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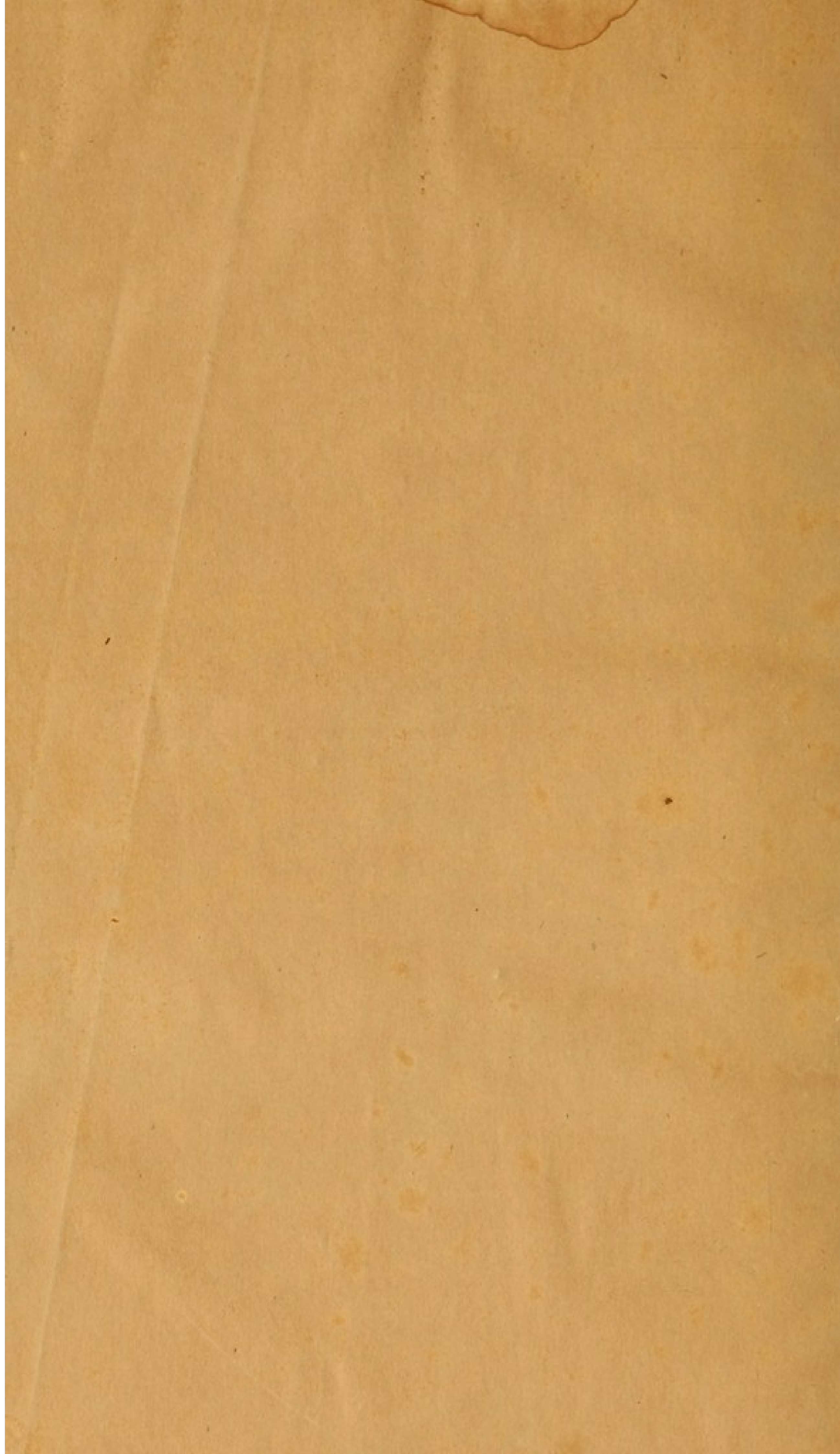

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OBSERVATIONS

ON

SOME OF THE MORE IMPORTANT

DISEASES OF WOMEN.

BY

JAMES BLUNDELL, M. D.

LATE LECTURER ON THE DISEASES OF WOMEN AT GUY'S HOSPITAL.

EDITED BY

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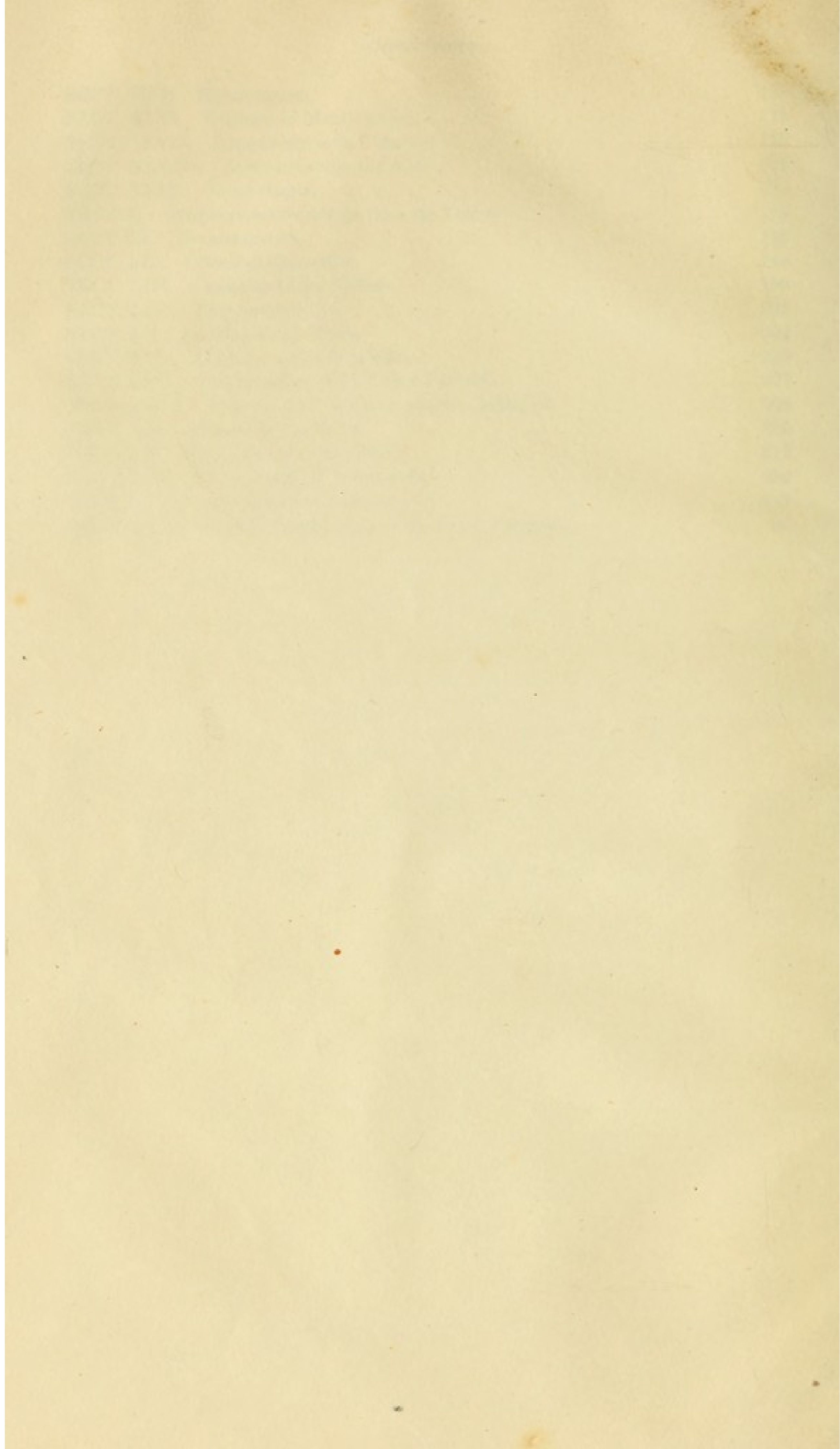
PREFACE.

"The Principles and Practice of Obstetricy" having met with a very favourable reception, both here and abroad, (being republished in America,) I am induced to offer the subsequent Observations, proceeding from the same valuable source of originating and instruction, Dr. Blundell. They are, avowedly, remarks [illegible], chiefly on some of the diseases of [illegible], and on the more practical points; yet limited as they may be, from their importance, and the high authority of the learned [illegible], I trust the volume will form a fitting companion to the present publication.

T. C.



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T. C.

OBSERVATIONS

ON

THE DISEASES OF WOMEN.

In making the following observations on the diseases of women, I shall not confine myself to any systematic arrangement, neither shall I extend my observations beyond the view of furnishing the reader with the most practical points. As, however, my instructions are especially directed to the inexperienced, I shall not omit such general remarks as are necessary to instruct and to advise, and shall, therefore, have to repeat some parts already entered into.[1]

SECTION I.

RETROVERSION OF THE UTERUS.[2]

The uterus, when healthy and unimpregnated, is placed at the brim of the pelvis, nearly in the centre of the cavity, the fundus lying forward above the symphysis pubis, the os uteri lying backward and below, in apposition with the middle of the sacrum, at the distance of about four inches from the os externum, the bladder being placed anteriorly, and the rectum behind. But when the uterus becomes retroverted, a total change of position ensues; the fundus falls down backward and below the promontory of the sacrum, and the mouth lies forward, and rises above the symphysis

[1] Principles and Practice of Obstetricy.

[2] Retroversion of the uterus was not perfectly understood in this country until it was first accurately illustrated by Dr. Hunter in 1754. This complaint had been before described by Mons. Grégoire, in his Medical Lectures, given at Paris, in 1746. An outline of the case which made Dr. Hunter acquainted with retroversion, and also of a second illustrative case, used to be related by the late talented Dr. Gooch, to his class at St. Bartholomew's. See *Dr. Gooch's Lectures, by Mr. Skinner*, p. 117. Ed.

pubis; so that more or less compression, both of the rectum and bladder, is produced, the vagina being drawn upwards, and carried forward above the front of the pelvis.

Symptoms of Retroversion.

When the uterus is retroverted, if the pelvis be small, or if the womb, not morbidly developed, chance, however, to be originally very bulky, or independently of any increase of its size beyond the virgin dimensions, it may give rise to a good deal of pressure upon the rectum, the bladder, and the parts adjacent, and, in this manner, it may distress much; more generally, however, where retroversion produces distressing symptoms, these will be found to be accompanied with an enlargement of the uterus, becoming, perhaps, as big as the head of a full-grown fœtus; this enlargement of the uterus, resulting most frequently from pregnancy; occasionally, however, from scirrhosity, from polypus, or from a collection of hydatids. When, from any of these causes, the uterus is enlarged in its size, it may distress the patient greatly; the rectum may be so obstructed, that the fæces will scarcely pass along, and it may be necessary to have recourse to injections, in order to remove its contents; the bladder, too, and the urethra, may be so embarrassed, that there may be a difficulty in introducing the catheter; and accumulations of water may take place in the bladder in such quantity as to give rise to disruption, or at least to injure the structures of this organ; so much so, that acute inflammation, or fatal chronic diseases, may ensue. Nor must I forget to mention that the womb continuing to grow in the retroverted position, it must make pressure on all the parts which are lying among the bones of the pelvis, and, in so doing, must give rise to more or less irritation, of various nature, according to the functions and other properties of the parts compressed.

Causes of Retroversion.

There are different causes, to which retroversion of the womb may be ascribed.[1] Whatever enlarges the uterus within limits, so as not to make it too bulky to undergo the retrovertive movement, seems to dispose to the disease; and hence it is, about the third or fourth month of pregnancy, when the womb becomes large as the head of a full-grown fœtus, that retroversion is most prone to take place, and the like effect is apt to be produced when, from scirrhus,[2] polypus, mole, or a combination of these affections, equal bulk is

[1] The most powerful cause, in the opinion of Denman, Merriman, Callisen, Boër, Sibergundi, and others, is the retention of urine.—*G. O. Heming's Diseases of the Uterus*, p. 75.

[2] Mr. Pearson relates a case, where scirrhus of the uterus was the cause. See *Pearson on Cancer*, p. 113.

acquired. Again, a cause which tends much to the retroversion of the uterus, and which, perhaps, is brought into operation in four cases out of five, is the accumulation of urine in the bladder. When the bladder becomes very much loaded with water, it makes a pressure on the uterus behind; and sometimes, when the pressure is great, it may, alone, produce the retroversion. In retroversion of the uterus, besides these two causes, there is yet a third which sometimes operates, and that is, the sudden action of the abdominal muscles. Women labouring under the retroversion of the uterus, will often tell you that they have had a fall, or that they stumbled, and made a strong effort to recover themselves; or, that by a violent fit of laughing or coughing, the attack was occasioned. I should suppose it rarely happens, that the mere action of the abdominal muscles alone, unaided by the distended bladder, is the cause of retroversion of the uterus; but when there is an accumulation of urine in the bladder, so as to produce, by pressure, a disposition to retroversion, the sudden action of the muscles may complete the displacement. Lastly, retroversion of the uterus is sometimes to be ascribed, though not frequently, to an enlargement of the ovary. A dropsical ovary or scirrhus, may give rise to retroversion; and, in these cases, just as the bladder overlays the uterus, so also may the ovary.[1]

Retroversion divided into two kinds.

Some persons appear to have imagined that *retroversio uteri* occurs during pregnancy only; this is not the truth, for independent of gestation, a retroversion may be produced; and hence, as the history of the two cases is very different, it becomes convenient to divide the cases into two kinds; of those, I mean, in which you have gestation as the cause of the enlargement of the uterus, and of

[1] A lady, labouring under ovarian dropsy, was recommended to take a ride in an open carriage every day, for the improvement of her health, taking the air as much as might be without occasioning much fatigue. In one of these excursions the vehicle chanced to be turned over, and she was thrown out with violence, her abdomen striking, with great force, against a stone that was lying by the road side. On her return home, a very copious secretion from the kidneys ensued, with great abdominal pain, when, in the course of a few days, she recovered, and found herself entirely liberated from the dropsy. Sometime afterwards she entered into the marriage state, and died with an irreducible retroversion of the uterus, about the fourth month. Inspection was made; when it appeared, clearly, that in consequence of the fall, there had been a rupture of the ovarian cyst, and a flow of water into the peritoneal sac, whence it was absorbed and effused by the kidneys, the remains of the cyst falling on the uterus, and carrying it down below the promontory of the sacrum, which, becoming retroverted, was fixed by inflammatory adhesion in the retroverted position. While this unhappy lady remained unmarried, she felt but little inconvenience, but marrying, and the enlargement of the uterus taking place, the womb, in consequence of adhesion, not admitting of replacement, a fatal pressure of the contiguous parts ensued.—*Dr. Blundell.*

those, too, in which the retroversion of the uterus is wholly unconnected with pregnancy.

Retroversio uteri connected with Pregnancy.

When the uterus is retroverted, it not uncommonly happens, that the retention of the urine becomes complete, for the enlarged womb bearing on the neck of the bladder, and on the urethra, a total closure ensues. In this case, the patient often tells her adviser that she has been placed in some situation of restraint; and that afterwards, on retiring and trying to evacuate the contents of the bladder, not a drop of the secretion would pass away; and this has occurred perhaps, for hours before you see her, the accumulation of urine having continued ever since: so that there is a great deal of pain of the abdomen, and heat with forcing and fluctuation, which may be felt as distinctly as in a case of ascites; indeed, the efforts may be as great as those of parturition, and may very much resemble them.[1] I wish it to be understood, however, and very important it is that this should be known, that, in the retroversion of pregnancy, you have not always, nor I think generally, these *complete retentions* of urine;[2] for often where the uterus is retroverted, the retention is partial. A woman may be placed in some situation of restraint, on retiring she finds, that the secretion does not flow in a full stream, though a few ounces may, perhaps, come away, not however without much pain and difficulty; from this time, a partial retention continues; day after day the fluid is sparingly emitted, but never in such quantity as to empty the bladder completely, till by-and-by, perhaps, the secretion begins to steal away involuntarily, or she may have strong efforts to pass the urine even against her will, and with every effort a small gush only may be produced, or there may be a continual dripping, and yet, notwithstanding all this, an accumulation of water may go on very gradually, so that several pints, nay, several quarts,[3] may be gradually accumulated. At this time there may be œdema of the lower limbs, especially if your patient be in a state of gestation; and you, for the case is exceedingly

[1] From the continuance of the distention produced by the accumulation of urine in the bladder, the tumour formed by it in the abdomen often equals in size, and very much resembles the uterus in the sixth or seventh months of pregnancy. Ed.

[2] In a case recorded by Van Doeveren, although the woman passed her urine every day, still she died from a ruptured bladder. In Mr. Croft's case, a small quantity of water occasionally passed involuntarily. *Lond. Med. Journ.* Vol. II. p. 381.—*Dr. Jewel.*

[3] A woman labouring under symptoms like ascites, a practitioner proposed, I think, the operation of tapping; there was, however, some obscurity about the case—a great deal of pain more especially; and an obstetrician being called in consequence, a catheter was introduced, and water was drawn to the amount of *seven* quarts, which had been accumulating in the bladder for two or three weeks, in consequence of a retroversion of the uterus.—*Dr. Blundell.*

deceptive, finding that the legs are œdematous, that the abdomen is large, as in the case of ascites, that it is fluctuating with distinctness, and that the patient, instead of having a retention of urine, on the contrary, supposes herself to labour under an incontinence of water, the retention of the secretion may be the last disease which you suspect, and you are inclined rather to ascribe all the symptoms to ascites, ovarian dropsy, dropsy of the ovum, or other causes. If you err, nothing is done, and the bladder may burst. Even when the bladder is emptied, chronic disease is to be expected, or there may be a fatal inflammation, or a miscarriage. In cases of this kind the urine may continue to accumulate for three or four weeks together.

Diagnostic indications.

That retroversion of the womb exists, you may in general suspect, provided your patient tell you she is unable to pass her water in a full stream, and in large quantities at once, or that she cannot pass it at all, although a few weeks, a few days, or perhaps a few hours before, this function was performed well enough.[1] You may moreover suspect the case, provided the patient complain of a great deal of pain about the hips, the thighs, the symphysis pubis, the sacrum, joined with, occasionally, bearings down; and provided, also, the rectum appears to be obstructed, so that the contents are not expelled at all, or when expelled, flattened, for this is said to be a symptom of the disease.[2] These symptoms should, in particular, excite suspicion, if the woman have been placed in a situation of restraint, and if she be in the third or fourth month of her pregnancy.

Discovered by examination only.

Although the above circumstances may be received as probable proofs, it is by examination, and by examination only, that retroversion can be distinctly ascertained. Investigating the case, the abdomen you will always find of a large or swollen size, and fluctuating very distinctly, especially when the retention has been of several days standing, and where an accumulation of water in the bladder has been gradually proceeding during the whole time; further, on examining internally, you will find a large swelling, a

[1] In some cases, the retention is, from the first, complete, and the symptoms go on increasing. In others, after a day or two, the urine begins to dribble away, but the bladder is never emptied; or there may, for some time, at first, be a little discharged, by straining, and afterwards the retention becomes total. *Dr. Burns' Principles*, 8th Edit. p. 250.

[2] By some it is maintained that no effect is produced on the rectum, nevertheless, the obstruction, in certain cases, is so great, that feculent vomiting is produced; and, moreover, on dissection, the rectum has been found stretched over the fundus uteri. *Dr. Burns*, 8th Edit. p. 250.

tumour filling the pelvis; the vagina lying before it, the rectum behind it; the os uteri in the general not to be felt, or not to be felt without a good deal of difficulty, when it lodges in front of the pelvis above the pubes. By an examination per anum, the same tumour may be felt, pressing the rectum to the hollow of the sacrum; and if both these examinations be made at the same time, you may readily find that the tumour is confined between the vagina and rectum. Again, on emptying the bladder, you further know the disease by ascertaining that the womb is not in its healthy situation, above the symphysis, the observation being made with facility, on account of the relaxation of the coverings; and by your observing, moreover, when the tumour is pushed from the pelvis, that it may be felt in its ordinary place. Some have gone so far as to assert, that the retroversion of the womb may always be known by the situation of the *os uteri*, telling us, that if the uterus is retroverted, the os uteri will always be found lying forward and upward, above the brim in front; but this is a mistake. The occurrence, notwithstanding, is sufficiently frequent to render the diagnostic worth your attention; remember, however, it is far from being the sole or principal one by which you are to judge, and for two reasons,—first, because, when the neck of the uterus is very flexible, as sometimes you may have a retroversion of the body only, the uterus doubling backwards upon its own cervix, and the os uteri remaining nearly in its former situation; or, secondly, which is a great defect in the diagnostic, where you have an enlargement of the ovary, this viscus will sometimes fall down and tilt the uterus, so as to place it with the fundus upon the promontory, and the mouth upon the symphysis, insomuch that the mouth of the womb will stand much in the situation in which it would be placed, provided the retroversion were of the ordinary kind. It therefore follows, here, as in many other instances, it is by a combination of *all* the symptoms, and not by any single indication only, that your opinion must be guided. When you find the abdomen fluctuating, the pelvis filled with a tumour, with the vagina before it, and the rectum behind, and when emptying the bladder, and raising the swelling, you find it takes the situation of the uterus, then, and not till then, can you determine, with certainty, the nature of the complaint.

Treatment of Retroversion.

Before you attempt to put the womb into its proper place, remember that it should be your first object to evacuate the bladder thoroughly, and for these reasons,—first, because, if the bladder is full, and lying over the cavity of the pelvis, it will obstruct the pelvis so much as to render the reduction of the uterus, if not impossible, very difficult, for want of room alone; and, secondly, because even if you were to overpower the resistance, and replace the uterus, by forcing the womb into the abdomen, you might tear the bladder, and, in that way, destroy your patient. Dr. Cheston was

once called to a case of retroversion, where large accumulations of urine had taken place, and where the catheter could not be introduced; anxious, of course, to avoid the need of tapping the bladder, (a very grave operation,) he and others attempted to reduce the retroversion without previous evacuation; but, fortunately, they did not succeed; I say fortunately, because if they had succeeded in urging the tumour above the brim of the pelvis, disruption of the bladder would most probably have been the consequence. Failing in this, of course they were obliged to have recourse to their surgery, and the bladder was tapped. Now it is remarkable that in this case, after the urine was withdrawn by means of the trocar and canula, the uterus itself returned into its proper situation: and though Cheston, who was a very able man, and others in company with him, could not succeed in replacing the uterus by manual effort, yet it returned itself after the bladder was emptied. Do not forget then, that the bladder should first be thoroughly evacuated by means of the catheter, for it will rarely happen that any tapping can be required, if the catheter be committed to proper and dexterous hands.[1]

Ordinary plans of reduction.

After the bladder has been emptied, you are then to place your patient in the usual obstetric position, on her left side, close to the edge of the bed, with the shoulders forwards, the loins posteriorly, and the abdomen facing a little towards the bed; this done, you pass your fingers, say all the fingers of the right hand, into the vagina, so as to lay them upon the body of the uterus, and at this time, if the patient can bear it, which often is the case, you place the thumb in the rectum, and thus get the uterus between the fingers, after which, with gentle pressure, frequently, I believe, without the least difficulty, you may raise the womb above the brim of the pelvis. This may be more easily done, if you have drawn off eight or ten pints of urine, or even two or three, because the abdominal coverings become exceedingly flaccid, and offer but little resistance. Should you fail in this attempt, under gentle efforts, I should then recommend to you an excellent practice, advised by Denman. This consists in keeping the bladder thoroughly emptied, letting the patient drink but little, causing her to perspire as much as may be, and introducing the catheter some two or three times a day;—the bladder being kept empty, the woman is placed with the pelvis inverted, for which purpose she ought to take her position on

[1] The dragging of the meatus urinarius upward and backward, and the flattening of the urethra, will always render the use of the catheter rather difficult: but the operation will be facilitated by advancing the concavity of the instrument backward, and making use of a flattened catheter, similar to those recommended in certain cases of midwifery, in which the head of the fœtus presses upon the urethra in the same manner. *Boivin and Duges on Diseases of the Uterus, by G. O. Heming, F. L. S.* p. 82.

the knees and elbows. The longer time she passes in this posture the better; it may be necessary to use it for hours together. She is not to give way merely on account of the fatigue, but to continue it as long as the replacement may require. Adopting this plan, the bladder being empty, the womb will sometimes return to its natural position, may be immediately, may be an hour or hours; but I think I may venture to add, that it pretty certainly returns at last. To this mode of treating the disease, I am exceedingly partial, because it requires nothing more than the introduction of the catheter and the abstraction of the urine; there is no introduction of the hand into the vagina; no entrance of the fingers into the rectum—no force—no contusion—and no lacerations.

Occasional plans of reduction.

Where you have sedulously tried the above measures, and without effect, the retroversion, day after day, continuing, I would recommend you to allow the urine to accumulate afresh, to the amount of two or three pints, afterwards abstracting it by the catheter, and then placing the patient on her knees and elbows, in order that you may have the full effect of gravity to help you, endeavour again to replace the uterus by means of manual operation. And in these cases I would further observe, there are three ways in which we may endeavour manually to replace the uterus. In the first place, we may content ourselves with merely placing in the vagina the fingers of the right hand, more or fewer of them, press the womb, and endeavour, at the same time, to urge the fundus above the brim. In the next place, placing the fingers into the vagina, and the thumb within the rectum, so as to get a double bearing on the uterus, we may attempt, by this double action, to carry the uterus above the brim. And lastly, if Dr. Hunter is to be our guide, one of the fingers of the left hand may be passed into the rectum, so as to get a bearing on the fundus uteri, which lies on the front of this bowel, and one or two fingers of the right hand may be rested upon the os uteri, and the bearings being obtained, the os uteri may be drawn downward when the fundus is elevated, and in this manner we may endeavour to urge the fundus above the promontory of the sacrum. This last mode appears plausible enough, when tried on machinery; but I am persuaded that, in most instances, it would be found to be very inapplicable in practice; in the first place, it requires the use of both hands, and the one must embarrass the other; then, too, it requires you to get hold of the os uteri, and bear downwards if you can; but what if you cannot? You may have a difficulty in reaching the os uteri; it may, too, become slippery from mucus; after your utmost endeavours, you may be unable to retain your hold. Practice, with experience, must lead you to choose for yourselves the one or the other of these three methods of performing the manual reduction; for myself, however, I decidedly prefer the

second method of operating, by placing the fingers in the vagina, and the thumb within the rectum.

Treatment after reduction.

When the reduction of the uterus has been effected, you should direct your patient to continue in bed for two or three weeks. If there is any disposition to a return of the retroversion, you should advise her to place herself upon the knees and elbows, once or twice in the day, for an hour or more at a time; and you may direct her also to empty the bladder repeatedly in the course of the twenty-four hours, never suffering any large accumulation of urine to take place. Under this practice, the uterus may be expected to continue in its situation above the brim; because, in the course of a fortnight or three weeks, in the case of pregnancy, the uterus grows and enlarges so rapidly, that it becomes too bulky to admit of displacement. To these remarks let me add this caution, that after the bladder has been evacuated, and the womb has been replaced, you should always be on the watch for inflammation of the bladder or of the abdomen, for such inflammations may not unreasonably be expected to occur.

Cases in which the retroverted Womb cannot be reduced.

Now and then there are met with, cases in which a reduction of the retroverted position is attempted, but cannot be accomplished. The treatment here must vary, according to the effects of the pressure. If the urine can be drawn off by the catheter, or passed by the ordinary efforts, and if the uterus does not compress the rectum with that degree of force which may prevent the discharge of its contents, it is unnecessary that you should interfere, but you should rather trust to the natural powers. As the womb enlarges, it may rise out of the pelvis more or less completely, and thus, day after day, the compression may become lighter and lighter, until, at last, it is removed altogether. It does not follow, therefore, because a womb remains retroverted, that the woman must necessarily die; and consequently, in attempting reduction, you ought to be careful not to use the higher degrees of force, as the case is not sufficiently desperate to justify it.

Tapping of the Bladder; section of the Symphysis Pubis.

It may happen when the womb remains retroverted, that under the pressure which it makes on the contiguous parts, neither the rectum nor the bladder can be cleared of their contents, as in Dr. Cheston's case, noticed already. Now, if the obstruction of the bladder is complete, and the accumulation of urine large, it is peremptorily necessary that something should be done, otherwise

rupture of the bladder and death may follow.[1] In such cases it has been proposed[2] that we should tap the bladder; and, now and then, this practice would seem to be proper enough, and may, perhaps, be the only effectual mode of proceeding in some cases. It has been proposed further, if the reduction of the womb is prevented solely by the deficiency of room, that we should divide and open the symphysis pubis; Purcell, Gardien, and Cruickshank, recommended a measure of this kind. I am not aware that it was ever acted on under these circumstances; but if the case were well chosen, I can conceive it might be of use to the patient; at all events, it would render the introduction of the catheter more easy, and the room in the pelvis somewhat more capacious. Alarming as the operation is, it is far from being a fatal one; nevertheless, as I have never myself seen this operation performed, and, indeed, know of no case of retroversion in which it has been attempted, I do not venture to recommend it.[3]

Tapping of the Uterus.[4]

In a case of retroversion, where the catheter could not be introduced, nor the rectum emptied, I should myself feel inclined to consider the propriety of tapping the uterus, which might, perhaps, be found on the whole, to be as desirable an operation as the tapping of the bladder, or the dividing of the symphysis pubis. I should not take a great trocar and canula, as if I were going to tap in a case of ascites, wounding a great many vessels, and perhaps occasioning death; but I should prefer an instrument of a very small size, by which I could perform a sort of acupuncturation.[5] Perhaps an instrument, on the principle suggested, might be introduced into the uterus without much danger; and then, if a contrivance were fixed upon the other end of it, so as to bring away the fluid by a sort of

[1] Mr. Lynn, a surgeon in Suffolk, knew an instance of the urine becoming fatally extravasated in the abdomen, in a case of retroversion of the uterus, in consequence of the patient's refusal to submit to have the bladder punctured. In this case, the bladder burst or sloughed, and immediately afterwards the woman miscarried, but the uterus after death was found to be still displaced.—*Medic. Observ. and Inq.* v. p. 388.

[2] Sabatier proposed tapping the bladder; but others, from not having met with any instance in which the urine could not be drawn off by a catheter, or by Baudelocque's plan of raising the cervix uteri with the finger, do not agree to Sabatier's proposal.—Ed.

[3] Boivin, Duges, and others, question strongly the advantages derivable from such a measure, considering the pubic bones must be separated very far indeed to effect the replacement of the uterus.—Ed.

[4] Dr. Hunter advised the introduction of a trocar into the body of the uterus through the posterior parietes of the viscus so as to let off the liquor amnii. Such an operation has been performed, and with success. According to Boivin, Baynham appears to have done it, and Boyer quotes a second successful case recorded in the *Recueil des Thèses de la Faculté de Paris.*—Ed.

[5] I am told this has been tried upon the hearts of animals without necessarily endangering life.

suction, it may be that a good deal of the liquor amnii might be drawn off. If the uterus was thus evacuated of the liquor amnii, there would immediately be a considerable reduction of its bulk, and perhaps, at length, an expulsion of the ovum. The womb might be tapped either from the vagina, or the rectum; but vaginal tapping would, I conceive, be preferable.[1]

Destruction of the Ovum.

In retroversion of the uterus, requiring especial treatment, it would not, perhaps, be impossible to introduce some small, yet strong instrument, into the cavity of the uterus, along the mouth and neck, so as to break up the structure of the ovum, and in that way, to give rise to its expulsion. It is very easy to conceive, that if the os uteri could be felt, and if an instrument could be carried into it, with which the ovum could be broken to pieces, an expulsion of the ovum might ensue. But be it remembered, all these measures are more or less hazardous; they are only to be had recourse to in those cases where there is no other hope; if the ordinary methods of reduction have been tried without avail, and the bladder is in danger of laceration, then are we justified in making attempts otherwise unwarrantable.

Retroversion continuing throughout Pregnancy.

A retroversion of the womb may happen in the earlier months, and so continue throughout gestation, even up to the time of parturition. Well then, what is to be done in these cases? Why, a retroversion of this sort is recorded by Dr. Merriman, a very solid and prudent practitioner, and the object of it is to prove, that the less the obstetrician interferes, the better. When first we examine internally in these cases, we find no os uteri whatever, for it lies above, out of reach, and the first impression made on the mind is, that the Cæsarian operation must be had recourse to; but if the practitioner suffer the woman to take her pains, the os uteri becomes gradually more and more expanded, and, as it enlarges, the inferior margin approaches nearer and nearer to the brim of the pelvis in front, till at length a segment of it can be felt in the region of the symphysis pubis; this segment descends, and enlarges more and more, until the head comes within reach, and the child is born, probably, if not in all cases, dead, the mother escaping, though not without much pain and difficulty. It appears, therefore, that in a retroversion of the uterus, either in the earlier or latter months, it

[1] Hamilton, Dewees, White, Jourel, &c., have proposed and attempted to pierce the membranes of the ovum, but in every instance without success. Boivin and Duges recommend for this purpose the employment of a male catheter of conical form, and much curved, adapted in a word, for reaching and penetrating the os uteri in its unnatural position behind the pubis.—*Boivin and Duges' Treatise, by Mr. Heming*, p. 85.

does not necessarily follow, that you ought to distrust the natural efforts.

Retroversion after Delivery.

I have sometimes found a retroverson of the uterus occurring after parturition; and, on the whole, it is an accident, though not perhaps very frequent, yet it may, however, easily occur, for after delivery, the womb is about as large as the head of a full-grown fœtus, and where the bladder has been suffered to become overloaded, after laborious labour, for example, the uterus is liable to become retroverted. In a case of this kind, you have only to draw off the urine, for as the womb becomes less and less every day after delivery, and the pressure gradually decreases, of course it is not necessary that any thing should be done as long as no symptoms press. If, indeed, after emptying the bladder, you can replace the womb with little effort, this ought to be done; but on the other hand, if your attempts to reduce the uterus fail, content yourselves with emptying the bladder when needful, watching the symptoms with unceasing vigilance.

Replacement might, perhaps, be obtained, as in the ordinary retroversion, by placing the patient on the knees and elbows, as formerly advised, but the propriety of this practice during the first few days after delivery may admit of a doubt.

Retroversio Uteri independent of Pregnancy.

It does not follow that enlargement of the uterus from pregnancy alone, predisposes to retroversion, for the womb may be enlarged from scirrhus,[1] polypus,[2] mole, or hydatids, and especially by the two former; hence it may acquire the size of the fœtal head, and become retroverted. But here, however, owing to the slow growth of the uterus, except in cases of hydatids, the symptoms of pressure may supervene in a very gradual manner, there being much irritation about the bladder and rectum, joined with obstruction of the urethra, more or less complete, and this perhaps for weeks or months together, before the nature of the disease is ascertained. In these cases it is our main object to replace the uterus, if this can be effected; and to accomplish the point, we must proceed in the same manner as if we were attempting to replace the retroverted womb

[1] I have a preparation of a uterus enlarged from scirrhosity, and retroverted; it produces all the symptoms of the disease, with this difference, that they came on more gradually, because the growth of the scirrhus was not so rapid as that of the uterus under pregnancy. I have also another, for which I am indebted to a very excellent young gentleman, the late Dr. Cox, son of the respected medical publisher; it is a specimen of tubercular scirrhus and polypus combined, and such a womb becoming retroverted, must give rise to the symptoms of the disease.—*Dr. Blundell.*

[2] Desault speaks of retroversion from this cause.—Ed.

when pregnant. Of course, the replacement of the womb does not overcome the original disease.

In different women, the womb varies much in its virgin size, for in some it is three times as large as in others. Now, if it so happen that the womb is very small, and that retroversion has taken place without impregnation, the pressure which it occasions may be so inconsiderable, that the nature of the case may remain unsuspected; but when the womb, though unimpregnated,[1] chances to be of large size, especially if the pelvis is small or contracted, considerable pressure may be produced, and we are first led to investigate its nature in consequence of the irritation and obstruction of the rectum and the bladder, when the accident is soon recognised by the characteristics before given. The treatment of this case must proceed on the same principles as that of retroversion associated with gestation.

Prognosis of Retroversion.

With respect to the prognosis of retroversion, I have to remark, that where the womb is replaced, the patient in the general does well enough, provided you proceed on the principles prescribed; yet it is not impossible that miscarriage may take place after a reduction; for in two or three instances I have known this take place. Inflammation of the bladder of the acuter kind may occur, and you may have a chronic disease of this organ. Where there is a good deal of inflammation, your patient may die of exhaustion. You may find that some officious hand has thrust a catheter through the back of the bladder into the peritoneum, and that the escape of the urine into the peritoneal sac has destroyed the patient. The bladder, in some rare cases, may be burst open;[2] or, as in

[1] Dr. Marcet gives an instance of retroverted uterus, without pregnancy, producing constipation and vomiting. See Cooper on Hernia, part 2, p. 60.

[2] I possess a very beautiful preparation, which shows the retroversion of the uterus, with disruption of the bladder. The uterus is as large as a child's head; above the retroverted uterus is the bladder, which has been ruptured. It is remarkable, that in this rupture of the bladder, which has arisen from its over-distention, it is not the front, that surface of it I mean, which has no peritoneal covering, but it is the posterior surface, invested by the peritoneum, the back part of the body, which is the region of the rent. Now it was this which first led me to propose, that where a rupture of the bladder takes place in any case, but especially in a retroversion of the uterus, we should not give the patient up for lost; for if there is reason to believe that the bladder is burst into the peritoneal sac, we might make an opening into the peritoneum—say above the symphysis pubis, by which we might discharge the urine, and then injecting distilled water, of the temperature of 98°, we might wash out the viscera, so perhaps, as to prevent a general peritonitis; this done, we might draw the bladder up to the opening in the abdomen, and close the rent by ligature. This operation I have performed on several rabbits; in one or two experiments I brought the bladder out, tied it up, and took away about one quarter of it, viz. the whole of the fundus, and the animal did perfectly well. This operation I have never had occasion to try on the human subject; but in a case otherwise desperate, I

one case which I saw myself, the ovary may be dropsical and ruptured, and this may assist in destroying the patient. So that although these retroversions are, on the whole, by no means very dangerous, it does not always follow, even when the womb is replaced with skill, that the woman will ultimately do well. Those cases are more dangerous and unfavourable, where the retroversion of the uterus is connected with some other disease, whether enlargement by hydatids, or scirrhosity, or polypus, for when you relieve the retroversion, you are curing only that part of the complaint which depends upon displacement, while the original affection still continues in all its force.

SECTION II.

ANTEVERSION OF THE UTERUS.

The womb, when healthily situated, is placed obliquely, with its fundus forward, and its mouth posteriorly, the fundus lying a little, and but a little, above the level of the brim, and the mouth and neck a little below it. Now, it is said, that sometimes a change of position may take place, in which the fundus comes forward and the mouth recedes, and which altered position writers have denominated *anteversion of the uterus;*[1] but, the truth is, that the womb is almost anteverted,—frequently the fundus is pushed down below the symphysis pubis. Repeatedly, in making examinations, have I perceived it in this position, between my fingers; so that, in my opinion, these anteversions of the uterus can scarcely be looked upon as extraordinary and morbid. I might say, with truth, that they are perfectly healthy; and notwithstanding some one or two cases which have been put upon record,[2] I look on this as a variety of disease on which it is unnecessary to dwell.

should be inclined to recommend it. I may remark here, that since I have suggested this method of closing the bladder by ligature, Mr. Travers has performed the operation on the stomach. There was a slight wound in the organ; he boldly tied up the aperture; the thread came away, and the case did perfectly well.—*Dr. Blundell.*

[1] Of this accident I have never seen an instance during gestation, and, from the nature of the case, it must be very rare; but I have met with it, from enlargement of the fundus uteri, in the unimpregnated state. The symptoms are, weight in the lower part of the abdomen, a desire to make water, but difficulty in doing so, the existence of a tumour near the pubis, the direction of the os uteri to the sacrum, and some impediment to the passage of the fæces, with bearing down pain. *Dr. Burns' Principles*, 8th Edit. p. 260.

[2] Chopart and Baudelocque relate a case of anteversion in the second month of pregnancy. Boivin and Duges saw a case in which the fundus

SECTION III.

RECTO-VAGINAL AND OTHER PELVIC TUMOURS.

It not unfrequently happens that we meet in the pelvis with tumours of different sizes, some as big as a pullet's egg, and some as big as the head of a full-grown fœtus. These tumours I am accustomed to divide into two kinds; those which are not situated between the vagina and the rectum, and the recto-vaginal, or those which are placed between the rectum and vagina.

Tumours not recto-vaginal.

On tumours of this class, and which occur independently of pregnancy, I have but few useful practical observations to make; I shall therefore pass over them lightly, observing merely, that they grow sometimes from the promontory of the sacrum, and sometimes from the sacro-sciatic ligaments, and occasionally from other parts.[1]

uteri inclined forward, lower down than the cervix, and in which reduction seemed impracticable; yet nature alone, during the progress of gestation, accomplished the cure. The same authorities also say, they have had frequent occasions of observing, after parturition, a decided inclination of the fundus uteri forward, the condition of the womb being intermediate between obliquity and retroversion. The causes, moreover, assigned by Boivin and Duges as producing anteversion are, first, congestion, in consequence of repeated efforts, as in laborious business (*Desgranges*); secondly, vomiting, as in the case, with incipient pregnancy, given by Chopart; thirdly, difficult defecation; fourthly, accumulating of fæces in the sigmoid flexure of the colon; fifthly, morbid attachments resulting from inflammation of the uterus and peritoneum; and lastly, any physical efforts which may act powerfully on the womb or its connections. The treatment is very simple; first evacuate the urine, and then the cure may be attempted by the use of leeches to the groin and pudenda, baths, lavements, fomentations, narcotics upon the back, and raising the pelvis a little upon a pillow, continued for several weeks, or even months. Where the uterus is slight, sensible, and little congested, the pessary may be applied. The pessary, generally used, in cases of anteversion, is the cup and ball, having a deep cavity to receive the cervix uteri. The proper position of the uterus is restored by pushing up the fundus, and drawing down the cervix, either with the finger or with the *cuiller fenêtrée;* it is then to be preserved in its place, by keeping the patient on her back, and by pressing with one hand upon the hypogastric region as deeply as possible, whilst the pessary is introduced with the other. The cervix uteri is made to enter into the cup, by repeated movements from before and behind, while the finger ascertains its position; being perfectly adjusted, the instrument is still further introduced, and placed in the axis of the vagina. The *bung-shaped* pessary, especially the *élytroides* of M. J. Cloquet, may answer for the treatment of less important cases; in others, more slight, a small sponge passed into the vagina, behind the os uteri, when very prominent, has served to support the uterus. *Boivin and Duges' Treatise*, p. 63, 64, 65.

[1] These tumours, when connected with pregnancy, may cause great pain and inconvenience during delivery: the difficulties and management of

Recto-vaginal Tumours.

Where tumours form in the pelvis, they are usually of the recto-vaginal kind. Between the vagina and rectum, water, intestines, and, above all, an enlarged ovary may lodge. There are various causes from which the ovary may become enlarged, namely, from dropsy, from scirrhus, and from extra-uterine gestation, or the like. When the ovarian enlargement thus takes place, the tumour frequently falls down between the rectum and vagina, and may give rise to much inconvenience. If it make but slight pressure on the pelvis and bladder, it may not require much attention, and even when the woman is very uneasy, and greatly distressed by it, as it becomes larger, it may get a bearing above the brim of the pelvis, and a spontaneous cure of all the symptoms will be obtained. On the other hand, where it so happens that the pelvis is small, and the ovary large, and the parts irritable, the tumour lying in the hollow of the sacrum, between the vagina and the rectum, very violent symptoms may be produced. In the first place, there may be a great deal of irritation about the rectum, and your patient may be supposed to labour under *hemorrhoids;* secondly, there may be a good deal of obstruction in the bladder, so that the urine may be intercepted, or may pass with difficulty, a catheter being required; thirdly, there may be a great deal of central pain felt in the back, and about the symphysis pubis, together with a shooting down the thigh, the patient saying that she feels a ripping pain, running, perhaps, in the course of the nerves, the anterior crural, and the great sciatic especially; and lastly, the patient may be paralytic in the lower limbs, or one limb may be weaker than the other. The paralysis may not be complete, but the muscular power may be reduced; the attack may be so slight, that the patient scarcely perceives it, or it may be so considerable, that she is obliged to lie on the sofa, and to be lifted to bed. Thus, therefore, where want of power in the lower limb, nervous pains, obstruction of the bladder, and obstruction of the intestines occur, there is good reason for suspecting the existence of some tumour or other in the pelvis. By a careful examination, the disease is readily ascertained.

Treatment.

In cases of recto-vaginal tumours, the swelling should be pressed above the brim of the pelvis, provided this can be accomplished without much effort, and you must proceed precisely on the same principle as in the case of a retroverted womb. If you cannot place the tumour above the brim, you must leave it in its situation, palliating the symptoms, by keeping the bladder empty, and advising the

which, have been considered at length in "The Principles and Practice of Obstetricy." Ed.

patient to use that sort of food and drink which will not require much evacuation. In these cases, I know of no effectual mode of relieving the paralytic symptoms, or the pain which the patient has in the lower limbs, though the latter may be palliated somewhat by means of bleeding and anodynes.

Spontaneous rising of the Tumour.

To those labouring under enlargement of this kind, it may be a matter of great comfort to know that when these recto-vaginal tumours become large, they not infrequently rise spontaneously above the brim, so that the disease cures itself. I have more than once seen patients labouring under much abdominal intumescence, and an ovarian dropsy, whose first symptoms, though attributable to this cause, have been clearly misunderstood. This, therefore, you should mention, because it is a great encouragement to patients; the larger the tumour, the more likely it is to quit the pelvis, or, at all events, so to alter its bearings, that the symptoms arising from compression may be effectually relieved.

Prognosis.

Women labouring under this complaint, if single, should be urged to continue so, and the danger will be little; but if married, abstinence is her best security: for let me here add, that it is in the highest degree dangerous for a woman to become pregnant while she labours under a large recto-vaginal tumour; if she does, the high probability is, that both herself and the child will perish.

SECTION IV.

DESCENT OF THE PELVIC VISCERA.

When the pelvis is large, and the vagina lax, or indeed from other causes, the viscera in the pelvis, the vagina, the bladder, the womb, or other viscera, sometimes come forth.

Different degrees of descent.

The descent of the parts within the pelvis may occur in different degrees; sometimes you find them lying in sight, between the limbs, forming a large swelling there as big as the closed hand, or as large as the head of a full-grown fœtus; in other cases, they descend merely to the perineum, on which they rest within, occasioning the part to swell, and forming a round tumour, when the patient urges.

Again, the descending parts may lie considerably above the os externum, the mouth of the womb sinking merely two or three inches below the level of the brim, at the same time the pelvic viscera generally, or the uterus in particular pushing towards the outlet of the pelvis, but without reaching the external parts.

Principal and proximate Causes producing these descents.

It is to a variety of causes, operating more or less in combination, that these descents may be attributed. Where a pelvis is of small size, it is by no means impossible that the viscera may come down; but they are much more liable to displacement, if the pelvis be of extraordinary capacity. When the vagina is closed in the natural degree, there is little risk of these accidents; but if there be much vaginal relaxation, whether this arises from mucous discharges, or from floodings, or from frequent child-birth, or from other causes, this dilatation contributes greatly to the descent of the viscera; for the smallness of the vagina is a principal security against these troublesome displacements.[1]

Another cause is an elongation of the broad ligaments, which may become stretched so far as to allow of a more extensive movement of the womb, which they ought to retain in connection with the sides of the pelvis. Lastly, I may add, a certain aptitude which the parts acquire through frequently descending; for if a woman has once laboured under procidentia of the bladder, womb, or vagina, the descent of the parts, often repeated, seems to form and adapt them to the change of position, hence for a length of time afterwards, if not throughout the remainder of life, there is always more or less tendency to yield to the impulse. Therefore among the more immediate causes of these descents of the pelvic viscera, you may enumerate the three following as of principal and proximate operation,—the conformability of the parts, derived from a frequent descent,—the elongation of the broad ligaments,—and the relaxation of the vagina,—more especially when they are acting in co-operation with an unusually large pelvis.

Weight of the Uterus a common cause.

If the womb becomes enlarged and heavy, (large and as weighty, for example, as the head of a full-grown fœtus,) whether the result of pregnancy, scirrhus, polypus, or other causes, it no doubt tends to bring on a polapsus. Now these descents are more especially incident to women immediately after delivery, when the largeness of the vagina, and the increased weight of the uterus, are found to

[1] The naturalist might, I think, reasonably enumerate the small size of the human vagina, as compared with that of any other of the mammiferous females, among the indications that our race was designed for the erect posture.—*Dr. Blundell.*

concur; accordingly you will find, that most women who have had a great many children, if they rise early, within the fourth, or fifth, or sixth day, complain, more or less, of symptoms indicating a prolapsus of the uterus.

Action of the abdominal Muscles also a common cause.

Where the pelvis is large, and the softer parts greatly relaxed, independently of any very strong action of the abdominal muscles, procidentia uteri may occur; but a principal cause acting in co-operation with those already enumerated, is the strong action of these peculiar parietes, to which many women, from various causes, are subject. Repeated vomitings, much coughing after delivery, and the urgings produced by diseases of the rectum or of the bladder, all have a tendency to bring on the descent of the womb. So also women, as in the lower circles of life, who are accustomed to carry great weights on the head, or are employed in washing, wringing, basket or tub-lifting, or the like, become very subject to prolapsus.

The operation of various remoter causes.

After floodings and miscarriages, women may be very liable to the disease, because these miscarriages and floodings have a tendency to relax, and lay open the parts. In like manner, early rising after delivery, coughs, vomitings, and urgings during the puerperal state more especially;—a life of labour;—pregnancy of the earlier months, particularly in those women who have borne many children;—the relaxation of weak health;—may all operate more or less remotely, in producing this disease—an accident more common after the age of twenty, or five-and-twenty, but from which even children are not altogether exempt.

Division of these cases into three kinds.

With a view to further remarks on these distressing and obstinate affections, the descents of the pelvic viscera may be commodiously divided into different kinds, namely, those in which there is a descent of the vagina, those in which the rectum descends, and those in which there is a descent of the womb and viscera generally, in which the vagina descends; not to mention some other varieties of prolapsus, of smaller interest.

SECTION V.

DESCENT OF THE VAGINA.

We sometimes meet with cases of considerable relaxation and elongation of the vagina, so that this part protrudes either laterally, in front, or posteriorly; the rectum[1] or bladder respectively issuing with it, more or less. In some cases, the descent may be more slight. The causes in either variety are similar; prolapsus of the womb, laceration of the perineum during labour, a loaded state of the rectum, particularly in women of sedentary habits, hemorrhoids, the pressure of an ovarian cyst,[2] or whatever may occasion pressure on or relaxation of the vagina.

Symptoms.

The descent at first is small, but at length becomes considerable, and then there protrudes a sort of fleshy mass, which, till a careful examination is made, you might suppose to be polypus, or the result of a descent of the womb or the bladder. It is only where the disease has been of some continuance, that it forms tumours of large size, bulky, for example, as a pullet's egg. In the earlier stage, the tumour is very small, perhaps not larger than the ball of the apex of he fore-finger, forming, at the back or front of the vagina, or laterally, or in all the three positions at once, protrusions by no means uncommon. These protrusions, if small in size, may be looked upon as natural to the part; but they often show a disposition to increase, and then they begin to attract attention, and, as the patient conceives that some intumescence is forming, she is very often fearful it may be the commencement of some other more formidable disease, of cancer particularly, hence it is highly important you should be able to know it.

Necessity of a careful examination.

A patient consulting, suspecting, from the description given, that there is some more important disease forming, you ought to make an examination; and where this is carefully done, the nature of the

[1] The rectum, in every degree, is more or less drawn down, and brought forward, sometimes so much so, as to form a kind of pouch in the protruded vagina.—*Dr. Burns.*

[2] In a case of this kind during labour, Sir C. M. Clarke was consulted, under a supposition that the prolapsed part was the bag of membranes formed by the amnion and chorion, and in which attempts had been made to rupture it. The case was terminated by opening the child's head, by means of which operation the life of the woman was saved. After the delivery the cyst went up again into the cavity of the abdomen, and the vagina being no longer pressed down, regained its natural situation. *Clarke on Diseases of Women.* ED.

affection may be sufficiently ascertained. But let me here remark, that when the vagina comes down a little way only, forming a tumour not larger than the first joint of one or two fingers, you are liable to overlook it in making your investigation.[1] A woman says there is a swelling, which she conceives to be polypus, or prolapsus, or scirrhus; at all events she is satisfied that there is a tumour, and you examine, and say she has none; still your patient is dissatisfied, and you examine again, but find none; the reason of which is, that if the examination be made somewhat suddenly and carelessly, and particularly where the woman has had a large family, the protruding part may be pressed back unperceived, as it yields readily under the entrance of the index, and in that way the deception may arise. If you are, therefore, incompetent to the nice investigation of these points, and are not on your guard against this particular fallacy, the existence of this protrusion is liable to be overlooked; but if the investigation be conducted with all due care and caution, the nature of the affection may be easily ascertained.

Treatment.

If the vagina descends in a greater degree, so as to give rise to an obvious swelling as large as a pullet's egg, I believe the only, or the most effectual mode of giving relief, is by means of an *egg-shaped pessary.* In the lower ranks of life, an egg itself, hard boiled, and properly supported, may be introduced; or you may recommend one of the *balloon-pessaries,*[2] which appear to be very well adapted for the purpose. If the parts descend in a slight degree only, you may then endeavour to cure the disease by means of astringents: solutions of alum,[3] sulphate of zinc, preparations of copper and of galls, according to the effect produced, to be used as injections and washes of various strength, but I fear that much is not to be expected from them. If there is much inflammation, leeches, fomentations, and poultices, will afford relief, and I would fain persuade myself that in some cases of delivery, if the woman be confined to the horizontal posture strictly, say for five or six weeks after parturition, a radical cure of this disease might be obtained, for under this condition of the genitals, the vagina is very prone to contract itself.[4] In descents of the vagina, bandages and compresses may be of service.

[1] Very few symptoms attend the complaint; there is some pain in the back, but not considerable, and some transparent mucus comes away from the vagina. Ed.

[2] Invented by a very ingenious practitioner, Mr. Pointer, of Camden-town, and sold by Thompson, of Little Windmill Street.

[3] Solutions of alum in a decoction of oak bark, may be thrown into the vagina, several times a day; or it may be applied to the part affected by means of a sponge. Cold water applied to the loins and to the external sexual parts, will also assist the recovery of the patient by giving strength.—*Sir C. M. Clarke.*

[4] In making this observation, however, I may remark, that I have one

SECTION VI.

DESCENT OF THE BLADDER.

The descent of the urinary bladder may occur in different degrees. In some extreme cases, the bladder lies forth between the limbs of the patient, forming a tumour there, large when the bladder is full, small when it is empty, and generally about the size of an orange, admitting the introduction of the catheter into its cavity.

Symptoms.

The higher degree of this complaint may be readily discriminated, by the tumour varying in bulk according to the quantity of the secretion, and admitting the catheter into its centre. It sometimes happens, that the descent of the bladder is in the slighter degree only, and then no tumour lies out under the eye, but there is merely a tumour in the back part of the symphysis pubis. When the bladder is full, the swelling is very large, blocking the vagina up; and when it has been emptied by the introduction of the catheter, it becomes much smaller. If you pass up the instrument, you may distinguish it within the cavity of the swelling (an excellent indication of the disease,) and under voluntary urging, the swelling is found to increase considerably in its size; by these two marks the disease may be readily known.

Sometimes, instead of a mere descent of the bladder, inverted by the vagina, you have a descent of the uterus also. If you examine the bladder in front, and introduce the catheter, and then extend your examination, you may distinguish palpably a very hard substance, which, by its feel, its form, its situation, and above all, by its mouth, is known to be the uterus; the diagnosis is made still more complete by the cautious introduction of a small sound into the womb.

If prolapsus of the bladder is carefully investigated, and you ascertain the various characteristics enumerated above, you may distinguish it with facility from all other affections; but if you make your inquiries in a very careless manner, you are liable to confound this disease with the descent of the uterus, with inversion, with polypus, or with the descent of the vagina.[1]

patient who has laboured under the severer form of this disease for a considerable time, and who has been delivered two or three times, without obtaining effectual relief; it is true that she has never submitted completely to the discipline of the long-continued horizontal posture; but I could not perceive, in her case, that the state of the vagina after child-birth produced any obvious tendency to constriction of the part.—*Dr. Blundell.*

[1] If the prolapsus should occur during labour, be on your guard that you do not mistake the descending portion for the membranes, for by this error, irreparable mischief has been inflicted on some women. Ed.

Treatment.

When the bladder descends a great way, so as to form a tumour between the thighs, the only effectual mode of relieving this disease is by introducing something into the vagina; an egg-shaped pessary, or even one of the round pessaries, adapted to the capacity of the dilated parts, ascertained by a trial of instruments of different diameters. If the bladder have not pushed down, so as to make its appearance externally, a pessary may not be necessary; and in married women especially, it is desirable that this instrument should not be used. It should be our principal indication to keep the bladder empty, and to tell the patient to abstain from all urging, a rule to be observed with the utmost strictness, as the infraction of it must increase the descent. Lotions of alum, of sulphate of zinc, of sulphate of copper, of galls, and so on, are recommended, of various strength, according to the effect produced. If a patient becomes pregnant, I should recommended that she should be confined to the horizontal position for a few weeks after delivery, in order to allow of the vagina contracting itself, and giving the bladder a more effectual support.

SECTION VII.

DESCENT OF THE UTERUS.

In the same manner as women are liable to the descent of the vagina and of the bladder, so also are they still more frequently liable to a prolapsus of the uterus.

Symptoms.

In cases of prolapsus uteri, the womb is variously disposed; sometimes it comes down nearly to the outlet of the pelvis, and occasionally it prolapses one or two inches only, lying but little below its ordinary level, yet not infrequently occasioning the most troublesome inconvenience.

Divided into three varieties.

There are three varieties of this complaint, relaxation, prolapsus, and procidentia. When the womb protrudes beyond the os externum, the disease is called *procidentia;* when it remains at the outlet, *prolapsus;* when it scarcely subsides below the level of the brim, it then constitutes what is denominated a *relaxation.*

SECTION VIII.

PROCIDENTIA UTERI.

I have seen several cases in which the vagina has been forming a large tumour lying forth between the limbs; this cyst containing not the womb merely, but in part the bladder, the small intestines, the ovaries, and perhaps the rectum, for where you have procidentia, it very rarely happens that the womb only descends, generally the other viscera come with it, in a larger or smaller mass. A case of this kind, if you are incompetent, you may mistake for polypus, inversio uteri, not to mention a large descent of the bladder only; but when you examine the tumour with care, you will frequently discover, first, that, on the surface of the tumour, the rugæ of the vagina are more or less conspicuous; secondly, that you can introduce a catheter into the tumour, provided the bladder be come down; thirdly, that, on passing a finger into the rectum, it may perhaps descend into the back of the cyst; and lastly and above all, that at the lower part of the cyst, the os uteri may be found. Sometimes the os uteri is so conspicuous, that you can see it at the first glance; but at other times it appears under the form of a very minute aperture, the usual tubercle being wanting. If you are doubtful whether this is or is not the aperture leading into the cavity of the uterus, suspecting it may be nothing more than a mucous follicle, take a blunt-ended probe, and, with gentleness, slide it along the reputed opening so as to ascertain the fact. Now if you have all these characters, or a great part of them combined, you need be at no loss to ascertain the nature of the disease.

Health of the patient.

In procidentia of the womb, it is remarkable that the health of the patient often suffers very little; indeed it has been observed, with truth, that the general health is often much worse in those cases in which there is a mere relaxation, than in those cases of procidentia in which the vagina and uterus lie forth under view.

Treatment.

When procidentia uteri can be clearly ascertained, it ought to be our first object to replace the part, provided this can be accomplished with safety, and this, in general, can be done readily enough. You place the woman in the recumbent position; you use the catheter: and you get a general bearing on the tumour, and press it backward and upward, as if you were urging it upon the promontory of the sacrum, for if you press it directly upwards, you will bring it to bear on the symphysis pubis. Then, after the parts have been replaced, a pessary is introduced, in order to prevent a

second descent, and, perhaps, the most convenient form of the pessary, in these cases, is the globular, or oviform; it gives to the descending parts a very considerable bearing, by means of its broad surface.

Pain and Fever following the reduction.

After the uterus has been replaced, you will find sometimes, that a great deal of pain and fever are produced, so that you begin to be alarmed lest abdominal inflammation should ensue. Now, if these symptoms be considerable, you had better take away the pessary, and let the parts come down again. Bleeding from the arm, leeches to the abdomen, fomentations, poultices, relaxation of the bowels, in fact, all the ordinary remedies, appear to be indicated. If symptoms are slight, and the pulse do not rise above one hundred, or one hundred and five in the minute, I should then feel inclined to suffer the pessary to remain, taking care to empty the bladder, and to keep it empty, so that more room might be left for the uterus; at the same time using fomentations to the abdomen, applying leeches, and, perhaps, taking away a little blood from the arm.

Reapplication of the Pessary.

If the symptoms arising from the pessary have been so violent that it should be deemed necessary to take it away, and suffer the parts to come down again, I should not, therefore, totally abandon my attempts; but in a few weeks afterwards, perhaps, I should resort to the pessary again, leave it in for two or three hours, or till the same symptoms began to appear, then again removing, and introducing afresh, after they had subsided; and thus applying the pessary longer and longer every time, I should hope to habituate the parts to its presence, so as in that manner to effect a permanent replacement.

Reduction of the Uterus impracticable.

Although the prolapsed womb may in general be easily returned, you will sometimes find that the reduction is impracticable. Now, if this be the case, you had better employ some defence, or shield, in order to cover the tumour, and to prevent it from suffering injury from a blow, fall, or other violence. Moreover, the woman ought to have a well-adjusted suspensory bandage, for the purpose of supporting and preventing enlargement of the swelling, because if it is left for years without a suspensory support, it may become increasingly larger, till at length the patient can hardly sustain the inconvenience.

Principal impediment to the replacement.

The principal impediment to the replacement of the uterus, in these cases, arises from the inflammation which may be occasioned by the attempt at reduction, when they have been lying forth for months, or years, and where, as in cases of large and inveterate hernia, the parts above have got into a state to resist them. Sometimes, too, as Dr. Clarke has acutely observed, when inflammations have been going on in the different parts, internal adhesions have taken place, forming bands, and entangling a portion of intestines, so as to obstruct and give rise to the symptoms of incarcerated hernia.

Fever, Pain, Sloughing, etc. attendant on irreducible cases.

In most cases, where reduction is impracticable from want of room, and where the parts have been lying out, under sight, for years, they are sometimes affected with a great deal of inflammation throughout, with fever, and with deep-seated pain. It is asserted, that sloughs have taken place, and that women have recovered after losing the uterus; nor have I much difficulty in believing this, though such cases are in a manner unique. Were I to meet with an inflammation of this kind, I should treat it the same as an inflammation of any other viscus. I should bleed largely from the arm, give digitalis, foment the parts, and, perhaps, apply leeches, which might very conveniently be done from the womb lying beyond the external organs. Topical cold might be of service. By these and the ordinary antiphlogistic means, inflammation might be got under; and then, if I found the womb could be replaced, without giving a great deal of pain, as if adhesions were torn through by the attempt, I should endeavour to replace the parts.

Again, you will often, in these cases, meet with excoriation of the tumour, arising, I apprehend, from the irritation of the urine. The woman drinking freely of watery and bland fluids, by diluting the urine, might probably materially palliate this inconvenience; but a more effectual relief will be derived from the use of the catheter, or by passing the fluid while seated in a warm bath. The patient may learn to pass the catheter for herself.

By the application of some stimulant and astringent remedies, such as are used in cutaneous diseases, perfect cures may I believe, in general, be easily obtained.

SECTION IX.

PROLAPSUS OF THE UTERUS.

A more frequent disease than procidentia uteri, and therefore still more important to be known, is, that in which the womb comes down to the external parts, but not beyond them, called *prolapsus uteri.*

Symptoms.

A woman labouring under prolapsus of the uterus will tell you, that she feels as if her interior were descending; that she suffers a great deal of pain in the back, above the sacrum, and in the hips and the thighs. Sometimes she will complain of irritation of the bladder, rendering the evacuation of the urine necessary ten or twenty times in the course of the day, and occasionally from irritation of the rectum, which sometimes is present, she imagines she is suffering under piles. At night the symptoms are worse, because the womb comes down in the evening, the patient having been about during the day; indeed, in the morning the water passes much more easily than in the evening. On the whole, I should say, that there are few diseases which are better characterised than prolapsus uteri, and by these characteristics the great majority of the cases may be readily ascertained: the aching of the back, the irritation of the bladder, the bearing down, the relief of the symptoms by the horizontal posture, and the aggravation of the symptoms by being long in the erect posture.

Examination sometimes necessary.

A prolapsus of the uterus may generally be made out by attention to the above indications, but in some instances, the diagnosis is not so readily attained. Should the case be doubtful, you must institute an examination, and if you are in the habit of examining the parts, the moment you touch them the disease becomes known. These examinations, too, are better made in the evening than in the morning, for in the morning the womb is almost in its place, whereas, in the evening, it is considerably descended, so that the displacement is easily recognised. To this character may be added, first, the laxity of the vagina, which, in its upper half, is much more capacious, so that, perhaps you might put a pullet's egg into it there, though the lower part of it may be tenser; secondly, a bearing on the rectum, producing irritation; and, thirdly, if you introduce a catheter into the bladder, you will find the passage more or less distorted, the instrument moving about, and, perhaps, turning round completely, by being thrown out of the ordinary line.

Treatment.

The best method of treating this disease, and the most effectual, is by means of a pessary, and this is a form of it which a well adjusted pessary will effectually relieve. There are persons who, for ten, fifteen, or twenty years together have worn a pessary. A ring or a globe, may be employed; for married women, the ring pessary is, on the whole, the best, and the ball pessary for the unmarried; but you will find it necessary to make your observations upon the feelings of the patient, for some will find themselves easier with the ball, and others with the ring. Before, however, you resort to this mode of treatment, you may try what can be done by confining your patient in the horizontal posture, either on a sofa or on a bed, and by directing her to abstain from all urging, when there is any action of the bladder or rectum, particularly the bladder, the irritation of which may be considerable, occasioning the patient to pass her water ten or twelve times a day. Astringents should be used, by means of a long-necked syringe, or an elastic bottle. Sulphate of zinc, or alum, may be thrown into the vagina, the strength of the solution being increased daily; you may begin with a dram to a pint of water, and then two to a pint, then three, four, five, and so on, till you get a saturated solution, if necessary.

SECTION X.

RELAXATION OF THE UTERUS.

Of the descents of the uterus, the most common, perhaps the most obscure and the most troublesome, is that variety in which the uterus descends but a little way, say an inch or two into the pelvis, technically called *relaxation of the uterus.*

Symptoms.

In these cases you often find your patient very irritable and nervous; there is a great deal of dyspepsia, acidity of the stomach, inflation, nausea, vomitings, and very frequently, too, the bowels are more or less disturbed, and more especially inflations of the bowels are apt to occur; so that if the woman is married, she thinks herself with child, and ascribes it to pregnancy. With these symptoms of general relaxation of the system, there may be disorder of the chylopoietic viscera, continual uneasiness and pain in the back, ascribed to the upper part of the sacrum, a sensation of bearing down, as if the interior part of the body would pass away, indicated, principally by irritation of the rectum; so also there is considerable irritation of

the bladder, the urine requiring to be evacuated ten or twelve times a day, and often more or less of a mucous discharge from the vagina, as if the patient were labouring under *leucorrhœa.*

Indications furnished by examination.

By ordinary attention to the above symptoms, the case can hardly fail being manifest, but if there is a doubt, that doubt is to be set at rest by making a careful examination; if the disease exist, you will observe the upper part of the vagina to be very relaxed, and the womb to protrude; and were you to introduce the catheter, you would find there is a tendency to an obstruction and a distortion of the urethra. As in cases of procidentia uteri, the best time for making the examination is in the evening, rather than in the morning, because if you are inexperienced in making these investigations, you might be deceived, were you to institute a morning examination.

Treatment.

Where there is a relaxation in a slight degree, one of the first steps to be taken, is to improve the general health of the patient; for this purpose you may use blue pill in small quantities, laxatives, tonic remedies, more especially the lighter bitters, and nourishing diet; but the most effectual mode of relieving her will be, if she is an inhabitant of a large city, by sending her into the country, or to the sea side as soon as possible, and after she gets there, her health will soon improve, and she will get rid of the disease for a time, at least. In these cases, it is a great advantage to lie in the horizontal posture as much as may be, without injuring the health, for all confinement, instead of improving the health, makes it worse. Further, as relaxations, where they are encouraged, are apt to terminate in procidentia, or prolapsus, you should direct your patient to abstain from all forcing, for the more the forcing, the more the parts descend, and the more likely she is to have, in the course of a few months, or a few years, a prolapsus.

Astringent remedies deserve a full trial, for there is no doubt of their proving beneficial. Of the astringent fluids, those before enumerated are some of the best, alum and the sulphate of zinc being the principal; always increasing the strength and frequency, according to the effect produced, otherwise you would do no service. It might be worth consideration whether powdered astringents might not be of use, if they were introduced with a little care, which, perhaps, might be done by the patient herself; and I think the powdered galls, for example, would furnish a very powerful application. They would have the advantage of lying in the vagina more permanently than a wash, which runs off as soon as it is infused.[1]

[1] In a case that occurred at Guy's Hospital, I made trial of the *common*

When a patient labours under a slight descent, the bladder is frequently obstructed, so as to render it necessary to introduce a catheter; but sometimes the use of this instrument may be superseded, and especially when you are at a distance, it is very desirable that it should be superseded, if possible, by the woman lying in the horizontal position, with her hips a little raised above the level of the shoulders, half an hour, or more, and then trying to pass the water; or sometimes by getting a bearing with the finger upon the mouth of the uterus, the patient herself, if she is intelligent, may replace the uterus, and in this manner obtain a passage for the urine.

If the relaxation, then, is of the slighter degree, it should be your principal object to mend the general health, to keep the patient in a horizontal posture, to restrain all unnecessary efforts and forcings, and to use astringents actively. And as to the obstruction of the bladder, it may be relieved either by the use of the catheter, or by taking means to bring the uterus into its proper place. A pessary should be your last resort.

SECTION XI.

PROLAPSUS OF THE WOMB COMBINED WITH PREGNANCY.

Our remarks on prolapsus have hitherto considered the disease as unconnected with gestation or delivery, but we must not omit to mention, that the uterus may descend both after delivery, and during pregnancy.

Prolapsus after delivery.

When a prolapsus takes place after delivery, and the womb lies out between the limbs, it forms a large tumour as big as the fœtal head; and it is very easily known, by your finding the os uteri so large, that you could pass your finger into it, the child's head having just passed through it.[1]

resin, in a very fine powder; this was not a case of prolapsus, but of procidentia, and it was replaced after the application of the powder. Now it is certain that the womb did not come down again so easily, after the application of the resin, as it had done before; but whether this arose from any effect that had been produced by the astringent on the part, or whether it arose from the mere roughening of the surface, was not clear. It was applied in this way for a few days; it occasioned no inconvenience whatever, and the girl leaving the hospital, no further opportunity was had of observing its effects.—*Dr. Blundell.*

[1] I have been told of two cases, in which the practitioners were so ignorant, that they did not recognise the disease; in one case the womb was cut away

The manner of managing these cases is very simple; the bladder should be emptied, the womb should be returned to its place, and the woman may be kept in the horizontal position, with the hip a little elevated, for six or eight weeks together: and if she will submit to this, there is a fair hope of her becoming permanently cured of the disease, at least in some cases.

Prolapsus not usual in the latter months.

During the latter months, the uterus does not usually come down, for it is so large, that it gets a bearing on the brim of the pelvis, and there is not room for it to descend; yet sometimes it does happen, where there is a very large pelvis, and the uterus not very bulky, the womb descends so far that the os uteri may be seen externally. If the woman is at the end of pregnancy, or if the womb was to descend during delivery, provided the os uteri came into sight through the external parts, I suppose it would be your duty to dilate the os uteri with the fingers, and in this way accelerate the birth of the child as much as possible; but if it was down a little way merely, I should not meddle with it; but leave the woman to her own resources. But if, in the latter months, the womb were lying externally, and between the limbs,[1] and it could not be put back, I should recommend the bringing on of delivery, by puncturing the membranes; and then, when parturition came on, I should, as before, assist in dilating the os uteri. In Harvey's case it was proposed to extirpate the uterus, but I certainly prefer the induction of parturition before extirpation.

Prolapsus in the earlier months.

It is by no means infrequent for the womb to descend in the first three or four months; and a case of this kind is very readily made out by the ordinary symptoms; there is the aching in the back, there is a bearing upon the rectum, a bearing on the bladder, with an obstruction of the urine, and when you examine it, the case is observable at once.

If the uterus is coming down in the earlier months, then the practice is very simple; when the symptoms are very troublesome, the patient should lie in the horizontal posture; she may lose blood from the arm if she is in much pain, and, in the course of a few weeks the womb becomes so large as to get its bearing upon the bones of the pelvis, and the disease is cured.[2]

with a penknife, and the woman died from collapse; in the other case, there was a great deal of handling of the uterus, and this appeared to occasion death.—*Dr. Blundell.*

[1] A case of this kind occurred to the illustrious Harvey.

[2] A woman was sent up from Gravesend to Guy's hospital; I examined her, and found the case to be prolapsus uteri; she was obliged to lie in the horizontal posture; she was in the third month of pregnancy; and as she

It rarely happens, neither have I ever seen such a case, that in prolapsus of the earlier months, the womb remains in the pelvis, blocking up the cavity, making pressure on all the parts, and giving rise to symptoms of severe obstruction.

In these descents you must relieve the patient by first introducing the catheter, and when you have emptied the bladder, and not till then, you may venture to urge the womb above the brim. This, I say, you should not do, till the bladder has been previously evacuated; for if it was overloaded, say with six or seven pints of urine, and you were to urge the uterus upwards in the first place, you might have a great deal of difficulty in pressing it backwards, and if you succeeded, you might rupture the bladder.

SECTION XII.

ON THE RADICAL CURE OF PROLAPSUS UTERI.

It has been asked whether a radical cure cannot be accomplished? and if it could, it certainly would be very desirable; but, in the present state of our knowledge, we are not possessed of sufficient information to enable us to effect that cure.

Extirpation of the Womb.

It has been proposed by the French operators to cut into the vagina, and take the womb away altogether, neither do I believe extirpation of the womb would always be either impossible, or fatal, yet it is too dangerous an operation to be thought of for the purpose of ridding the patient of this disease; besides which, if the prolapsed uterus were troublesome, and were extirpated in consequence, the probability is, that other parts would descend, that the bladder or intestines would come down, therefore the operation I can by no means recommend.

Constriction and Cohesion of the Vagina

In the second place it has been proposed again, to bring on inflammation of the vagina, for the purpose of giving rise to constriction and cohesion. Now, every obstetrician must be aware, that the vagina is sometimes shut up in the middle by constriction, to that extent which renders it impossible to introduce even a catheter. Now and then, even, it does happen that this disease not only

lay on the bed in the hospital, the uterus arose, got its bearing on the bones, and, at the end of a week, the disease was effectually cured.—*Dr. Blundell.*

attacks married women, but the unmarried, and about the time the catamenia cease to flow; and in such a case, the patient might sometimes obtain a radical cure commodiously enough, if this state of the vagina were induced; but we have it not in our power to occasion it at pleasure. It has been proposed to bring on inflammation by injections, and to have the parts replaced before adhesion or constriction take place; Dr. Hamilton had under care some two or three cases in which he made this trial, but without success. In St. Thomas's hospital, in a case of procidentia, I once introduced a pessary with large apertures. In consequence of there being a good deal of forcing after the instrument had been passed up, parts of the vagina were driven through the large holes; a great deal of irritation was thereby produced, and the protruding parts sloughed away; of course, I removed the pessary the moment I observed this, and the woman completely recovered. But mark, notwithstanding there had been so much inflammation of the vagina, and though the patient had been confined to the horizontal posture afterwards, to give her a chance of a radical cure, no such cure was in that way produced. There is, however, a case recorded by Burns, in which a silver pessary being used, a great deal of inflammation was occasioned, and which brought about a radical cure.

Adherence to the horizontal posture.

A third mode, by which a radical cure may be attempted, is, by confining the patient after delivery to the horizontal posture strictly, for six or eight weeks; I suppose in the majority of cases this will fail, but in some few cases it seems to succeed splendidly.[1]

Conclusion.

As regards the radical cure of these descents, to bring my observations to a point, I should say that in women past the age of the catamenia, it is very desirable that we should try to cure the disease radically; and I think, though in our present state of knowledge we do not seem to be in possession of the means of accomplishing it, yet that the second mode of the cure is well worth the consideration of a man of talent and industry, for I am not without hope that it might be obtained.

[1] Mr. Redfern had the care of a lady, who, for four years together, had laboured under a descent of the uterus beyond the external parts, she became pregnant, she was confined to the horizontal posture after her delivery, and for some time afterwards, a year or more, the time he afterwards knew her, she had no further appearance of the disease.—*Dr. Blundell.*

SECTION XIII.

ON PESSARIES.

Pessaries are certain instruments which are introduced into the vagina, with a view of supporting the uterus, the bladder, the vagina itself, and the parts adjacent; and of these instruments there are various forms and contrivances. Of the different kinds of pessaries which have been commended to use, the principal consist of the ring pessary, the ball, the sponge, and the pessary which is mounted upon a stem.

Ring Pessary.

The ring pessary consists of a circular plane of various material—silver, ivory, caoutchouc, or box-wood, for example; thick at the edges, thinner toward the centre, and containing a central aperture, being large enough to admit the point of the fore-finger; not larger, lest the uterus should force itself through the opening, and, in that way, become strangulated. Of these pessaries the obstetrician is to be provided with a succession, consisting of different sizes, rising above each other in diameter. When he is about to introduce the instrument, he first makes a careful examination of the vagina, to which there can be no objection, as it is necessary for him to interfere manually with the part, in order to introduce the instrument. Having effected this, he places by the bed-side some three or four of the pessaries, which appear, on comparison, to be best fitted to the vagina; and of these he selects one, lubricates it abundantly, places the woman either in the recumbent posture, or else, which is perhaps, on the whole, fully as convenient, and more agreeable it may be to female delicacy, he advises her to take position upon the left side, in the usual obstetric posture. These preliminaries arranged, he lays hold of the pessary, and planting it in the pudendal entrance, with a sort of rotatory motion, he rolls it upwards and backwards along the surface of the sacrum towards the promontory of this bone, with as little force and compression as may be; the plane of the instrument, at this time, lying parallel with the sides of the pelvis; and then, when he has reached the upper part of the vagina, he places the plane in apposition with the mouth of the uterus, which then rests upon it as on a shelf, and thus obtains an effectual support. These instruments, however, are very apt to turn edge-ways. If the pessary be too large, it can easily be removed at the pleasure of the patient, and a small pessary is easily replaced, when necessary, by one of larger diameter. When you pass up the pessary, you ought to tell your patient that the first size will not, perhaps, prove of fit measure for the vagina, and therefore she must not be disappointed, should a change become necessary. To remove the pessary is exceedingly easy; you pass the

finger into the vagina, lay it in the central aperture of the pessary, and then roll it downward, careful that you do not injure the vaginal orifice. The great nicety of introduction consists in carrying it upwards and backwards, and not against the point of the pubic arch. I have said you are to carry it upwards and backwards towards the promontory of the sacrum; because, if you carry it directly upwards, you will occasion a great deal of pain, and, at the same time, the instrument cannot be introduced, as it must fall into collision with the symphysis pubis. In all women, the ring pessary may be employed; it is an excellent form of pessary for general use, but for married women it is more especially accommodated, as it does not materially obstruct the vagina.

Ball Pessary.

The ball pessary may be made of silver, of ivory, of box-wood, of various other materials—but box-wood is, in general, preferred. By the turner it is hollowed, in order to make it lighter, and, at the two poles, there are apertures of small size, perhaps the more numerous the better, to allow of the discharge of the catamenia, provided the period of menstruation be not yet passed. With this instrument should be connected four ties of strong red tape, which, by giving a bearing, may facilitate its abstraction from the vagina. When using the ball, you ought to be provided with a succession of three or four different sizes; then placing the woman as before, either recumbent or laterally, the left side being the more decorous posture, and the instrument, as before, being placed in the vaginal opening, roll it upwards and backwards towards the promontory of the sacrum. Some little pain may be expected on passing the orifice of the vagina, but the admission of the instrument becomes more easy as it advances along the canal, for, as I formerly observed to you, the vagina, in the upper part, is often far more capacious than below. If you wish to remove this instrument, this may be done by laying hold of the tape and drawing down; but, should the tape give way under your efforts, what are you then to do? Why, in this conjuncture, you may have recourse to an instrument, the pessary-forceps, (and which I have used in the hospital,) to be managed precisely in the same manner as you would manage the obstetric forceps—the blades are separable, like those of the obstetric forceps; they are applied to the ball, and are afterwards brought into operation, in the customary way, by which method the ball may be more easily abstracted than by the action of the tape. These pessaries are admirably adapted to prevent the descent of the parts, because the parts get a broad bearing upon the instrument, which is of easy introduction. By the surgeons among the black population of some of our plantations, these instruments are much employed.[1]

[1] Thompson, of Little Windmill Street, sells a pessary, in principle like the ball, the contrivance, I believe, of Mr. Pointer, and which may be called

Sponge Pessary.

A piece of sponge introduced into the vagina, may be used as a pessary, but unless judiciously managed, it operates but badly, because, if it is not well fitted in size, it tends to dilate like a sponge tent, so as to increase the original cause of the disease; but if the capacity of the vagina is well examined, and the sponge is cut down, and formed into the oviform shape, it may be accommodated to the cavity, and may be used in those cases, more especially, where, from the irritability of the parts, the pessaries before commended cannot be employed. Dr. Haighton was partial to this variety of pessary, condemned by some, and thought that he found advantage from it. He recommended tapes to facilitate its removal, and was of opinion that some advantage might be derived from imbuing the instrument daily, with some astringent lotion, alum, for instance, the strength of which should be gradually increased. With three or four of these sponge pessaries the patient ought to be provided, and every day the one that has been in use should be removed, to undergo a thorough ablution, to be introduced on some future day. If the vagina be prone to contraction, the pessary may be cut smaller and smaller, with scissors. Dr. Haighton thought, by using the pessary in this way, we might not merely support the parts, as by the ordinary instrument, but that we might reasonably hope, now and then, to produce some constriction of the vagina, so as to obtain, perhaps, a radical cure of the disease.

Stem Pessaries.

In some cases it is necessary that the pessary should be mounted on a stem, of which there are different kinds; for a ball, a ring, or any form you please, may be mounted in this manner. Of the use of this pessary, I have seen very little, having advised it only in one or two instances, and those did not remain under my own eye, so that I could not fully observe the result. In the general, I know that stem pessaries are not needed, and unless needed they should not be employed. The cases best adapted for their use, are those in which the perineum is torn open, or in which the vagina is relaxed extraordinarily, insomuch, that no ordinary pessary will remain. Commonly, by the sciatic ligaments alone, a sufficient support is given to the pessary, to the ball more especially, so as to

a *balloon pessary*. It is longer in one diameter than in the other. It consists in a firm texture, of a sort of canvass, covered over with common Indian rubber. This instrument is easily introduced, and easily removed. If the removal be obstructed, all that is necessary is to make a small aperture in the instrument, when it will collapse and come away with ease. Thompson recommends that we should employ the glare of eggs for its lubrication, in preference to oil, which has a tendency to dissolve the caoutchouc.—*Dr. Blundell.*

render it unnecessary to employ the instrument with a stem; cases, however, may occur, with laceration of the perineum especially, in which a stem pessary may be usefully employed. Of the different kinds of stem pessaries, perhaps one of the best is that recommended by Dr. Clarke, and which I would advise you to essay. In using this pessary, the patient wears a bandage round the hips, and there is a ball for the vagina: down from the bandage in front there is a stem, or wand, of metal, which passes between the limbs and to the bandage behind; so that this stem becomes incurvated, and when properly adjusted, passing between the limbs, has a bearing in the line of the pudendal opening, and lies on the ball, describing a line along its inferior hemisphere, from pubes to coccyx, so as to yield it an effectual support; but lest the pessary should slide out on the one side or the other, displacing the wire laterally, there is a sort of staple fixed in the instrument, and through this staple it is that the wire passes. Now a stem pessary of this kind I have tried, and it answered very well, one inconvenience excepted, which was, that in the case referred to, much distress was occasioned in consequence of the softer parts being apt to get between the iron stem or wand, and the staple, causing a painful compression, and the rather, because those parts are very sensible.

Another stem pessary, tried on a patient in Guy's Hospital, labouring under procidentia, was found to answer very well. It consists of a ball elevated upon a stem of pewter, and the ball may be passed up to the os uteri, the stem being incurvated, and brought up to the bandage before mentioned, and fixed there at a proper elevation by means of screw and socket. This stem may be adjusted in two ways, being accommodated to the bandage, either in front, over the symphysis, or between the nates behind. The great advantage of this sort of pessary is, that it may be adjusted to a great nicety, to the liking of the patient; if she wishes to wear it high, she can do so; if she wishes to lower it, this may be done; and if she is uneasy in any way, she can move it from one side to the other, or bring it from her person altogether; all this obsequiousness depends, mainly, on the flexibility of the stem, which, however, is so stiff, that while it obeys your pressure, it nevertheless retains the curve you give it. From the trial given to this instrument, I have reason to believe, that, on the whole, it is by no means a bad one.

SECTION XIV.

GENERAL REMARKS ON THE USE OF PESSARIES.

Whatever pessaries you use, there are different modes in which they may be employed. A woman may wear them for years

together, without removal during the whole term; for, finding the part well supported by it, she becomes habituated to the instrument, and learns at length to bear it with contentment. Or, again, when this is preferred, the pessary may be employed in the day time; if a woman is tolerably well, and more particularly if she is a married woman, it may be better to wear it in the day time only, regularly introducing it in the morning, and regularly removing it in the evening. If your patients are wanting in intelligence, the less you rely upon their skill the better; and I should, therefore, certainly prefer the use of a pessary, to be left for months together. Where pessaries are left in this manner, however, they ought to be watched; and if there are pains and discharges, and other alarming symptoms, which may excite a suspicion that some other disease is forming, the instrument must be abstracted, and the state of the parts ought to be investigated with care. In such cases, sometimes the vagina is become inflamed and irritated, and it seems not injudicious to confine the patient afterwards with strictness for a few weeks, to the horizontal posture, as there is a reasonable hope that, under all this action, the vagina may become constricted, so that a radical cure may be obtained.

Size of the Pessary.

The size of the pessary must vary with the different capacity of the vagina; for some women may require a larger and some a smaller pessary. When a ball pessary is to be used, the size required may be ascertained by means of hard eggs, or lemons, an instrument being afterwards chosen accordingly. The egg itself, designed by nature for these parts, is not a bad pessary. The larger pessaries are proper when intended to be of permanent use; the smaller, when they are to be removed, like a part of the dress; and the smallest pessary which will support the parts is the best.

Bad consequences sometimes following the use of Pessaries.

As before hinted, in the general, pessaries, if well adapted, may remain for years without producing any ill effects; bad consequences, however, I have sometimes seen, and the following are some of the more important; obstruction of the bladder, obstruction of the rectum, bruises, inflammations, ulceration, thickenings; insomuch, that the very walking of the patient becomes painful to her; by ulceration, the rectum has been laid open into the vagina.[1] The ball pessary, when too large, may occasion much tumescence and pruri-

[1] I once saw a case, in which a very large pessary had been introduced, the rectum opening in consequence; the woman died, and thus became relieved from her misery.—*Dr. Blundell.*

Mr. Blair also mentions a case at the Lock Hospital, in which a square piece of wood had been introduced into the vagina as a pessary, and which ulcerated through into the rectum.—*Med. and Phys. Journ.* x. p. 491.

tus of the parts below, just within the passage, the cause of which may not be understood; the removal of the instrument relieves the symptoms at once.

The patient's objection to Pessaries.

Pessaries are very excellent remedies where they are well adjusted to the parts; but Denman has remarked, with good reason, that many women lose the advantage of the instrument because of their impatience, or because, to use a female expression, they become fidgety. If you introduce an instrument that does not exactly fit, they will not allow it to remain—they will not allow another to be tried—they are displeased, and petulant, and child-like—and as we can hardly forbear petting them, what with the folly of the patient and compliance of the practitioner, my lady pouts, and loses her advantage. Now, at the time when you propose the instrument, you had better tell your patient at once, "This instrument is really an excellent contrivance, but I know it will be of no use to you." "Of no *use* to me?—Of no *use* to me?—Why?" "Why? why because you will not allow me to try it sufficiently; there will be a little trouble attending it, and I know you will become fidgety, fall into a pet, and prevent a fair essay." This brightens the lady's eye a little, gives a glow to the complexion, raises a small emotion of indignation, and puts her on her mettle, to use a phrase of the *manége;* her heart is excellent at bottom, but she does love a little perverseness, and is determined that you shall prove a pseudo-prophet; and thus, thanks to your management, the instrument gets fairly tried.

Conclusion.

Ball pessaries are perhaps, the best adapted to the unmarried; ring pessaries to the married; the sponge to those who are very irritable; the stem to those cases in which no other form of pessary will remain; larger pessaries are fit for permanent use; pessaries used in the day only should be smaller; the smaller the pessary the better, provided the parts are duly supported; a compress and bandage will, in many slighter cases, supersede the pessary; the same contrivance may be a useful help in supporting a pessary. Pessaries of a size well adjusted to the vagina, may occasion pain during the first few hours, and ought not, on that account, to be too hastily removed.[1]

[1] Whatever form is used, it is to be so large as not to fall out of the vagina, when the woman walks or moves, or evacuates the bladder or bowels, and ought to be frequently removed, in order to be cleansed; its size is to be gradually diminished, and astringents are to be used; so that, after some time, it may be altogether discontinued.—*Dr. Ryan.*

SECTION XV.

OF THE BLADDER.

The bladder is a musculo-membranous receptacle, which, when contracted, lies concealed behind the symphysis pubis; and when dilated, advances forward, and becomes large in proportion to the accumulation of urine. It is of three tunics that the bladder is composed; at least according to the British obstetrician; and the distinction is sufficiently minute for all practical purposes; internally, it is invested by its mucous membrane; externally, it is partially covered with peritoneum, and intermediately you have numerous muscular fibres ranging in all directions, and of course, when they contract, the dimensions of the bladder are, in every direction, considerably decreased. The peritoneum furnishes a very partial coat for the bladder, covering merely the back part of the body and fundus, while the neck all around, and the whole of the front, lie bare. Where the bladder is covered by peritoneum it is smooth; where by the cellular web, it is rough. At the lower part of the bladder in front, the urethra enters, being an inch or an inch and a half long, and which, throughout its course, lies at the back part of the symphysis pubis. Of ureters, there are generally two, opening into the back part of the bladder, at the sides inferiorly. The two orifices of the ureters, and the orifice of the urethra internally, form the points of a small triangle. When the bladder is dilated, it fills up the abdomen much in the same way that the pregnant womb would do, perhaps occupying one third or one half of the front and middle part of the cavity; but when contracted it lies behind the symphysis pubis, and at all times the back part of the neck of the bladder is lying on the front and superior part of the vagina. Hence, if an examination of the bladder is to be made, you may pass the finger up to the anterior and upper portion of the vagina, and thus ascertain its condition almost as well as if the finger were within it; a fact of which all are not aware, but one of considerable importance in obstetric practice.

SECTION XVI.

RETENTION OF URINE.

In women, retention of urine may be of two kinds, partial and complete, and very important the distinctions are.[1]

[1] A total suppression is called *ischuria;* a partial suppression *dysuria.* When there are frequent, painful or uneasy urgings to discharge the urine,

Complete retention.

We sometimes meet with patients labouring under a complete retention of the urine, so that not a drop comes away, the abdomen, in the course of two or three days, looking like a case of ascites, particularly if the woman have borne any children. With this condition of the bladder, there may be slight delirium, shivers, heat, and a pulse of a hundred and twenty in a minute; the patient, perhaps, on account of her delirium, giving but an obscure history of her case; forcings and much pain of the abdomen and of the bladder also occur. An obstetrician of experience meeting with a case of this sort, will soon learn its nature; and even the inexperienced, finding that no water has passed for two or three days together, can scarcely mistake the case for dropsy of the peritoneum.

Partial retention.

More generally, however, we meet with cases of partial retention, and of a very deceptive kind; the patient may tell you that she cannot retain her urine, because it is frequently gushing from her, or dripping away continually, so that your first impression is, that she labours under incontinence, for the water never passes in a full stream, or in a large quantity at once. If at this time you lay the hand on the abdomen, you may find that it is large, as if it were ascitic;[1] that it fluctuates very distinctly; and there may be tenderness and pain accompanied by forcings and rigors, and fever, all which are characteristic of the disease, and help to distinguish it from ordinary peritoneal dropsy. Occasionally there may be swell-

and it passes off only by drops, or in very small quantities, it is called *strangury.* When a feeling of heat or pain attends a difficult evacuation, it is denominated *ardor urinæ.*

[1] There is a case related by Sir Richard Croft, in which, under partial retention, the urine had been gradually accumulating for four or five weeks together, the abdomen at length becoming greatly distended; for in these cases, the water issuing more slowly by the urethra than it enters by the ureters, there is a continual, but gradual and slow, increase of the quantity. In the case referred to, the urine accumulated to the measure of nearly two gallons.—*Dr. Blundell.*

Retention has occasionally continued for a considerable period without mischief. Marcellus Donatus gives a case of six months standing, and Paullini another of habitual retention. But in these an observant practitioner will perceive the two following accompaniments: first a constitutional or superinduced hebitude of the muscular coat of the bladder so as to indispose it to inflammation; and secondly, a resorption of the urinary fluid, and its evacuation by some vicarious channel.—*Dr. Good's Study of Medicine.*

The quantity of urine retained, and afterwards discharged or found in the bladder on dissection, has often been very considerable. It has occasionally amounted to eight or nine pints; and there is a case given by M. Vildé in the *Journal de Medicine,* in which it equalled sixteen pints.—*Ibid.*

ing of the legs, particularly if the woman be pregnant, so that if you are at all in the dark as to the nature of the disease, you are likely to retain a wrong notion of it. You begin with the suspicion that your patient was incapable of retaining her urine, and now fall into the opinion that she labours under ascites. Again, it is not with incontinence, or peritoneal ascites alone, that this disease may be confounded, for the abdomen being tender and painful in a high degree, with rigor and fever, and the patient continually writhing and complaining, you may suspect that she labours under abdominal inflammation, joined with suppuration or spasms.

Diagnostic indications.

Since this disease simulates at once the symptoms of inflammation, dropsy, and urinary incontinence, you will perhaps ask how you are to know at the beside the nature of an affection so fallacious. My answer is, by the following diagnostics:—First, you ought to suspect that there is a retention of the urine, provided you discover a large intumescence of the abdomen, fluctuant, and accompanied with much pain, tenderness, and forcings: secondly, you may always reasonably suspect that there is a considerable quantity of accumulated urine, provided the water do not issue at all, or provided it is issuing in a very small stream, or by drops involuntarily, or in occasional gushes, and all this in conjunction with a large, tender, painful, and fluctuating abdomen, in which cases, even if you are told that the patient can pass the water, let it be submitted to inspection, and take care that it is the secretion of the patient that is produced to you, as the nurses are not always to be relied upon in this point: thirdly, if you find that the urine issues in a copious stream, there is no danger; but if there is no discharge at all, or only a very small discharge, then there may be a retention which may rupture the bladder, unless the patient is relieved: lastly, when you suspect that there is a retention of the urine, introduce the catheter, and this instrument, properly managed, will prove an excellent diagnostic. Remember then all these diagnostic symptoms, for through carelessness, or from a want of sagacity, fatal consequences may result.[1]

Cautions in using the Catheter.

In passing this instrument, do not slide it into the womb, and

[1] Dysuria is seldom attended with much danger, unless, by neglect, it should terminate in a total obstruction. Ischuria may always be regarded as a dangerous complaint, when it continues for any length of time, from the great distention and often consequent inflammation which ensue. In those cases where neither a bougie nor a catheter can be introduced, the event, in all probability, will be fatal, as few patients will submit to the only other means of drawing off the urine before a considerable degree of inflammation and tendency to gangrene have taken place.—*Dr. Hooper.*

draw off the liquor amnii in mistake for the urine;—be careful, too, not to urge it upward too forcibly, so as to force it through the back of the urethra into the vagina, in place of the bladder;—in passing it gently, be careful, however, that it is passed sufficiently high, in dubious cases especially, for sometimes you may just reach to the entrance of the bladder, and there stop short;—see that the catheter is clean, its apertures, eight or ten in number, all open, its calibre clear, and the stilet withdrawn; recollect also, that from over-distention, the bladder is sometimes paralytic, and therefore, even though the catheter be fairly introduced into its cavity, the urine may not readily flow away;—and again, sometimes there is a deep mucous follicle by the side of the urethra, perhaps an inch or more in depth, and into this the catheter may pass, you mistaking it for the urethra; and, as no urine flows, you may then persuade yourself that there is no accumulation of it; inflammation of the bladder, if not rupture, being the consequence of the error.

SECTION XVII.

CAUSES OF RETENTION OF THE URINE.

Retention of the urine may arise from a variety of causes, requiring a corresponding treatment, of which causes I shall mention the more important in women.

General constriction of the Urethra.

Retentions occur sometimes in consequence of a general constriction of the urethra. Two cases of this kind I have seen, in which the urethra was constricted from end to end; in one of these cases, the bladder lay open by an aperture into the vagina, so that the action of the urethra was superseded; and in the other, the bladder was healthy enough, yet the urethra was so contracted that I found it requisite to sound it with a probe, and every morning the patient used to be twenty or thirty minutes in passing the water, if the ordinary quantity were accumulated. Dilatation is the remedy for this defect; nor will it be difficult if there be no extensive organic disease.

Spasmodic Stricture.

Women are sometimes affected, or fancy themselves affected, with spasmodic stricture; for I do not believe all that is said by women reputed to labour under this disease, which sometimes may be attributed to a mixture of caprice and hysterics. There is no

doubt, however, that spasmodic stricture does sometimes take place, and it is more likely to occur in very irritable girls. A well marked case of this kind, I examined in St. Thomas's Hospital, for Dr. Williams. In cases of spasmodic stricture, for days together no urine passes without the catheter, and then it may flow readily enough; being afterwards again retained, and again evacuated *ex arbitrio.* In the general, and perhaps always in real spasmodic stricture, the catheter may be passed, the constriction giving way before the instrument, so that palliation is easy; but with a view to the radical cure of the disease, you may try what can be done with the *tinctura ferri muriatis*, the warm hip-bath, the cold hip-bath, large blisters at the lower part of the spine, and above the symphysis pubis, and perhaps I may add, the extract of belladonna.[1]

Laborious Parturition.

After a difficult labour it will sometimes happen that the urine is retained, the retention being produced by inflammations in the back part of the neck of the bladder, united with, more or less, swelling and spasm. Time, a period of two or three days for example, generally cures this affection. The cure may be accelerated by the application of from ten to twenty leeches above the symphysis pubis, by a large blister, by fomentations, purgings, and bleeding from the arm.

Retroversion of the Uterus.

Retentions of the urine are sometimes to be attributed to retroversions of the uterus, the womb by pressure closing the urethra completely or partially, and giving rise to both varieties of the disease. Of course the treatment consists in the replacement of the uterus, by emptying the bladder, and afterwards operating upon the womb by the hand; or by emptying the bladder, and then directing the patient to take posture on her knees and elbows; or this failing, by again emptying the bladder, and making with the hand more active attempts than before to replace the womb in a manner already explained.

Procidentia of the Uterus.

Retention of the urine in women, more or less complete, arises occasionally from prolapsus of the uterus, where it comes down beyond the external parts, producing *procidentia*, the bladder descending together with the womb; but where the uterus comes down but a little way, so as to constitute the *relaxation*, considered in a

[1] The buchu, or carbonate of soda, liquor potassæ, or cold application will often assist in the cure. The soda and potash decompose the urine, and prevent irritation.—Ed.

former section, some retention of the urine may still be produced. In cases of this kind, the most effectual means of relieving the patient is by replacing the uterus. A woman may be taught to replace he womb for herself, by making pressure upwards and backwards, so that the urethra may thus be replaced and rendered pervious, and the water may be found to flow. Of course, in cases of this kind, it is occasionally necessary to introduce the catheter, and this, too, if the patient have a tolerably intelligent mind, she may do for herself.

Prolapsus of the Bladder.

Prolapsus of the bladder sometimes occurs, and produces obstruction to the passage of the urine in the same manner as the descended uterus. The most effectual mode of relief in this variety of the disease is to replace the parts, and to support them by means of a pessary.[1] If the water cannot be liberated in this manner the catheter must be introduced.

Inertness of the Bladder.

In women you may, occasionally, meet with retentions of urine, arising from inertness of the bladder; in some cases, perhaps, the result of an injury done to the spine. A case which wore this aspect, I once examined in Guy's Hospital, where a severe blow had been received in the lumbar region, in consequence of a fall on the stairs. Three or four pints of urine had been accumulated in the bladder, and when the catheter was introduced, so as to remove all resistance, a flow, indeed, occurred, but it was feeble. I remember once seeing Sir Astley Cooper introduce a catheter, in a male, in whom there was a great abdominal distention, and when the catheter was introduced, to the surprise of the bystanders, the urine scarcely flowed at all, till, at length, the hand was laid on the abdomen, and when a gentle pressure was made there, the water issued readily enough. In these cases of paralysis of the bladder, the remedies to be most relied on, are principally, I believe, in the first place, the introduction of the catheter, with pressure over the region of the bladder if necessary;[2] secondly, the employment of very warm hip-baths; and, lastly, blisters either applied to the lower part of the abdomen in front, or to the back of the spine.

[1] When, in these cases, a pessary has been introduced, it is necessary to watch the patient, since the womb may still press down and cause the pessary itself to press on the urinary passage. The ball pessary should not be used here.—Ed.

[2] The sudden application of cold immediately over the region of the bladder will also sometimes prove effectual.—Ed.

Suppressed secretion.

You will occasionally be called to cases where the urine is said to be retained, and where there is, in truth, no retention, but really a suppressed secretion. My friend, Dr. Chapman, late of Demarara, tells me, that in the very last stage of the yellow fever, when the patient is beyond recovery, there is sometimes no secretion of the urine for hours. In Guy's Hospital, I was once called to see a poor creature, dying under a sloughing chancre, and who had not passed any water for some time. I was requested to introduce the catheter, and did so, too inconsiderately, before I had duly examined the abdomen, being unwilling to disturb the poor girl. When I made my attempt, I found I could not introduce the catheter to half the depth I had expected, and frustrated in my endeavours, I made my examination above the symphysis pubis, when the abdominal parietes being exceedingly attenuated, I could readily distinguish the point of the catheter lodging in the bladder just behind the symphysis pubis: operating as I was, upon a poor young girl, only not moribund, you may well suppose I proceeded with the utmost gentleness; indeed, in this case, had force been used, much injury of the bladder might have ensued.

Recapitulation.

The above, then, together with the modes of treatment, are some of the principal causes by which the retention of the urine may be produced: A permanent constriction, or spasmodic stricture, an injury done to the bladder by severe labour, retroversion of the uterus, prolapsus of the uterus, prolapsus of the bladder and vagina, a want of the muscular power in the vesical tunics, and a total failure of the secretion of the urine.[1]

[1] To these causes may be added inflammation of the urethra, occasioned either by venereal sores or by the use of acrid injections, inflammation of the bladder or kidneys, considerable enlargement of the hemorrhoidal veins, a lodgment of hardened fæces in the rectum, spasm at the neck of the bladder, exposure to cold, the absorption of cantharides applied externally or taken internally, excess in drinking either spirituous or vinous liquors, or particles of gravel sticking in the neck of the bladder, or lodging in the urethra, and thereby producing irritation.—Ed.

SECTION XVIII.

OF THE CATHETER AND ITS INTRODUCTION.

Under retentions of urine in women, it is necessary to have recourse to the catheter, and, for this purpose, different instruments have been contrived, of various form, size and material: of silver, pewter, flexible metal, and caoutchouc, but most frequently of silver.

Choice of Catheters.

By different practitioners different instruments have been used and approved. Dr. Ramsbottom contrived and recommended a flat catheter. Sir C. Clarke has introduced a *double catheter*, not without elegance, one lying within the other. In Clarke's instrument you have the advantage of having a small catheter within a larger, so that if the urethra is so small that you cannot introduce the larger, in some cases, at least, the smaller may be substituted with success. The length of the catheter which I use is about six inches. Shorter catheters may generally draw off the urine, but not readily in all cases. The instrument ought not to be straight, for then you are more likely to pass it through the back part of the urethra; a certain degree of curvature, somewhat bold, should be given to it, so that, during the introduction, the point may be easily passed upwards and forwards. At the inferior, or finger end of the catheter a stop ought to be placed; it enables you to hold it more steadily, and prevents the risk of its slipping into the bladder. All catheters are properly made with the upper extremity closed, being opened at the side by apertures. Some of the older catheters have only two or three punctures in their extremity; but these are not sufficiently numerous; there ought, at least, to be four or five on each side, for some of them may become obstructed, and thereby the flow of the urine may be prevented.

Course of the Urethra.

The first and most difficult point, in introducing the catheter, is to find the orifice of the urethra; it may, therefore, be as well that I should here remark, that the urethra may lie in three principal directions:—first, on the back part of the symphysis pubis, being drawn upward more than ordinary, as in retroversion of the womb;—secondly, in a course stretching downward and backward, towards the point of the os coccygis, as in a case of procidentia, where the uterus is pushed forth between the limbs; and, thirdly, it may lodge behind the symphysis pubis, but in a direction somewhat distorted; for the urethra occasionally takes a tortuous course, especially in cases of relaxation, where the urethra comes down a little way, and

that such distortion exists, you may know by the movements of the catheter, for it is in these cases that, during introduction, it turns variously, as before stated.

Three modes of detecting the Urethra.

To obtain the situation of the orifice of the urethra, if the operator be unskilful, it may sometimes be necessary to expose the person a little for this purpose; but when tact is not wanting, its position may be detected without, and there are different modes in which this part may be discovered. First, by putting the patient in the recumbent posture, and planting the tip of the left index on the glans, you may afterwards carry the finger downward about an inch, at an equal distance between the nymphæ, when you will find its extremity lying immediately before the orifice which you seek, and the instrument may then be easily introduced. This is a very good method of introduction, but rather wanting in decorum. Secondly, by placing the woman on her left side, in the usual obstetric position, afterwards placing the finger upon the urethra, to be felt like a piece of laycord close upon the symphysis pubis, and then carrying the finger down to the arch of the pubis, where the orifice of the urethra may be discovered, especially on moving about a little; and the opening once discovered, the catheter may be easily introduced with the other hand. This method succeeds very well; it does not expose the person of the patient, and it is more convenient for the abstraction of the urine. And lastly, there is another mode, and that which I prefer in my own practice, but it requires a good deal of experience to be able to use it with dexterity, and this consists in placing the finger immediately on the point of the arch of the symphysis pubis, close to which lies the orifice of the urethra, and there feeling for the opening, it may, in some instances, be readily detected. In some instances, however, the orifice is so flaccid, that you may have a difficulty in distinguishing it; and, under this circumstance, you may venture to apply the catheter at a risk upon the part, when you will generally find that it enters without difficulty, on moving it about a little; in most cases, as the orifice is generally a little dilated, and sometimes also elevated at its margin, you may feel the aperture readily enough.

Introduction of the Instrument.

When you are about to introduce the catheter, you should provide a large vessel, to collect the water; and you ought to have a small one also, to receive it immediately from the instrument, and I think, one of the most convenient vessels for the purpose is a decanter, or any bottle, of proper size.

Then proceeding to discover, and having found the orifice of the urethra in one or other of the modes proposed, you lubricate the catheter, taking care that you do not close up the punctures of the

instrument, and then passing it into the opening, you slide it onwards, carrying the point upwards and forwards above the symphysis, but not with violence. If the instrument will not pass without violence, lay it aside altogether; the back of the urethra has been bored through, over and over again, to the dishonour of the profession, so that there is no need to perform that operation again.[1] In passing the catheter, not only proceed with gentleness, but beware of holding the instrument sturdily in a certain position, as if you were determined to carry it up, according to strict anatomical rules, bearing down all resistance *in a scientific manner*, for sometimes the urethra lies very much out of its ordinary course. My own method is to pass up the catheter with the utmost gentleness, holding the instrument lightly, that it may take its own turns in ascending, when you may sometimes observe it to describe nearly a complete circle before it enters the bladder.

Causes of the obstruction to the passage of the Urine.

The catheter being in the bladder, you may generally abstract the water easily, but sometimes on removing the stilet not a drop will be found to pass; and being surprised and rebuked, you collect yourself a little, and begin to consider what is the nature of the impediment. Now there are different causes to which the failure of the flow may be ascribed, the following being the principal:—sometimes the calibre of the catheter is obstructed by some foreign substance, and sometimes the apertures of the instrument are shut up; in other cases, you may have introduced the catheter into the vagina or the uterus, mistaking it for the urethra; or if the introduction have been forcible, you may have made a false passage, and the instrument entering the urethra below, may have been forced through the back of it into the vagina; in other cases, the catheter may lie within the cavity of the bladder, but a failure of the flow may result from a paralytic weakness of the viscus; in other cases, the failure may arise, not from the non-entrance of the catheter, but from a want of the secretion of urine; now and then, though rarely, it happens that the failure results from your not having passed your catheter sufficiently far, particularly in cases of retroversion; and the difficulty may still less frequently arise from your having got the instrument into one of those deep mucous follicles[2] to which I before adverted.

[1] I know of one case, in which a male catheter being employed, the point was pushed through the back of the neck of the bladder, the patient dying in consequence.

[2] A very useful and illustrative case of this kind is the following:—A lady, in the country, laboured under a retention of the urine: the practitioner, a man of candour and talent, introduced the catheter, and withdrew the water, and again he tried to introduce the instrument, but failed; gave some pain to the patient, and declined proceeding further. There was a talkative nurse there, generous in the gift of her opinion; and, in consequence of her weighty

Conclusion.

When you have entered the bladder with the instrument, and find the urine is flowing, I should recommend you not to withdraw the whole quantity at once. Suppose there are several pints, or two gallons, accumulated, then abstract about the half of this, and let the bladder contract upon what remains, introducing the catheter again, and abstracting the remainder some few hours afterwards; under this practice, there is, I think, less risk of inflammation. After the urine has been drawn off, you ought to be on your guard against inflammation of the bladder, or any other chronic disease. But should inflammation supervene, I would treat it on the same plan as inflammation of any other important viscus.

SECTION XIX.

ON RUPTURE OF THE BLADDER.

Rupture of the bladder is happily not very frequent with women, yet it occasionally occurs. The vesical cyst may give way posteriorly into the peritoneal sac, the urine becoming interfused among the viscera; or, the laceration may be seated in front, the water making its escape into the cellular web, which lies about these parts, and covers the contiguous surfaces.

Prognosis and Treatment.

If the urine is extravasated in front, I fear that there is little to be done: inflammation, sloughing, and death, are successively the fate of the unhappy patient. If, however, instead of the anterior rupture, there is a laceration of the bladder behind, so that all the urine escapes into the peritoneal sac, I conceive there is yet something which might, perhaps, be attempted. Were a relative of mine

decision, another practitioner, a rival, was called; who took, as it appears, some advantages, not very honourable, of this paltry incident, and passed the catheter a first time successfully enough, but, on a second trial, failing, yet being unwilling to lose his laurels, he pushed the instrument onward with some little violence, occasioning pain and bleeding, but no discharge of the urine. In this posture of circumstances, Dr. Haighton was sent for, and he introduced the catheter without difficulty, the first time; but on making another attempt, he also failed; recollecting, however, this deep mucous follicle, and suspecting that it was lying near the orifice of the urethra, he examined more carefully, and found that the whole difficulty arose in consequence of the instrument sometimes entering the one canal, and sometimes the other, and then took his measures accordingly.—*Dr. Blundell.*

in this condition, I should recommend the making of an opening above the symphysis pubis, to withdraw the urine, and then the thorough ablution of the abdominal cavity and its contents, by means of the free injection of distilled water, 98°, or more, of Fahrenheit's thermometer; the operation being continued prudently, no symptoms forbidding, till the water flow away without manifesting the urinary characteristics. We well know that if the urine is left in the peritoneal sac, extensive and fatal inflammation must ensue; and it is quite evident in the present state of our knowledge, that the escape of the patient is without hope. The peritoneum thoroughly washed, I would then recommend that the ruptured part should be drawn up to the abdominal opening, and the bladder being, at this time, lax and dilatable, this might easily be done; this accomplished, the laceration might be closed with ligature, the parts of the bladder, lying forth beyond the ligature, being carefully cut away, and the bladder being then drawn up by means of the ligature to the abdominal opening internally, and of the ends of the ligature, one might be cut away, and the other might be brought to lie out at the wound, to separate, and be withdrawn afterwards, as in tying up an artery. Disruption of the bladder ought, I think, by no means to be given up as wholly desperate; facts ought to be collected—experiments ought to be made—proper cases ought to be chosen—and skilful operators ought to give their help; and, by proceeding in this manner, I am not without hope that, in some few cases, life might be preserved.

Experiments bearing on the above treatment.

With a view to substantiating my opinion of the practicability of the above measure, I have made some experiments upon the rabbit, the results of which I will now relate. Into the abdominal cavity of four rabbits, I threw about two ounces of human urine, and left it there for an hour; after which I withdrew the urine, and washed the viscera thoroughly with tepid water from the cistern; of these four rabbits three died with general inflammation of the peritoneum, but the fourth lived. It follows, therefore, that this animal, though prone to disease within the peritoneum, and containing many and large viscera, may, nevertheless, escape with life, though these viscera have been bathed in urine for fifty or sixty minutes, provided the cavity be then washed out. Such escapes, however, are, I suspect, both narrow and rare. Again: in another set of experiments, I tied up the fundus of the bladder in the rabbit, afterwards cutting the fundus away, and I have found that, in a few days, the ligature separates, leaving the bladder closed, though some of the rabbits have perished some months afterwards in consequence of chronic disease, not apparently the necessary, but the accidental, effect of the experiment. Since these experiments were made, Mr. Travers, so well known by his excellent writings, has tied up, with success, a small aperture in the stomach. So that, although I would not

have you rashly engage in an undertaking so hazardous, yet it may, I think, be asserted, that what I am here proposing is not thrown out at random, without any basis, on which it may rest, but confirmed, in some measure, by surgical observation and experiment.

SECTION XX.

INCONTINENCE OF URINE.

An incapability of retaining the water, called an *incontinence* of urine, like the urinary retentions, may arise from very different causes, requiring a little attention from us, and to the consideration of these we will now proceed.

Scirrhous change followed by malignant ulceration.

The uterus is too frequently the subject of a sort of scirrhous change, followed by malignant ulceration; and this malignant ulceration, beginning about the neck and mouth, gradually spreads itself into the vagina, the rectum, and the bladder. When the bladder is laid open into the vagina, of course an incontinence of urine is produced, this being the last stage of the malignant ulceration, and admitting of no effectual cure. Dilution of the urine, by drinking freely of aqueous fluids, and the thorough ablution of the vagina, by the injection of tepid water, are principal palliatives in cases of this kind, and the more attention is paid to cleanliness the better.

Over-distention of the Bladder.

A second and important variety of the disease, originates in that retention of urine, where the obstruction of the urethra is partial and not complete, thereby giving rise to over-distention of the bladder. In these cases, when the bladder becomes loaded, there may be continual strangury, the patient being attacked, at length, with much abdominal pain and tenderness, and continual urging, the urging, in some instances, being scarcely less vehement and painful than that of parturition itself, with repeated gushes of the urine in small quantities, and accompanied by a great deal of constitutional irritation. Now, the impression made on the mind, particularly before this urging manifests itself, is, that there is no retention of the urine, but simply *an incontinence*, a mistake obviously of grave consequence, as rupture of the bladder may arise from the misapprehension. The effectual means of relieving an incontinence of this kind, is the introduction of the catheter, to empty the bladder

thoroughly, after which the cause of the retention should, if possible, be ascertained and removed, on principles already explained.

Weakness of the neck of the Bladder.

There is yet a third variety of incontinence, and that is, the incontinence of urine which results from a mere weakness of the neck of the bladder, common in those women who have had very large families. In these cases, more especially if the child be large, or the pelvis small, when the labour has been laborious, the bladder is apt to get so infirm about the neck, that it loses much of its retentive power, and perhaps, from the moment of delivery, the woman is incapable of retaining the water; or if, at any time, she chance to cough, laugh, rise suddenly, or in any other manner contract smartly the abdominal muscles, the water comes gushing away. For years, this disease may continue, in greater or less severity, but it frequently cures itself, in good measure; and the first few weeks after delivery, say at the end of the fortnight, the patient is better; at the end of the month, the retentive powers are still more increased; and in the course of a few more weeks, she becomes able to hold her urine very well, though still liable to the gushes, when sudden efforts are made. Hence, when incontinence is the result of an enfeebled cervix vesicæ, *time* must be looked upon as one of the principal remedial means; in some cases, perhaps, advantage may be obtained from plunging the hips into cold water two or three times daily. The improvement of the general health is by no means to be neglected, for the more you improve the general health the more you will increase those healing powers of the parts on which all cures are more immediately dependent. Commendation is bestowed by some upon the use of blisters, and they may, at least, deserve a trial, a large one being applied alternately to the abdomen and to the loins; the vesications being repeated for five or six times, as the parts may be found to bear them. Whether any advantage would be derived in these cases from blistering the back part of the neck of the bladder, I am not prepared to say, but I presume this would not be found impracticable, for the upper part of the vagina lying in contact with the neck of the bladder behind, something stimulating might be applied there for four or five hours together, according to the effect produced; and in cases where there was a mere weakness, without grave organic lesion, if stimulus is likely to be of use at all, I should expect more advantage from this local excitement, than from extensive but remote vesication of the abdomen or the loins. Understand, however, clearly, that I do not recommend you rashly to resort to this practice, which may be attended with its evils; but I think it proper to mention it, and the proposal may not be undeserving of further consideration.

Aperture through the neck of the Bladder.

A most obstinate form of incontinence is that which results from an aperture formed by slough, and leading through the neck of the bladder into the vagina. The aperture may be very small in its size, so much so, that you cannot clearly distinguish it by careful examination, or, on the other hand, it may be of very considerable dimensions, inasmuch as two or three of the fingers may be passed through it into the urinary cavity. This state of the parts may generally be traced to parturition as its origin. The labour may have been laborious and instruments may have been used; for the first few days after delivery the urine has passed with difficulty, or the catheter has been required, and then, perhaps, for a few days more, the water has flowed without help; then, perhaps, an incontinence of urine has followed, succeeded by the escape of a membranous substance from the vagina, which, on immersion in water has been found to consist of a portion of bladder and vagina, altered in consequence of mortification. Under these circumstances, if you are in doubt, the nature of the accident may be ascertained by a careful manual examination. Proceeding then to examine the parts, you will find that a communication has been made, by slough, between the bladder and the vagina. If the aperture is large, it may be detected easily by passing the finger through the opening, where, too, if the catheter has been previously introduced, it may be felt bare, or, on the other hand, if the aperture be small, it may be very often felt by a delicate touch, in the same manner as you may, by examination, detect the os uteri. If the aperture is so small that you cannot discover it by manual examination, there remains one other mode by which the disease may be ascertained, and that is by inspecting the orifice of the vagina, and ascertaining whether, under forcing, the urine passes from the vaginal orifice, or that of the urethra, or from both. In some cases, perhaps, a piece of sponge passed into the vagina might enable us to determine whether the urine really found its way into this canal or not. In cases where much nicety of discrimination is required, the vaginal dilator may be used, which, with or without a speculum, will enable you not only to ascertain, with precision, whence it is that the urine is flowing, but also the size of the aperture, and the situation in which it is placed.

Treatment in these cases.

There are two ways of treating incontinence arising from an opening in the neck of the bladder: the one, with the view to palliate only; the other, with the view to a perfect cure. Of these two methods, women will seldom submit but to the trial of measures of relief only.

Palliative measures.

The principal palliative measures are three. In the first place, the patient should drink somewhat copiously in the course of the day; not at her meals, however, for fear she should disturb the digestive organs. Pure water, toast and water, or any similar beverage, she may drink freely so as to dilute the urine, and diminish its acrimony; and by drinking one or two pints more than ordinary, in the course of the four-and-twenty hours, she will find considerable relief from the excoriation, inflammation and swelling, produced by the distillation of the urine over the surface of the vagina.

A second measure of treatment, of no small importance, is that of great, if I may be allowed the expression, *vaginal cleanliness*. In the same way that the hands and feet are daily, and repeatedly purified by ablution, so, too, this part of the body may be kept clean. I should, therefore, recommend the patient to wash the vagina six or eight times in the course of the day, or at least, three or four times; and this vaginal washing may be done in two ways, with great advantage; the one by using the hip bath, the other by the employment of the syringe simply. Proceeding in the former mode, the patient should take her seat in the tepid water of the bath, and filling with the water a half-pint syringe, armed with a tube long enough to reach to the upper part of the vagina, and placed at a convenient angle with the barrel of the instrument, she passes this into the passage, so as to reach its superior part; and then by expelling the water briskly, the vagina is cleansed from one extremity to the other. This should be repeated three or four times in succession, and the whole operation ought to be performed four or five times in the course of the day. There is, however, a still more simple mode in which vaginal ablution may be accomplished, and that is, by the use of the syringe without the bath, which will often be found to answer the purpose very well. The patient may sit if she please, but the recumbent posture is preferable; and by repeated injection with the syringe, she may purify the vagina as before. In pursuing the practice, it ought to be a main object to perform the operation sufficiently often, and thoroughly well, and when executed in this manner, all that is offensive and acrimonious will be removed from the vagina, and the surface, if broken by superficial ulcerations only, is very likely to heal.

A third palliative which may be thought of, consists in the use of some instrument which may close up, in the way of a plug, the opening into the bladder. The practice is more especially recommended by Mr. Barnes,[1] by whom we are advised to take a ball pessary, and to cover one hemisphere of it with a piece of fine soft sponge, afterwards sliding the instrument into the superior part of

[1] Mr. Barnes published a paper on this subject, in one of the earlier volumes of the Medico-Chirurgical Transactions.

the vagina. If the aperture be very small this instrument is not likely to be of much service; but if it is large enough to admit a finger, for instance, then the sponge will make its way into the opening, and may be expected to close it. When the urine is to be evacuated, the patient may withdraw the instrument, and suffer the urine to flow, afterwards replacing it; or, that which is far preferable, she may be taught to introduce a catheter, and if she can perform the operation well, it may render the removal of the pessary unnecessary.

To recapitulate; the above, then, are the three palliative measures well worth your consideration, for the disease is one of the most distressing kind;—the thorough dilution of the water;—the thorough ablution of the vagina;—and in those cases where the aperture is large, and which would seem to admit of the least remedy, the introduction of a pessary coated with sponge which may close the aperture in the way of a plug. I may remark here, however, that when no plug is applied, the urine may be retained in the bladder, the patient being quiet, and in certain positions especially, to the amount of a few ounces. In these cases, a part of the retentive power may depend on the situation of the aperture, but more, I suspect, is to be attributed to the action of the vagina; for the neck of the bladder lying in contact with the vagina behind, the vagina, swelling out a little, may press into the aperture, and thus act much in the same manner as the sponge itself is designed to do.

Means of radically curing the disease.

For the complete cure of incontinence from the cause under consideration, many and very different measures have been proposed. For my own part, I should say, that if the disease be of very recent occurrence, if, for example, you have attended the labour, and have had the woman under your care, when the slough comes away, then, by improving the general health as much as may be, by keeping a catheter introduced in the bladder, leaving it there, so as continually to draw off the water, a bottle or bladder being connected with the outer extremity, you may, *perhaps*, sometimes find in these cases of slough, that the part will heal and close up of itself; although certainly such closures are of very rare occurrence. Where, however, a slough once separates, so as not merely to break the continuity, as incision or rupture might do, but to remove a part of its substance, I presume it rarely happens that the disease cures itself in this way. Of a cure of this kind, I never, myself, saw a well-marked case, nevertheless, it should be attempted, for if the opening be small, and a good deal of adhesive matter be secreted, the aperture may become closed. Of course, the less the bladder is disturbed while this operation is proceeding, the better, for motion disarranges, more or less, the process of healing.

In those cases in which the aperture, fistulous, perhaps, is of small size, scarcely large enough to admit a small catheter, for ex-

ample, it has been proposed that we should attempt a cure by means of the actual cautery.[1] With a good speculum and a vaginal dilator, in women who have had a large family, it is very easy to obtain access to the upper part of the vagina in front, where the opening lies. The practice of cauterising, however, is rough; and as the disease admits of relief by means of the mild palliatives before recommended, the cases in which it might be proper to advise its adoption, must be rare. For myself, I have hitherto had no experience of it; yet it is proper I should add, that in one case in which it was tried by an eminent surgeon in this country it failed of success, but the patient suffered no further injury in consequence.

Where there is an aperture of this kind, it has been proposed that we should close it by ligature; and this extension of a principle before laid down, was first suggested by an esteemed pupil, Mr. Preston. Of this operation, it is, I think, proper that we should not lose sight altogether, though it would be found, I fear, of no easy performance; for the whole space of surface on which we should have occasion to operate, is so circumscribed, that the application of a ligature in any way, must be difficult; and it would be still more, to apply it without distressing the urethra. These difficulties ought not to be concealed; but, after all, I cannot forbear indulging a sanguine expectation, that if the ligature could once be properly applied, a speedy closure of the aperture would ensue.[2]

Again, in the cases of fistulous openings, there is another practice which has been suggested, a rough one it is true, but which, however, deserves a passing notice. In this practice, it is proposed, that we should take an instrument and divide the urethra from one end to the other, care being taken that the fistulous aperture shall enter into the incision and form a part of it; smart inflammation would result from this, but not, perhaps, more active than that produced by an operation of lithotomy; and from this inflammation a closure of the opening might be expected; but to an operation of this kind, I think that actual cautery might be preferable; indeed, the actual cautery, in small fistulous openings, is, perhaps, the most promising remedy of the three proposed.

Rupture of the back part of the neck of the Bladder.

Incontinence of urine is sometimes the result of a rent in the back part of the neck of the bladder, laying it open into the vagina; the opening arising not from slough, but laceration; an accident the general result of over-distention during parturition. During labour, the bladder becomes overcharged with urine, and the head of the

[1] This method of treatment, I understand, is adopted in France, with success. Mr. Travers, from whom I first received my information, assured me that he had seen it performed.—*Dr. Blundell.*

[2] Remember the experiments already laid before you, in which ligatures were applied to large apertures in the bladder of a rabbit, with the effect of closing it completely.

child coming down into the pelvis, presses the bladder, thus loaded, against the symphysis pubis, so as to divide it into two chambers, one of which lies below the head at the arch of the pubis, and the other above and in front. If the bladder be emptied carefully by the introduction of the catheter, no ill effects ensue; but if the delivery be accomplished without emptying the bladder, the head still pressing down upon the lower chamber, it bursts the bladder, and the urine comes away in a large gush, giving the first indication of the occurrence of the accident, and on making your examination as soon as this gush issues, you find there is a large aperture, into which you may pass two or three fingers. Now, at the first sight, this would appear to be an accident, which scarcely admitted of a remedy; and certainly it is much to be deprecated, and the rather, as it may too often be attributed to the bad management of the obstetrician. Nevertheless, I am satisfied that the closure of the bladder, by healing, is by no means impracticable in all these cases. With this view, improve the general health as much as may be, introduce a catheter into the bladder, and let it be continued there, so as to withdraw the water continually, and perhaps you have the satisfaction in the course of a fortnight or three weeks, or a month afterwards, of finding the parts internally healed. A free dilution of the urine may be of considerable importance here; and, as before recommended, a bladder or a bottle should be annexed to the lower end of the catheter, to collect the water as it flows.

Between this case and that in which an opening is produced by slough, there is a considerable difference; in slough, there is not merely the aperture, but the removal of a part both of the womb and the vagina; in rupture, no substance is wanting, the injury being effected by a simple disruption of the texture. In slough, too, there is always a great deal of injury inflicted on the parts contiguous, but in these cases of rupture, the injury may scarcely exceed that which might be produced by clean incision with a knife. Do not, however, hastily take up the notion that in these ruptures the bladder is always or even generally healed, for this I very much doubt; such closures, however, most undoubtedly occur sometimes, and I have seen one very conspicuous instance of it.[1]

[1] A woman, in the neighbourhood of this metropolis, under smart labour, was delivered by the lever, with no small violence, according to her own report; and when the child's head was liberated from the pelvis, the perineum was torn and a copious gush of the water issued, and from this she laboured under incontinence; the water issuing continually, and the parts becoming excoriated, inflamed, and swelled. A friend of mine, a very excellent obstetrician, being called at length to see this case, he found her with the urine still flowing, and labouring under a great deal of excoriation and irritation in the vagina and parts adjacent, and, led by these circumstances, he instituted an examination, when he perceived an aperture in the bladder, which he requested me also to investigate, when I plainly found a rupture of length sufficient to have admitted two or three fingers at once. This woman I subsequently examined with more care, for I was subpœnaed

SECTION XXI.

SCIRRHUS OF THE UTERUS.

Among the various diseases to which the womb is liable, not the least important is the indolent scirrhus; and of those cases of scirrhosity there are three varieties, the knowledge of which is of practical importance to the obstetrician.

Diffused Scirrhus.

In this disease of the uterus, we sometimes find that the whole substance of the uterus, together with the parts of the vagina which lie contiguous, are involved in a scirrhous disorganisation of the *diffused* kind, spreading itself equally in all directions through the uterine substance. Under this diffused scirrhous disorganisation, the womb may enlarge gradually and greatly in its size; at first, perhaps, it becomes as large as the pullet's egg; then, big as the closed hand; afterwards, bulky as the child's head; and, ultimately, as large as the uterus at the end of a nine months' pregnancy,[1] or even larger than this.

to give evidence respecting the case, as it became the subject of legal investigation; and some time after I had made the first examination, I saw her again, and, on making further examination I found the neck of the bladder was completely closed, and the woman could then retain her urine sufficiently well, though not with the same power as before the accident occurred. Now, in this case,—which, after considerable experience, I examined with more than ordinary attention, and where, though at first two or three fingers were introduced through the opening in the neck of the bladder, a complete closure was at last accomplished,—the cure was obtained in the manner recommended above, by introducing a catheter and keeping it there, a bottle being affixed to its inferior extremity, and the urine being in this manner withdrawn continually by the natural canal: the general health, as a matter of course, being at the same time made the subject of attention.—*Dr. Blundell.*

[1] I have a specimen of the diffused scirrhous action, presented to me by my friend, Mr. Workman, of Reading, which has acquired the size of a nine month ovum. In this case, there is a sort of fungous growth pushing forth into the vagina, and giving rise to very frequent and copious bleedings, under which the patient eventually sunk. I have also another specimen of the diffused scirrhus, in which the surface of the uterus is rounded, and very smooth and equable, very different from what we observe in cases of tubercular scirrhus in the advanced stage, for in them the uterine surface becomes irregular and tuberose, bumpy, if I may be allowed a coarse but intelligible and significant expression,—a state of tumour which is the rather deserving of your notice, because it is very strikingly characteristic of the disease.—*Dr. Blundell.*

Tubercular Scirrhus.

In some cases, instead of the disease being of a diffused character, the parts are assailed with scirrhus of the *tubercular* kind. During the early formation of this variety, the general structure of the uterus is perfectly healthy to all appearance, but embedded in its substance are the tubercles, sometimes fewer, sometimes more numerous, ten or twenty in number, or perhaps not more than one or two.[1] At first, these tubercles are not larger than peas, but within limits they may enlarge very considerably, so that when they are numerous, the womb may become as large as in cases of diffused scirrhosity.

Single scirrhous Tubercle.

In addition to the preceding forms of scirrhosity of the uterus, there is also a third variety of this affection, and which, in practice, it is necessary to distinguish from the two former, and it is that in which you have a *single tubercle* only, or only one or two tubercles of large size; the rest, if any, being of diminutive bulk, so as to have but little influence over the symptoms of the disease. When the large tubercles are few, or single, they may be variously seated in different cases, on the fundus, the mouth, the front, the back, the sides, the womb sometimes enlarging exceedingly under this form of the disorder, indeed no less so than in the two former varieties. The symptoms in these cases of single tubercle, very much depend upon the seat of the disease. If the scirrhous mass be growing from the fundus of the uterus, or laterally, it may occasion but little inconvenience, but it may distress the patient much when seated in front or posteriorly, as in these situations, more especially if it lie low in the pelvis, it may urge and distress either the bladder or intestine, so that the patient and the practitioner are led to suspect a variety of disease, such as hemorrhoids, cancer of the rectum, ascarides, calculus, strictures of the urethra, irritable bladder, and many other affections.

Extension of the scirrhous disease to other parts.

In all three varieties of this disease, it is not to the uterus only, or to the womb and the vagina, that the disease is confined, for it not unfrequently happens, that, together with these parts, the ovaries, the fallopian tubes, the bladder, the rectum, and, in rarer cases,

[1] I have a specimen which consists of a single tubercle, growing from the posterior surface of the uterus, and which would have ultimately troubled the patient much, by bearing on the rectum and the parts adjacent. I have also a specimen of a solitary scirrhous tubercle of great bulk, formed on the womb anteriorly.—*Dr. Blundell.*

the liver and lungs themselves, are involved in the disorganisation. Moreover, be it understood, that the disease is more likely to prove topical when it takes the form of tubercle, and more frequently spreads over the parts contiguous, when it appears in the diffused variety.

Scirrhus in conjunction with other diseases.

In scirrhosity of the uterus, the disease may consist of scirrhus merely, or of scirrhus in conjunction with polypus,[1] fungus, or other affections, in themselves more or less formidable, though these combinations are by no means very frequent.

State of the Os Uteri.

So also the state of the os uteri varies much in this disease;[2] it may be large or small, or with a contracted, or with a capacious opening, or with indurations, or with softening; so that, although a scirrhosity of the os uteri, and of the vagina, is a strong corroboration of the real existence of reputed scirrhus in the parts above; the contrary is not certain; and we must not hastily infer, because the mouth of the womb is healthy, that, therefore, there is the same soundness in the parts of the womb which lie above.[3]

[1] I have an excellent example of polypus concurring with the scirrhous disorganisation.—*Dr. Blundell.*

[2] The cervix of the uterus will either be found thickened, and with a resisting feel resembling that of gristle, or a distinct tumour will be perceived arising from some part of the cervix uteri, the other parts remaining healthy. In either case, pressure upon the diseased parts produces pain of a lancinating kind.—*Sir C. M. Clarke.*

[3] Dr. Waller lately attended a case, and has the preparation in his museum, where the disease commenced in the body of the uterus, afterwards extending to the cervix.—*Denman's Midwifery, by Waller*, p. 79.

Dr. Montgomery thinks that the disease begins less frequently in the cervix than practitioners imagine.—*Dub. Hosp. Rep.* V. p. 412.

In some cases, upon dissection, we find it confined to the lips, neck and lower part of the body of the uterus; in others, the fundus and upper part of the body, are alone diseased, whilst in a great many the whole uterus is indurated.—*Dr. Burns.*

Sir C. M. Clarke, on the contrary, says that the disease attacks only, in the first instance, the *cervix uteri;* asserting that carcinoma particularly affects glandular parts, and the neck of the womb being the most glandular part of it, is probably the reason why it is more liable to this disease than any other portion of the viscus. Ed.

SECTION XXII.

OF THE CHARACTER OF INDOLENT SCIRRHUS OF THE UTERUS.

The characters of scirrhous uterus may be conveniently divided into two sets; those which manifest themselves when the disease has been of long standing, and the womb has acquired a large size, and those characters which are observed in the earlier stages of the scirrhous disorganisation.

Diagnostics in long standing cases.

You will sometimes find a patient comes to you with an abdomen as large as if the woman were in the end of pregnancy; but, on a little investigation, she tells you that she has been labouring under the disease for years, a clear proof that the enlargement is not from gestation, for with extra-uterine pregnancy it is scarcely worth while to embarrass ourselves here. On further inquiry, you discover that it is not in the upper but the lower part of the abdomen that the disease was originally seated; and, therefore, that the intumescence does not arise from an enlargement of the spleen, liver, or omentum, but of some part below: probably, therefore, from the womb or ovaries, for an overgrowth of the kidney is exceeding rare. You will find, too, if you examine with great care, that the tumour is lying in the place of the gravid uterus in the general, not obviously inclining more to the one side than to the other side. If the disease be of the tubercular kind, and of many masses, the uterus will have the tuberose form and feel; and if it be a diffused scirrhous disorganisation, then the feel of the uterus will be precisely the same as it is at the end of pregnancy, except that it is harder. Thus, then, if you find in the abdomen a tumour hard, circumscribed, of years' standing, and which, therefore, cannot be referred to pregnancy, you may be pretty well satisfied that it is not from gestation; and this opinion will acquire additional strength, provided you learn that the tumour formed originally in the region of the pelvis, and that it still lies centrally in the region of the gravid womb. Tuberosity of the swelling is a useful corroborative diagnostic, but a smooth and equable surface is no disproof of the disease. An indurated os uteri is a valuable sign of scirrhosity, but the womb may be scirrhous, although its mouth be sound.

Diagnostics in recent cases.

Patients labouring under scirrhus of the uterus, will sometimes call upon you much earlier; when the tumour is not bigger than the fœtal head, for example, in which condition it may produce many distressing symptoms, although the tumour may not be very obvious to the touch. Now, in these cases, perhaps the patient

tells you that there is a great deal of bearing, as if the interior would push forth; and she adds, perhaps, that she has great irritation about the bladder, and pains of the hemorrhoidal kind; there may also be ripping or lancing pains along the limbs, though these are not common: and there may be a want of muscular power in the legs, with numbness, and other marks of pressure upon the nerves. As the inquiry proceeds, perhaps you are told that there is some swelling seated above and behind the symphysis pubis, perceived as the patient lies in bed, and compared, perhaps, to the fœtal head, or to a melon. Now when you meet with one of these rounded tumours in the region of the bladder, combined with irritation of the rectum, and bearing, and the other symptoms enumerated, you may always entertain a strong suspicion, that the patient labours under the disease in question; but it is by examination, and by examination only, that the affection may be made out with certainty; and where the importance of the inquiry is deemed sufficient to counterbalance the inconvenience, you ought to proceed exactly in the same manner as in investigating a reputed pregnancy of four months; but directions on this point I shall presently communicate. If you feel the uterus hard and round, and large as the fœtal head, there can be little doubt respecting the nature of the affection; if this mass be tuberose, the proof is still more decisive; and if the os uteri is hardened, or if the vagina be thickened and indurated, there can be little doubt as to the real nature of the disease. Remember, however, that you must not decide too hastily, and you must not infer that you have a scirrhosity of the uterus, merely because the uterus is enlarged, for this enlargement may arise from a pregnancy of four months, not always disclosed to the practitioner; it may arise, again, from a pregnancy of seven or eight months; and then the abdominal muscles, and the uterus, being very thin, you may feel the head with considerable distinctness, and may mistake this for a scirrhous womb.

To these remarks let me also add, that in some cases the womb prolapses a little, and no os uteri can be felt, the aperture being more contracted than ordinary; and, under such circumstances, if the uterine enlargement be inconsiderable, the case may be mistaken for a chronic inversion, an error of which I have seen two instances. Errors like these, however, imply a want of due skill, or due attention in the practitioner. A blunted probe may, in these cases, be passed into the uterine cavity. If, however, you bear these errors in mind, and if you examine with due care, repeating the investigation, if necessary, at the end of one or two months, provided you possess the requisite dexterity, your diagnosis may, I think, generally be established, and with certainty enough.

Symptoms in either variety.

In all varieties of the disease, whether of single tubercle, of numerous tubercles, or of scirrhus of the diffused kind, there may be

mucous discharges or flooding, or occasionally a regular flow of the catamenia. Frequently there are inflammations of the scirrhous mass: sometimes there are ulcerations, but, happily, these ulcerations, always formidable, are by no means frequent. Occasionally, the urine is retained, especially where the growth is in front, and the scirrhosity tubercular; occasionally, violent spasmodic pains are felt in the uterine region.

SECTION XXIII.

TREATMENT OF SCIRRHUS OF THE UTERUS.

The treatment of this disease, so far as it admits of that which is useful, may be dismissed in very few words, for, in truth, there is little to be done; yet some remarks may be made with advantage.

Very active Remedies not advisable.

With the view of removing the scirrhous deposit by absorption, I should dissuade you from having recourse to very active remedies. Iodine[1] may be thought of, but much purging, copious doses of mercury, conium, and other remedies of the active kind, should not be employed with this view; for there is no reasonable hope whatever of removing the tumour in this manner, and if you injure the constitution by this rough practice, you leave the patient worse than you found her. Although, however, you may lay it down as a rule, that you have it not in your power *medically* to produce an absorption of the scirrhous matter; yet there seems to be little doubt, that such absorption may occur spontaneously. By Sir C. M. Clarke a case of double tubercles is recorded, in which the masses wasted away, and the patient died under another disease, when upon examining the uterus, there were the traces of the tubercles still to be seen, so as to prove clearly their previous existence in larger bulk. This shows, that now and then the natural power is capable of accomplishing an absorption of the deposited matter; an encouraging fact, though certainly of very rare occurrence. Let me add further, that with scirrhosity of the uterus in its less extensive forms, impregnation is not impossible; and as the whole absorbent system is developed in the uterus by gestation, and afterwards excited powerfully on delivery, perhaps, now and then, a removal of the scirrhous material may be effected in this manner; and I once met with a case which, to me, appeared to be of this kind, but as it

[1] Drs. Thetford and Montgomery of Dublin, Dr. A. T. Thomson, and others, have found it useful. ED.

occurred in my earlier practice, and was not investigated with sufficient nicety, I would have you receive it as dubious.[1]

Palliative Remedies.

Since active operations are not commendable,[2] you must let your treatment of these cases be principally palliative. Leeches, fomentations, and the antiphlogistic plan of the milder kind, may be proper when inflammatory symptoms occur; but where there is this extensive disease in the abdomen, I would not advise you to bleed largely from the arm. If there is, as sometimes there will be, much spasmodic pain in the uterus, leeches and fomentations, and abdominal poultices, may be employed; and after these have been premised, you may have recourse to anodynes, either taken into the stomach, or used in the form of a suppository. Above all, when there is much irritation of the bladder and rectum, I would recommend you to ascertain whether the enlarged uterus is retroverted or prolapsed, for this is sometimes the case. The uterus prolapsing, may descend a great way towards the orifice of the vagina, and may in that manner obstruct the bladder. Where this occurs, perhaps a pessary should be introduced, at all events the uterus should be passed above the brim of the pelvis, and after this operation has been performed, the urinary passage may become previous, so as to render the use of the catheter easy, or perhaps unnecessary. When the womb is retroverted, you may empty the bladder, and replace the uterus in the same manner as in the retroversion of pregnancy. In the general, remember that the less we interfere with indolent scirrhosity of the uterus, the better it is for the patient, and, above all, beware of salivations.[3]

[1] Dr. Beatty relates a case in which the restoration of the conjugal rites was followed by pregnancy and the re-establishment of perfect health.—*Dub. Hosp. Rep.* 1830.

The co-existence of pregnancy with cancerous tumour of the cervix uteri has been frequently observed, and several cases are well authenticated.—*Boivin, Duges, Siebold, Troussel,* &c.

[2] M. Récamier supposes that he has cured real cancers by the use of hemlock; he sometimes substituted the extract of aconitum, which we have known to be useful as a palliative by other practitioners.—*Boivin and Duges.*

[3] Rœderer relates a case where scirrhous swelling was cured by keeping the bowels open, and giving every third evening, from ten to twenty grains of calomel.—*Haller Disp. Med.* t. iv. p. 676. The utility of calomel is doubtful.—*Dr. Burns.* Mercury ought not to be used.—*Sir C. M. Clarke.*

SECTION XXIV.

PROGNOSIS OF SCIRRHUS OF THE UTERUS.

The prognosis of scirrhosity of the womb may be looked upon as favourable upon the whole; for though it rarely happens that women are cured of this disease, yet it is not, I think, often, that it speedily destroys life:[1] so far, therefore, the prognosis may be deemed very favourable, compared with that of many other diseases of disorganisation.

Effects of the Disease.

Although scirrhus of the uterus does not commonly destroy life, at least in a short space of time, it greatly inconveniences patients by its bulk, its weight, and the displacement of the womb by prolapsus, retroversion, and pressure of the enlarged viscus upon the nerves and other parts. In some cases, too, the patient becomes liable to floodings, particularly if there is a fungous growth, and these floodings may shorten life. Occasionally, too, inflammations occur, indeed they are by no means uncommon. Sometimes, though rarely, I believe, malignant ulcerations manifest themselves, and by them she may be destroyed. Add[2] to this, that the disease may spread into the bladder, rectum, or parts adjacent; and I have known it lay open the rectum into the peritoneal sac, the fæces entering there, and suddenly destroying the patient with collapse, as from internal hemorrhage. So also the disease may be accompanied with other affections, as polypus, or spongy or fungous growths, well supplied with blood, not to mention the concurrence of hepatic tubercles. Thus, though the prognosis is on the whole favourable, and though the patient is not generally destroyed, or, at least, not speedily, by this disease, yet it is not without great evils, and now and then the patient perishes unexpectedly by floodings, by ulcerations, by openings into the rectum, and occasionally, perhaps, by inflammation.

[1] Dr. Hamilton has seen sixty cases of this complaint: in one case the patient died in a fortnight after the commencement of the disease.—Ed.

[2] In a case related by Tenore, all the back part of the uterus was found ulcerated, the rectum diseased, and a communication formed betwixt them.—Ed.

SECTION XXV.

MANUAL EXAMINATION IN CASES OF SCIRRHOUS UTERUS.

In these cases, so long as the symptoms are not urgent, so long it is scarcely fitting to expose the patient to the inconvenience of examination; but should it be deemed necessary in doubtful cases to investigate thoroughly the state of the disease, a manual inquiry must then be made. It is true, indeed, that such obstetrical operations may be by no means agreeable to the feelings of the patient; but circumstances may be urgent, and it may be necessary for her to submit.[1]

Cause of the abdominal enlargement.

When a patient is labouring under a reputed uterine scirrhosity of long standing and large bulk, one of the first points to be determined is, whether the abdominal bulk arise from air, water, adeps, or a diseased growth of the viscera, or from two or more of these causes combined. Gaseous enlargements are elastic, and yield exceedingly under well-directed pressure, and may be readily urged from one part of the abdominal cavity to another. The enlargements of dropsy may, in general, be recognised by fluctuation, more obvious when the fluid is in the peritoneum, more obscure when it is encysted, whether in the bladder, ovary, or the womb, distinguishable, however, in most cases, unless the sac be unusually thick. Adipose enlargements are not confined to the abdomen generally, but affect equally all parts of the body, and may, therefore, be easily recognised; so that if on examination we find a large abdomen, firm, hard, and unyielding, and not to be attributed to accumulations of water, air, or adeps, there is good reason for believing that the intumescence is arising from some *solid* growth; the abdominal mass consisting of solid material only, or of some large solid substance, in which a fluid may lurk.

Situation of the abdominal Tumour.

When satisfied from examination, that the abdominal intumescence arises from solid growth, we ought next to ascertain whether this growth be seated in the superior or inferior part of the abdomen.

[1] Sir C. M. Clarke relates a case in which a practitioner was content to prescribe for a patient without having previously ascertained the real character of the complaint; five grains of blue pill were given every night, with chamomile tea twice a day, for a fortnight: at the end of which time she became worse. Sir Charles, on being called in, made a proper examination, and by adopting the horizontal posture, the injection of tepid water into the vagina, with saline purgatives, after some time removed the complaints, which were only symptomatic of the disease of the uterus.—Ed.

In women, solid enlargements of the liver, spleen, or omentum (unless adipose) are not common; yet, when they exist, lying in the superior and middle regions of the peritoneal cavity, they are very readily distinguished by their firm, hard, and unyielding character, and by our being unable to make a deep depression, when the hand, applied in the region of the hypochondria, below the margin of the ribs, is pressed perseveringly towards the spine. Should the swelling be uterine and scirrhous, of course it will occupy the lower and middle parts of the abdominal cavity, not reaching the pit of the stomach till the disease has advanced to its last stages; and hence, on pressing the parts which lie in the scrobiculus cordis, we shall find that they yield readily under the action of the hand, dexterously applied, while the central parts, and those below, possess an unyielding solidity, even firmer than that which is produced by gestation.

Nature of the enlargement.

It being, by examination, ascertained, that there is a solid enlargement in the lower and central regions of the abdomen, it still remains to be known whether this growth be uterine or ovarian, or a combination of the two affections, a point which, in some cases, it is not very easy to decide. In general, however, when the enlargement is uterine, the mass will be found to lie equidistant between the wings of the ossa innominata; but should the intumescence chance to be ovarian, then, on *careful* and *dexterous* investigation, it will, I believe, in most instances, be found lodging more upon the right side than the left. So that, by examining manually, we may, in most instances of scirrhous uterus, ascertain that there is a large solid growth in the uterine region, of many years' standing, as we learn from the patient; and where this is the case, there can be but little doubt that this enlargement is of the nature of an indolent scirrhus. It must be admitted, however, that the proof is not decisive, as, not to mention pregnancy, the womb may, perhaps, enlarge from other causes; but these are of rare occurrence, and I think I may add, that, in the present state of knowledge, these would not prove of much practical importance. If large tubercles can be felt through the abdominal covering, this will greatly help the diagnosis; if the mouth of the womb and the vagina feel scirrhous, there can be little further doubt. Scirrhosity of the womb and of the ovary may be combined. By emptying the bladder, by lubricating the abdomen, by placing the patient recumbent, and by relaxing the abdominal muscles, the investigation may be much facilitated; but the whole inquiry requires tact.

Examination in recent cases.

If called upon to decide respecting the existence of uterine scirrhus, in the first stages of its supposed formation, when, for example,

the mass is no larger than the head of the fœtus, the bladder previously suffered to become distended, should be immediately, before the examination, emptied of its contents, in order that the abdominal muscles may become more completely relaxed. This done, the patient may be placed on the left side, in the ordinary obstetric position, and one or two fingers of the left hand may be laid upon the mouth of the womb, while those of the right are applied immediately above the symphysis pubis in the region of the bladder, where the upper hemisphere of the enlarged uterus may be felt; so that the womb being interposed between the two hands, its bulk and firmness may be ascertained with nicety. In rarer and anomalous cases, the index of the left hand may be placed in the rectum against the back of the scirrhous uterus, while the thumb is resting on the os uteri; and the right hand being applied, as before, above the symphysis, the state of the womb may be investigated even with greater exactness than before. By these means, a competent and dexterous examiner may almost always ascertain whether the womb is enlarged or not, and the more easily if the patient have borne children; and if, as often happens, in cases of scirrhosity, there has been more or less wasting of the flesh.

Diagnosis furnished by these examinations.

After instituting an examination in these cases, you must ke epin recollection a few remarks, to guard the opinion you may be induced to give. If tubercles are felt through the abdominal coverings, or if the os uteri be large and hard, or if the vagina be scirrhous, of course these diagnostics are of great importance in marking the character of the disease. In doubtful instances, the bulk of the uterus may be registered after a first examination; and a second inquiry may be instituted some two or three months after the first, so as to ascertain whether the enlargement be tardy or rapid in its growth, a point of considerable importance to be known In cases of this kind, the uterus may enlarge, not from scirrhus merely, but from a pregnancy of four months, from hydatids, from mole, or from polypus. An incompetent investigator may feel the head of a fœtus, and mistake it, perhaps, for a large and scirrhous uterus, for of this error, as observed before, I have seen two examples. Remember, however, that if the enlargement is from a pregnancy of four months, or from hydatids, it will increase rapidly; if from the head of a six or a seven month fœtus, the case will be speedily developed by delivery; or if, lastly, it depend upon mole or polypus, sooner or later these substances will most probably be expelled; so that, in the mean time, if doubtful of the real nature of the enlargements, you follow the treatment before advised, your error will lead to little practical inconvenience. Recollect that uterine scirrhus may be associated with polypus, pregnancy, and various affections of the ovary, and let your opinions be given, not indeed with the mean and paltry reserve of ignorance aping knowledge, but with that

philosophic caution which the essential obscurity of the case may require. Gross errors are sometimes committed in these matters, but these are rather to be attributed to the artist than to the art. We ought not, however, to undervalue our brethren, merely because they fail in this part of obstetric knowledge; a man may be well-informed, judicious, and of course a very valuable practitioner, and yet he may not have been in the way of acquiring that nicety of tact, which alone can give worth to his opinions in inquiries of this kind.

SECTION XXVI.

SCIRRHUS OF THE OVARIES.

In the same manner as women are liable to be affected with scirrhus of the womb, diffused or tuberose, so also they are subject to scirrhus[1] of the ovaries, a disease more frequent, I think, than of the uterus itself.

Variety of the Scirrhosity, and progress of its growth.

Of the two forms of disorganisation mentioned, it is, I apprehend, the *tuberose* which most frequently attacks the ovary, and, therefore, when this viscus is enlarged, frequently it is the bumpy or tuberose surface which characterises the disease; sometimes, however, the scirrhous change is of the *diffused* kind, the whole mass of the ovary enlarging, and the surface remaining equable and smooth. Under either form, the ovary may enlarge very much, becoming successively large as an egg, large as the head of a fœtus at the full term of gestation, large as the fœtus itself at the close of nine months, and, ultimately, even larger than this.[2] The rapidity, also, with which the enlargement takes place, is liable to much variety, though, if the disorganised ovary be composed of solid material only, without dropsy, the growth will, I believe, be generally slow; months it will certainly occupy, and more frequently years.

[1] Le Dran asserted that scirrhus always preceded dropsy of that organ; but Dr. Hunter never found a dropsical ovarium in a truly scirrhous state. *Dr. Ryan.*

[2] Dr. Vetter saw one tumour weighing fifty-six pounds, and of a consistence almost cartilaginous, and another enormous cancer of seventy-five pounds weight.—*Acad. de Med.* 1825, 1829.

One or both Ovaries may be diseased.

When the ovary becomes scirrhous, one side only may be affected with the disease, or the ovary on the opposite side may also be involved in the disorganisation, the two being affected in very unequal degree, nor is this by any means uncommon. Scirrhus of the ovary may also be associated with a similar disorganization of the tubes, the womb, and the remoter parts, extensions of the disease of no small importance. In *pure scirrhus*, of course, as the very epithet implies, no other disease supervenes, but now and then we meet with cases in which other disease combines with scirrhus, inflammation more frequently, abscess more rarely, ovarian dropsy not uncommonly,[1] and when the inflammation is superficial, the ovaries are very apt to contract adhesions with the surrounding parts.

Attachments of the scirrhous Ovary.

When the ovary is large as the closed hand, being of a size to fall into the recto-vaginal cavity, so as to obstruct the vagina, it may become completely fixed there, so that you may not be able to press it above the brim; or, where the ovary is lying above the brim of the pelvis, superficial adhesions may take place, so as to connect the viscus with the intestines, omentum, and parts contiguous. In different cases of scirrhosity, too, there may be much variety in the condition of the basis of the ovary; that part, I mean, by which it is attached to the sides of the pelvis, in the healthy condition of the parts; for sometimes the connexion is slender, perhaps not thicker than the finger, and sometimes it is as broad as the palm of the hand, and the uterus and the ovary may be so far consolidated with each other, that to detach them is a work of some nicety.

Three varieties of scirrhous Ovaria.

The characteristics of scirrhous ovaries are diversified according to the age of the scirrhosity and its consequent bulk, so that, in practice, three varieties of the disease must be distinguished from each other.[2]

[1] See note on preceding page.

[2] By some writers scirrhus of the ovarium is divided into two kinds, the true or *hard* scirrhus and the *soft* or *cerebriform* cancer. Cerebriform cancer increases rapidly; according to Dr. Seymour, it sometimes becomes enormous in a few months: true scirrhus on the contrary increases slowly, and may continue for many years without acquiring any considerable size. The former occasions much more suffering and lancinating pains, more tenderness and fever, and brings on a much more rapid emaciation; true scirrhus, on the other hand, may go on increasing for ten years, or more, without

First variety.

Patients will sometimes come to you labouring under ovarian scirrhus, as large as a nine months' uterus; and where scirrhosity alone is the cause of the enlargement, they will generally tell you they have been labouring under the disease for several years, a very essential characteristic. On further inquiry she will add that this tumour, in the early period of its appearance, seemed to lie, as we should have expected, rather in the inferior than in the upper part of the abdomen; and, moreover, that in the earlier stages, when she has examined herself, by laying her hand upon the abdomen, as when lying in bed for example, she has felt the enlargement more on the one side than on the other, though you, perhaps, when you come to examine the intumescence, may not so clearly perceive this lateral inclination. To ascertain this disease with certainty, an examination becomes necessary, in conducting which, you must proceed on the principles prescribed in a former section; but the following particular hints may not be without their use:—Should you examine internally, and find a scirrhosity of the os uteri, or the vagina, you must not hastily infer that the ovaries are free from disease, for they too may be involved in the disease together with the womb. When you examine externally, on placing the woman in the recumbent posture, having lubricated the abdomen you may distinguish the intestines in the upper part of its cavity, by their yielding elasticity, and perhaps by a gurgling under the touch. When, further, you proceed to examine the parts below the epigastrium, you find, that at this part, the abdomen is much more solid and unyielding, and sometimes this hard substance may appear perfectly equable, or nearly so; but in other cases, and perhaps not infrequently, you may distinctly perceive the tuberose, or lumpy feel, which is so frequently the effect of tubercle, and where this tuberose form clearly exists, it is a great help to you in marking the nature of the case. Now, where all these characters concur, and I think, in the majority of cases, you will find them concurrent,—if your patient have a tumour in the abdomen of long standing, lying in the inferior rather than in the superior half of the abdomen, and inclining, in its earlier formation especially, to one or the other side; if, on examination, you find the upper region of the abdomen contains the intestines, to be distinguished by a little tact, while the lower part is large, solid and unyielding; and if, moreover, the abdominal surface, sometimes equable and smooth, should be, as often happens, distinctly tuberose, with such character there can be little doubt that an ovarian scirrhous disease exists, either of one ovary only, or together with the scirrhus of one ovary, a scirrhus also of the tubes, the uterus, and the ovary on the other side.

remarkable functional derangement, and only causing a mechanical obstruction proportionate to its weight and volume, or, at the most, some irregularities of the catamenia, and even these not constantly.—*Boivin and Duges.*

Second variety.

On the other hand, patients will occasionally come to you labouring under the disease in its earlier stages, perhaps, when the tumour is no bigger than the closed hand. In these cases, the enlarging scirrhous ovaries may fall down between the vagina and the rectum, and give rise to symptoms which, if misunderstood, may occasion strange misapprehensions respecting the nature of the disease. There may be a great deal of forcing, aching, and dragging, and a feeling as if the interior parts of the body would come forth; and if you inquire whether the urine may pass or not, you learn that an obstruction exists. The compression of the rectum, too, may be so great, that solid evacuations will scarcely come away. Your patient may also complain of a good deal of numbness in the lower limbs, with weakness, inducing her to lie much on the sofa; and she may have severe pains along the loins and thighs, with a ripping sensation in the course of the nerves, sciatic or crural. If you have once met with this variety of the disease, you will immediately suspect its existence, upon hearing the enumeration of these symptoms: and finding, on examination, a tumour filling the pelvis, with the vagina passing before it, and the rectum behind it, there can be little further doubt that there is an enlargement of the ovary, probably of scirrhous nature, the ovary being interposed between the vagina and the bowel.

Third variety of Ovarian Scirrhus.

Another variety of the disease, and the one which more frequently happens, is that where the tumour is not of a very large size, though so large as to take place above the brim of the pelvis, lodging either to the one or other side in the hollow of the ilium. When this is the case, the patient frequently suffers so little inconvenience, that she does not apply for help at all, until, at length, pain and inflammation are excited, when she is led, by her uneasiness, to consult her medical adviser, telling him, perhaps, that she feels as if the head of a child were lodging in one side of the pelvis. On hearing this, the woman being in the recumbent posture, the bladder evacuated, and the abdominal coverings being thoroughly relaxed, you lay your hand on the abdomen, and then, perhaps, the tumour may be distinctly felt, affording at once, a pretty decisive character to the disease, for in most, though not in all cases, where you have a round firm tumour in the side of the false pelvis, and more especially if tuberose, a scirrhosity of the ovary will be found to exist.

Treatment of scirrhous Ovaria.

In scirrhous ovary, the health is not usually very much impaired, and the patient suffers but little, and, therefore, the less it is interfered with the better. Now and then you will find a good deal of pain about the pelvis; and sometimes there is œdema of the legs, perhaps of one leg more than the other, and this œdema I should rather wish you to notice, because, if you are either incautious or incurious, it might lead you to confound the disease with dropsy of the peritoneum. Very little that is effective can be done in these cases of ovarian scirrhus. The remarks which I made on scirrhus of the womb I would repeat respecting the ovarian scirrhus, namely, that if the tumour has acquired the bulk of the fœtal head, there is no reasonable hope of a dissolution of the scirrhosity, by any medical treatment which you can employ; and, therefore, to make the vain attempt by means of the more violent medicines, is, to say the least of it, exceedingly unwise. To purge excessively, to administer calomel largely, to give conium in injurious doses, to impair the health by a headlong use of the iodine, I should consider to be a very unjustifiable practice. I believe it never happens that a well developed scirrhus of the ovary becomes absorbed, in consequence of the use of any medicine at present known, though I acknowledge myself unable to judge decisively by the iodine. Those who have seen most of this disease, will, I conceive, in this state of our knowledge, confine their medical treatment merely to the palliation of the symptoms to be treated on general principles. If inflammation of the ovary occur, then you must treat it in the same manner as you would treat the inflamed scirrhus of the uterus, by leeches, fomentations, laxatives, diaphoretics, and digitalis, perhaps, in operative quantities, but cautiously; and by putting the patient on the antiphlogistic regimen. Sometimes bleeding from the arm may be proper, though in general, with these diseased abdominal growths, much bleeding is not called for. When the tumour is lodging between the vagina and the rectum, it may then give rise to a great deal of distress by compressing the bladder, the rectum, and the origin of the nerves, the sciatics more especially. The most effectual mode of relieving all these symptoms, is by replacing the tumour, (the bladder being evacuated,) for by a method of procedure very similar to that recommended in cases of retroverted uterus, the ovary may be pushed above the brim. By evacuating the bladder, the operator obtains a full extent of room, particularly if the urine have been allowed to accumulate, and if he can once urge the swelling above the brim of the pelvis, much of the distress may be permanently relieved, because the abdomen above being designed to receive tumours as the enlargements from pregnancy, for example, it is, of course, adapted to the process of dilatation.

Prognosis of Ovarian Scirrhus.

Scirrhus of the ovary you are to look upon as, probably, incurable by known medicines; and I hold it as a sort of axiom, that of women labouring under this disease, those who do least, will do best; but though it is a disease not, on the whole, of malignant nature, the bulk, weight, and pressure, being the principal inconveniences to which it gives rise, yet, however, it does sometimes become a fatal affection; as in those cases, happily not frequent, where inflammations and suppurations occur; and those frequent cases, in which you have scirrhosity and dropsy combined, where dropsy, not the scirrhus, is destroying the patient. It may be added, too, that if a woman is married, the recto-vaginal position of the ovary becomes a cause of considerable danger during parturition, because falling down between the rectum and the vagina, and obstructing the passage of the pelvis, it gives rise to one of the most dangerous obstacles in delivery, often proving fatal both to the mother and child. Indeed, if a patient is known to have one of those tumours, she had better far remain in the unimpregnated state; for pregnancy would, perhaps, cost the woman her life, unless miscarriage could be ensured.

Removal of the Scirrhus.

I sometimes hear my friends talking about removing the scirrhous ovary by a scalpel, a practice to which, in the present state of information, I should not myself assent. If the scirrhus is doing no urgent mischief to the patient, then you had better wait; but if there be fever and inflammation, the high probability is, that the parts will contract adhesions with the surrounding viscera, which may make it difficult to remove the ovary, add to which, where you have a scirrhus of the ovary, it may be so firmly imbedded in the pelvis on the one side or the other, as to make the removal of it impracticable, or, at all events, a work of considerable difficulty and danger, not to add, that the disease may not be confined to one ovary only, but may extend itself into the other.

Morbid Anatomy.

The morbid anatomy of the scirrhous ovary, and more especially that part of it which relates to the extension of the disease into the contiguous viscera, and to the nature, extent, and vascularity of the attachments, is well deserving of further investigation. So long as it is believed that the removal of these diseased parts, under any circumstances, is unjustifiable and hopeless, so long these inquiries may be looked upon as of speculative interest, rather than of practical importance; but if an expectation may be reasonably cherished, of improving our abdominal surgery, so as to render the

extirpation of these parts upon the whole successful, in well-selected cases, and to enable us at the bedside to discriminate the individual scirrhosities in which success is to be expected, then it must be evident that the breadth, the vascularity, the nature of the attachments, the degree in which the disease may spread into the other parts of the body, together with the average frequency of these circumstances, may all of them be looked upon as of no small interest, even in the mere practice of our art, and I would, therefore, invite attention to the inquiry. As the disease is not of uncommon occurrence, all the necessary information might, I conceive, be obtained in a short compass of time, provided the men of leisure or activity in the profession would favour us with their communications through the intervention of our periodical works. An account of dissections, drawn up in a view to these points, if brief and discriminating, would not occupy much space; by confining the communications to some two or three leading publications, they would be brought together under the mind of the same readers, and their juxta-position would probably give no small addition to their value.

SECTION XXVII.

DROPSY OF THE OVARY.[1]

As water may accumulate in the peritoneum, so also it sometimes collects in the ovarian vesicles,—when the disease is termed *ovarian dropsy*,—those small vesicles with which the ovary is filled, and which constitute the *ova* of the human species.

Quantity of fluid secreted.

In the early stage of the disease the vesicles contain but little fluid, only a few drops, or drachms, or ounces; but the disease proceeding, at length pints, and quarts and gallons, and larger measures,

[1] The appellation "dropsy of the ovary" is not proper, for the affection is not dependent on an increased effusion of a natural serous secretion or exhalation, but is of the nature of what has, perhaps not very properly, been called "cystic sarcoma," and consists in a peculiar change of structure, and the formation of many cysts, containing sometimes watery, but generally viscid fluid, and having cellular, fibrous, or indurated substance interposed between them. Le Dran says that ovarian dropsy always begins with a scirrhus, and is only a symptom of it; Dr. Hunter, on the contrary, says he never found any part of a dropsical ovary in a truly scirrhous state, and he is right.—*Dr. Burns' Principles*, 8th Edit. p. 135.

may accumulate, and the ovary may become of a size enormously large.[1]

Situation of the secreted fluid.

In several cysts the accumulation may take place, and in all the cysts pretty equally, or the dropsy may be seated in one cyst only, as the principal, though it almost always happens that other cysts are more or less filled; it may be some few ounces only, while the principal cyst contains many gallons.[2] It may be observed further, that where this dropsy consists of an accumulation of water in several cysts, it sometimes happens that the cysts are in communication with each other, so that the water flows out of the one into the other. The late Mr. Cline used to exhibit a preparation of this sort, observing that, if you tapped one of the cysts in this state of the parts, you would, of consequence, empty all the rest at the same time. Mr. Cline's preparation is the only case which it has been my lot to witness, but in many-cysted ovarian dropsy, it far more frequently happens (in nine cases out of ten at least, and, probably, in a larger proportion) that the cells are not in communication with each other, so that the tapping of one cyst produces a partial relief only.

Anatomy of the Ovarian cysts.

In dropsy of the ovary, the inner surface is not always equable, but is now and then covered with those excrescences which have, by Burns, been compared to the cotyledons in the uteri of the ruminating animals; and I would the rather notice this, because we have been advised to excite the adhesive inflammation, so as to occasion a cohesion of the sides of the cysts to each other, and these irregularities must throw in our way an impediment to such a practice. In the anatomy of ovarian dropsy, it is important, too, to recollect that the cysts vary considerably in the thickness of their sides; sometimes we find them no thicker than a piece of brown paper, and sometimes, as when scirrhus concurs with dropsy, their thickness may equal or exceed that of the hand, a peculiarity of structure which must materially obstruct the operation of tapping.

Variety in the nature of encysted accumulations.

When the enlargement of the ovary is cystic, there may be real variety in the nature and consistency of its contents. It may be

[1] To the late Dr. Cox, a zealous and very diligent inquirer, and a great loss to surgery, I am indebted for a valuable specimen of an ovary capable of containing several gallons of fluid.—*Dr. Blundell.*

[2] In some instances the whole tumefaction has been composed of hydatids not larger than grapes.—*Dr. Denman.*

fluid, viscid, or firm, like water, treacle, or conserve—a difference of no small importance in relation to the operation of tapping. Nor ought you to be led away with a notion that, in the first tappings the accumulation will be watery, becoming more viscid as these tappings are repeated; for, in more than one instance, I have myself found viscus in ovaries which have never been tapped at all; nor is the occurrence by any means infrequent.[1] Add to this, that, in many-cysted enlargements, there may be much difference in the consistency of the contents of the different receptacles in the same ovary, nor, with the exclusion of tapping, do I know of any diagnostic by which the consistency of the accumulation may be determined, excepting that which is taken from fluctuation; for although, when the fluctuation is obscure, we must not hastily infer that the contents of the swelling are not aqueous, we may safely conclude that they are of this consistency, when the undulation is found to be lively and distinct.

Extensive adhesions after repeated tappings.

When a patient has been tapped frequently under this disease, I strongly suspect that extensive adhesions to the parts adjacent will be by no means infrequent; but if the disease have been unattended with much inflammation, it does certainly sometimes happen that the adhesions of the enlarged ovary are very slight, so that the whole mass may be taken away.[2] Therefore, when any of you may be hereafter dissecting an hydropic ovary, I would recommend you, in a view to extirpation, to observe how far the adhesions are of frequent occurrence; and where they do occur, whether they are circumscribed, or of extensive kind, and what are the symptoms which precede or accompany them, and which indicate their existence.

Ovarian disease not always simple.

In dropsy of the ovary, the disease is not always simple; with ovarian dropsy, scirrhus may be combined, whether this be seated in the ovary itself, or in the uterus; the combination of scirrhus and dropsy, in the same ovary, being by no means uncommon; add to which, that when the ovary on one side is affected with dropsy, the ovary on the other side may be affected with dropsy too.

[1] Accumulations of blood and of pure pus have been found in this organ. *Boivin and Duges.* In Dr. Taylor's case, a large abscess is supposed to have been formed in the ovarium.—*Quar. Jour.* July, 1826.

[2] I have in my collection an immense ovary, probably the largest preserved in any museum. Setting aside its healthy connection with the side of the pelvis, it was bound to the adjacent parts by one adhesion only, a part not bigger than two of my fingers, and which could have been easily cut through, the whole of the enormous ovary, excepting these two parts, being perfectly detached.—*Dr. Blundell.*

Symptoms of Ovarian Dropsy of long standing.

When a woman labours under dropsy of the ovary of long standing and of great size, she tells you, perhaps, that she has been ill for months or years together. On examining the abdomen, you find that it fluctuates—if the cysts be thick, obscurely—if thin, as distinctly as in ascites, or a dropsy of the uterus, or an accumulation of water in the bladder, and therefore you must be on your guard. Further: On making inquiry you learn that the tumour is lying more on one side of the pelvis than the other, (a great characteristic of the disease;) and unless, indeed, the tumour be large enough to fill the whole cavity, you find, moreover, that it occupies the inferior and middle, rather than the superior, part of the abdomen; and now and then, indeed not uncommonly, the surface of the cyst is tuberose. Now, on examination, if you find an abdominal tumour of tuberose surface, or even of a round and equable, or if you find that the tumour inclines to the one or the other side of the abdomen, and that it fluctuates more or less distinctly, and has been somewhat rapid in its growth, there can be but little doubt that the affection is a dropsy of the ovary, pure or combined with scirrhus. Rapid growth, when it occurs, is an excellent diagnostic; for though slow growth is no certain disproof of encysted accumulation, we may be almost certain that the ovary is enlarged from dropsy, scirrho-dropsy, or, at all events, an encysted accumulation of one kind or another, if the growth have taken place in the course of a few months.

Symptoms of Ovarian Dropsy of earlier formation.

When patients labour under ovarian dropsy of earlier formation, the whole ovary not being bigger than a child's head, as in the case of scirrhus, the tumour may fall down between the vagina and the rectum. In these cases symptoms similar to those before enumerated may be produced; and on examining with care you find a swelling which fills the pelvis, with the vagina in front, and the rectum behind, and a certain character of fluctuation obvious enough, if the ovary be thin; so that there are three characteristics by which the recto-vaginal dropsy of the ovary may be known: a tumour within the cavity of the pelvis, with the vagina in front, and the rectum posteriorly; a fluctuation more or less palpable, and an assemblage of symptoms more numerous in some cases, of smaller number in others, but most of them referable to irritation, obstruction, and compression of the viscera within the pelvis. In ovarian dropsy, of earlier formation, however, the enlarged ovary generally lies above the brim, and there, in the iliac fossa, to the right or left, it may usually be found forming a tumour, not inaptly compared to the fœtal head, of tuberose surface, or equable. A dropsy of this kind it may not be so easy to distinguish as the preceding, as the

fluctuation may not be demonstrable through the abdominal coverings. Nothing, however, is easier, than to ascertain that the ovary is enlarged, and if at the end of a few months there be a great increasement of bulk, we may be pretty certain that the enlargement is from effusion, whether watery, viscid, puriform, or of other character.

General health of the patient.

In ovarian accumulation the general health of the patient is not infrequently good, especially in the middle or earlier period of the disease; the woman sometimes becoming much reduced in the latter period, and suffering much from cachexia. In some cases, the quantity of the urine secreted may be considerably diminished, though a pretty free secretion is by no means uncommon. So also in dropsy of the ovary, as in scirrhus, there may be an œdematous swelling of the legs, or of one leg more than the other; and care must be taken that this do not lead you to suppose that the woman labours under *anasarca.* The œdema seems to be the result of pressure on the vessels above, and this is, perhaps, the reason why one side swells more than the other, namely, that side on which the tumour is principally seated. Women once tapped, often fill rapidly afterwards,[1] but the first growth of ovarian dropsy occupies very different periods, varying from months to years, for I have reason to believe that large collections of water may take place in the course of a few months only, and, in the latter case, the general health is more likely to suffer.

SECTION XXVIII.

TREATMENT OF OVARIAN DROPSY.

The treatment of ovarian dropsy may be divided, I think, into three kinds, viz. that which is proper in the way of palliating the affection; that, again, which is proper, with a view of radically curing the disease; and that which is required, if, indeed, any be required, where the cure of the disease is taking place spontaneously, for such cures do now and then occur.

[1] Morand drew off four hundred and twenty-seven pints within ten months. *Mem. de l'Acad. de Chir.* ii. p. 448.

Martineau drew off four hundred and ninety-five pints within a year; and from the same patient six thousand six hundred and thirty-one pints, by *eighty** operations within twenty-five years.—*Phil. Trans.* 1784. p. 471.

* 10 gallons two quarts each operation ! ?

Palliative measures.

In medicine, I believe, we have no effectual means of palliating these encysted accumulations, and I should say, that in general, those will do best, who rely on palliatives the least. So also dropsy of the ovary cannot be cured, in the general, by diuretics, cathartics, emetics, mercurial action or the like; and, therefore, you ought to be very cautious how you have recourse to any of these means, at least with violence, lest you should leave the patient in a worse condition than you found her. I will not venture to say you are not justifiable in making gentle attempts with these remedies, but experience shows, that from these medicines so little good is to be obtained, that, in attempts like these, the constitution ought not to be injured. The most effectual means of palliating the disease is by tapping, and, in the ordinary modes of practice, even this is to be delayed as long as may be, for if a woman is once tapped, she often fills very rapidly again; it may be years before she requires the first tapping, but she may require to be tapped the second time, in the course of a few days or weeks, or at the most, of a few months, so that if we operate injudiciously, we are making bad worse.[1] In performing the operation of tapping, where, it seems, from the large bulk of the tumour, to be absolutely necessary, I would recommend you in all cases to be careful to know whether the woman is pregnant, and whether the tumour arise from the retention of urine; for great scandal has arisen to our profession, from neglecting inquiries of this kind. A distended bladder has been mistaken for ovarian dropsy, nay, the uterus itself has been tapped when the woman has been pregnant. In dropsy of the ovum, more especially, it does not follow, because you have once tapped a woman for ovarian dropsy, that, therefore, a second time the operation is to be performed, without previously inquiring whether the uterus or the bladder be full; for when the second tapping is proposed, the supposed ovarian dropsy may, in reality, be an enlargement of the womb or bladder. In all cases where circumstances lead you to suspect that there may be an accumulation of water in the bladder, the introduction of a catheter will give the diagnostic; and, in every instance, when the uterus is suspected, let a careful examination be instituted per vaginam. You should remember, also, where you are thinking of the operation, that the water is sometimes collected in several cysts, and that those cysts are not always, nor indeed, generally, in communication with each other; but whether communicating or separate, these cysts are more especially to be looked for, provided the tumour in the abdomen have a tuberose surface. Hydatids too, may, I believe, form in the ovary, but the disease is

[1] Dr. Good had a lady under his care for six or seven years, who required tapping to be performed at first every six months, afterwards every three months, and at length every month, or six weeks.—*Study of Medicine.*

rare. When, therefore, from the form of the tumour, many cysts are suspected, it is proper to mention to the friends, though not to the patient herself, that there is a chance of your not being able to empty the ovary completely, so that disappointment may be prevented. Again, in many cases where the ovary is hydropic, the cyst may be very thin, and tapped as easily as the common integument; but, when about to perform this operation, remember, that sometimes the front of the ovary is thick, and that if you do not push the instrument far enough, on withdrawing the trocar, you are surprised to find that not a drop of water is coming away, and this though you know the case to be dropsical: whereas if the trocar is pushed farther, the water will flow readily enough; cases of this kind are not, on the whole, very uncommon, and they not only occasion more difficulty in tapping, but there is the more risk of a dangerous inflammation, provided the instrument is pushed through a good deal of diseased substance. All this should be well weighed before you operate; indeed, in cases of scirrho-dropsy, it may, I suspect, be better not to operate at all. When a woman has been tapped often, it is said, that, after every operation, the fluid which issues may become thicker and thicker; thick as soap suds, thick as treacle, or of denser consistency than this; but though this may be true, you are not to suppose that it is only after repeated tappings that these thickenings occur; for, as before observed, the contents of the ovary may be viscid from the very first, and this becomes very probable, provided you find that the fluctuation is very obscure.[1]

When you are going to tap, let it be further remembered that, after all your best care, inflammation of the cyst may occur, slight, or in that degree which may carry off the patient.[2] When a woman is tapped, she may sink in a few days from symptoms of exhaustion, —symptoms very similar to those arising from floodings or cholera

[1] I remember once seeing a woman in the east of the town, labouring under a dropsy of this kind, for which tapping was recommended. On seeing this woman I told the friends that the contents of the ovary were probably viscid; for, though the growth had been rapid the fluctuation was obscure; nor did I regret this cautionary opinion, for when the ovary was tapped, there came away enough to show that encysted accumulation existed; but still the discharge was sparing, viscid, and the tumour remained unreduced. Mr. Abernethy afterwards saw this case, when the urgency of the distention led the attendant to operate again, with as little benefit as before; on observing this, Mr. Abernethy prudently dissuaded from further attempts, observing, as I was informed, that it would not do to go on boring holes in the belly, *agnosco hominem*, and ultimately the patient died.—*Dr. Blundell.*

[2] The late Mr. Chevalier once had occasion to tap an ovary containing seventeen gallons; in this case it was thought prcper to proceed with caution, and the water was drawn off, not all at once. for this sudden collapse would have been dangerous, but at three or four different times, yet notwithstanding the prudent manner in which the operator proceeded, extensive inflammation of the cyst ensued, and the woman died hectic, at the end of a few weeks, with one or two gallons of puriform matter in the cyst. It is remarkable that no inflammatory tenderness accompanied this attack.—*Dr. Blundell.*

morbus. And this, I suppose, more frequently happens when the ovary fills again very rapidly, say in the course of a few weeks; instances of which I have myself seen. Some women sink in this manner after the first tapping, or thus many sink gradually after they have been tapped some five or six times, which may, perhaps, be an average number; in a few rare cases they may live to be tapped much oftener, and, indeed, there are cases which you should treat with peculiar attention, in which the constitution seems to suffer but very little, and where the woman may be tapped a surprising number of times, very great quantities of fluid being taken away, and the general health and spirits flagging but little in consequence.[1] Although women do live now and then to undergo these frequent tappings, yet they more generally sink; and hence, in ordinary practice, the longer the first tapping can be delayed the better, for there is nothing more unwise than to ground your general practice upon the exception to the rule, though the error is not infrequently committed. Tapping after all is but an unsatisfactory remedy; in scirrho-dropsy it is dangerous, in dropsy with many cysts it is of partial relief; when the encysted accumulation is viscid it is of no effect, and even in cases the most favourable, tapping exposes the patient to inflammation, adhesions, suppurations, exhaustions, repetitions, and death.

SECTION XXIX.

RADICAL CURE OF OVARIAN DROPSY.

Under ovarian dropsy, most women sink at last, and this reflection it is which leads me to consider whether any thing can be done for the radical cure of this fatal and not infrequent disease.

Extensive wounds in the Abdomen not necessarily fatal.

I formerly published a paper[2] on the subject of abdominal surgery, in which I have put together the principal facts which were then come to my knowledge, all concurring to prove that it is possible to lay open the abdomen more or less extensively, not without danger, for this I would never assert, publicly or in private, but

[1] A lady was tapped by Portal, eight-and-twenty times; and in a case related by Ford, the patient was tapped forty-nine times, 2649 pints being taken from her; by the late Mr. Martineau, of Norwich, a woman, as before observed, was tapped eighty times, and from her thirty hogsheads were extracted.—*Dr. Blundell.*

[2] See Physiological and Pathological Researches, by James Blundell, M. D.

without necessarily destroying life in the way that some of our established surgeons seemed to imagine. This principle, moreover, has now received further corroboration from additional observations on the human body, in cases where the abdomen has been laid open, more or less extensively, and where the patients have not died. A case occurred in which Mr. Lizars, an able and intrepid surgeon of Edinburgh, operated upon a woman[1] on the other side of the Tweed, removing from her a dropsical and scirrhous ovary, of which he has given drawings. In this operation he laid open the abdomen from the ensiform cartilage to the christa of the pubis, the woman completely recovering afterwards; and this case I state in place of many, as an interesting illustration of the general principle—I mean, *that it does not necessarily follow, because there are extensive wounds in the abdomen, that death must ensue.* Neither is this the only instance in which Mr. Lizars has laid open the abdominal cavity to a considerable extent, the patient surviving notwithstanding.

Removal of the Ovarian cyst.

To lay open the abdomen, therefore, not being of necessity, nor perhaps, generally, fatal, it becomes important to consider whether, in a desperate disease like dropsy of the ovary, we may not divide the coverings, and remove the cyst, more especially after we have reduced the size of the tumour by a previous abstraction of the water? Now in some few cases,[2] I have no doubt that this operation might be performed with success; but I wish to state it, as my own opinion, that those cases are few, and require selection; otherwise, if you go to work at random, you may inflict these extensive wounds upon the abdomen, and may find, after all, that the diseased mass cannot be taken away. In this, as in all other capital operations, we must, of course, consider whether the system is favourable for the use of the scalpel, nor must other points be neglected—some of the more important of which I will mention. When you are thinking of extirpating the ovary, let it be recollected that sometimes the ovary is not alone the seat of the disease, for the womb, the ovary on the opposite side, and the vagina, too, may be affected, the two first not uncommonly; and if you have reason to suspect that other parts are involved, such cases, in the present

[1] This woman came up from the north, and remained a considerable time at my own house: when I took occasion to present her to my professional friends, who made their own inquiries respecting the circumstances of the operation and its results, and had an opportunity of inspecting the scar.—*Dr. Blundell.*

[2] Dr. Nathan Smith, of America, is said to have performed this operation successfully. *Edinb. Journ. Oct.* 1822.

De Haen regards extirpation of the ovarium as doubtful. *Rat. Med.* p. iv. c. iii. § 3. Morgagni asserts it to be impossible.—*De Sed. et Caus. Morb.* Ep. xxxviii.

state of knowledge, may be regarded as very unfavourable for operation. It is to be recollected, also, when you are thinking of this operation, that the cyst may have formed extensive adhesions, and that these adhesions may foil you. If the adhesions do not exist, or if they are slight, and may be broken easily, then, indeed, the cyst may be readily drawn forth and abstracted; but should it so happen that the adhesions are extensive, it would, I conceive, be impossible (so far as we know at present) to extirpate the cyst with that degree of safety without which the operation would be unjustifiable. It is, too, to be remembered, that when the dropsy chances to be associated with scirrhus, the basis of the ovary may become broad and large, and its removal may become proportionally difficult—a large internal wound remaining in the abdomen, unless the means of contracting it can be devised, the danger of the operation must be greatly increased of consequence. Nor must we forget, when thinking of this operation, that much importance attaches to the bulk of the tumour: if the tumour is very large, I will not say that you ought not to remove it, provided you can take the whole away; indeed, the dexterity and intrepidity of Mr. Lizars seem to have set the point at rest; but in the present state of our knowledge, I think it must be admitted that the tumours the most favourable for extirpation, are those which contain only a few quarts. Again, before we determine respecting the extirpation of the dropsical ovary, it becomes us to weigh against each other the danger of the operation, and the danger of the disease. Ovarian dropsy is generally fatal, it is true, but not always, nor immediately;[1] it may enlarge slowly, it may bear repeated tappings; this more especially, if the general health is not much impaired. As the extirpation of the ovarian cyst must, of necessity, in the present state of surgery, be an operation of great danger, it ought, I conceive, to be reserved for those cases only in which the enlargement is in rapid progress, and the health is decidedly on the decline. In obstetrics, every where, to intermeddle is bad; in obstetrics, on all occasions, our operations are an evil; and hence in this, as in every other case, it becomes us to ponder duly, whether the remedy or the malady is to be regarded with the greater apprehension.

Diagnosis before the operation.

When an extirpation of the ovary is under consideration, it behoves us to ascertain, clearly, whether ovarian enlargement really exist, and to decide, moreover, whether the enlargement is, on the main, of the encysted kind, or a combination of dropsy, with a massy scirrhus. Now, in many instances, the disease is so obvious, that the merest novice may detect it; but in some it is so obscure, that much and careful investigation is required; nor is it, I con-

[1] Mr. Martineau's patient laboured under the accumulation of fluid twenty-five years.—*Phil. Trans.* 1784, p. 471.

ceive, too much to assert, that of practitioners the obstetricians alone are the best judges of this, nor certainly are even these to be depended on, unless they possess the requisite knowledge, dexterity, and experience. I have heard of a case in which, on laying open the abdomen, no tumour could be found; cases, and repeatedly, I have seen in which the inflation of the intestines has been mistaken for an hydropic ovary; these, however, be it remembered, are in most, if not all instances, the mistakes not of the art but of the artist—the mistakes of those who are negligent, or of those who are as yet inexperienced in this part of practice. When, with a view to extirpation, we have to decide respecting the condition of the ovary, it will be of no small help to us to tap the ovary first, making our observations afterwards through the abdominal coverings; for myself, I have now been repeatedly called on to make observations of this kind, and from all that I have been able to observe, I should infer, that they may be instituted with facility. So that, to sum up our observations on this important point, if we have reason to believe that the system is favourable for operation, and that the patient must soon perish if nothing be done—that enlargement of the ovary really exists beyond all doubt, and that there is no grave disease in the parts contiguous to the ovary, or no disease which may not be removed—that the ovary is wholly detached from the adjacent viscera, or in good measure, and that it is not affected with a massy scirrhus, likely to rise to a broad basis—we may be justified in operating, provided it be the wish of the patient; but where these conditions are wanting, it may be better to abstain. If women have been tapped often, or if they have suffered much inflammatory pain in the ovary during the progress of the enlargement, the case will, I fear, be found very unfavourable for our operations, as adhesions are very probable.

Removal of a circular piece of the cyst.

I have sometimes thought, that in ovarian dropsy of single cyst, and with encysted accumulation of aqueous consistency, a considerable palliation might, in some cases, be obtained, by merely cutting out a piece of the cyst, so as to enable it to evacuate its contents into the peritoneal sac. Suppose I could not extirpate the ovary, provided I found the vessels were not large, I could easily remove a small piece of it, say to the extent of a crown piece, and after this there might be a reasonable hope that this aperture would not close up again,[1] but that the fluid would be effused through it, so as to come under the operation of the peritoneal absorbents, with the prospect of an occasional cure. A lady, the subject of ovarian dropsy, was advised to improve her general health, and in this view

[1] Some cases are related by Le Dran, M. Voison, Portal, and Dr. Houston, in which a *fistulous aperture* remaining after opening the cysts, the patients were perfectly cured.—Ed.

occasionally took the air in an open vehicle. In one of these excursions she was thrown from the carriage, and fell upon a large stone on the side of the road. She was taken up, carried home, suffered a large discharge of water through the kidneys, and was entirely freed from her ovarian dropsy. Cured as she was of this disease, she married, and, in the earlier months of pregnancy, she died of a retroversion of the uterus, which could not be replaced. Upon a post-mortem examination, it was found, that she had laboured under an ovarian dropsy; that the cyst had been burst, and had discharged itself into the peritoneal sac, and that the inflammation had produced such a change that no further effusion had taken place; or, if any, that on entering the peritoneum, the fluid was absorbed.

Very early evacuation of the Ovary.

There is yet another practice, which may be *thought of* in these distressing cases, and this consists in the very early evacuation of the ovary, for though, in ordinary practice, we ought to delay the tapping as much as possible, yet it may hereafter be worth consideration, whether early tapping before a large cyst is formed might not have its advantages, performed with all due caution, and all the necessary knowledge. Why is it that the abdomen fills so slowly in the first instance? Perhaps the first growth of the dropsy may occupy six or seven months, or even six or seven years; but if you tap a woman with an ovary of large size, in the course of three, four, five, or six weeks, she may require the operation again.[1] Now there are, as it appears to me, two principal causes to which the slow filling may be attributed—one, the pressure on the exhalant vessels, and the other the small extent of ovarian surface in the commencement of the disease; for its superficies at first may be of a few square inches only; but a large ovary, recently tapped, may present a surface of many square feet. Now the wide extent of ovarian surface, and the removal of pressure from the exhalant vessels, may, after a first tapping, give rise to a rapid effusion; and hence, if in cases of hydropic ovary we could always tap, when the tumour is no larger than a child's head, we should, perhaps, have to tap it often, but the patient might not suffer so much, as if the ovary were allowed to grow to a great size. But how can this be done? Why, if the tumour be lying between the vagina and

[1] The quantity of fluid which is secreted after repeated tappings, is, in many instances, enormous. Mr. Ford tapped a patient *forty-nine* times, and drew off 2786 pints. The secretion was at length so rapid, that three pints and three ounces were accumulated daily.—*Med. Comm.* ii. p. 123.

Mr. Martineau tapped his patient *eighty* times, and drew off 6831 pints, or *thirteen hogsheads;* and at one operation, no less was drawn off than 108 pints.—*Phil. Trans.* lxxiv. p. 471.

There is a case mentioned by Bonetus, where even 112 pints were drawn off.—*Dr. Jewel, Lond. Pract. Med.* 6th Edit. p. 59.

rectum, I think we might easily accomplish it; nor, supposing our knowledge to be sufficient, and our caution great, would it, perhaps, be impracticable to effect all this, even when the tumour lay above the brim of the pelvis, in the hollow of the ilium. For this purpose, might not an opening be made in the abdominal covering, large enough to admit the fore-finger, like a canula, and might not the point of the finger be placed upon the surface of the ovary, so as to ascertain that no intestine was interposed, and then, when sure that the intestines and bladder were not interposed, might we not pass a very small trocar through the opening, and into the ovary, so as to evacuate the contents in the very commencement of the disease. Understand, however, clearly, that it is not here my design to recommend this operation at present; I throw it out as a hint merely, for further consideration. In rash hands, such an operation might produce fatal consequences. In cases ill chosen, it might be at once dangerous, and of no use; yet, after all, perhaps, it may admit of improvement; and in a disease so frequent and so fatal as the ovarian dropsy, every hint which promises to give greater efficacy to our treatment, may deserve from us that unwearied and pertinacious consideration, without which, in these perplexing and very deplorable cases, nothing effective can be accomplished.

Recapitulation.

Here, then, are the different modes of treatment recommended in ovarian dropsy—the abstraction of the water, with the cautions before prescribed—the extirpation of the ovary in the earlier and in the later periods of its growth—the removal of a circular piece of the cyst, so as to lay open the cyst into the peritoneum—and the prevention of the dilatation and growth, by early paracentesis. In the present ill success of our practice, all these operations are well worth your consideration; and if you can bring one of them to such perfection as to cure some of the many unhappy individuals who now fall victims to the disease, you will, indeed, be conferring an invaluable good on the fairest and least offending part of our species.

Spontaneous cure of Ovarian Dropsy.

The spontaneous cure of ovarian dropsy is rather deserving of our attention, as it may be supposed to contain within it the principle of an effectual remedy for this disease. I have already observed that by accidental rupture of the cyst, a cure may be obtained, when no other known remedy will remove it. The lady who fell from the chaise, and whose case has just been narrated, was effectually relieved by rupture of the ovary. A woman at New York, attended by a practitioner well known to my friend Mr. Gaitskell, happening to suffer a severe fall, (for women are very liable to this

accident when the abdomen is large) she ruptured the cyst, and recovered, at least for some time. From these and other instances[1] a question arises whether there are no means that we could employ occasionally to burst open the ovary by pressure, however applied; nor is it unreasonable to suppose that, in some cases, if the substance of the ovary were thin, it might be ruptured, though to suggest the means of effecting this is no easy task.

There is yet a second mode in which this disease may relieve itself more or less effectually, and that is by spontaneous opening into the intestines. When I was attending the wards of this hospital, a woman, of the name of Myers, came here with an exceedingly large abdomen; this enlargement was occasional, and the woman got better, repeatedly, after large spontaneous eruptions of water by vomiting and purging. Now I have no doubt that in this case the dropsy was ovarian, and in all probability the cyst occasionally opened into the intestines by ulceration or rupture, a sort of natural tapping being performed.[2]

It is said, too, that the ovarian dropsy has sometimes disappeared spontaneously, without any obvious cause to which the disappearance of the disease could be attributed. The patient, very large for a while, has, at length, been agreeably surprised to find that she became less and less, week after week, till at length she has shrunk away to her healthy dimensions. Now, some of these cases, I fear, have not been dropsy of the ovary at all; they may have been dropsy of the peritoneal sac, or mere intestinal inflations; but Burns has referred us to cases in which it seems uncandid to doubt the fact, provided the veracity of the author can be relied upon. In these cases, it has been said that the water has been removed by the absorbent action of the lymphatics of the cyst; but I think it more probable that the cyst has been of membranaceous kind, and that laceration and effusion into the peritoneum has been the real cause of the cure.

[1] A well-known surgical lecturer, as I have been told by one of his pupils, relates a case which he conceived to be dropsy, and which he imagines to have been removed by mere absorption, excited by mental perturbation, but which I look upon to have been nothing more than ovarian accumulation, cured by rupture of the cyst. In this case (as he tells the tale) an old lady passing over London bridge, alarmed by the cry of "mad bull" made the best of her way into one of the recesses on the bridge, and jumped hastily on to one of the benches; the bull passed; she descended, her alarm continued; she got home, a free secretion followed, and the dropsy disappeared. Of this case, it may be said, that the mind was exceedingly disturbed, and that the absorbents were excited in consequence; but I think it far more reasonable to presume that the substance of the cyst was very thin, and that by leaping on the bench in the recess, a rupture was produced.—*Dr. Blundell.*

[2] See also Dr. Denman's interesting case, in which the stools almost wholly consisted of a gelatinous fluid, with many streaks of blood, and with little or no mixture of fæces.—*Intro. Med.* 7th Edit. p. 82.

Conclusion.

In concluding my observations on ovarian dropsy, let me add the following miscellaneous remarks:—A flat trocar and canula diminish much the pain of paracentesis. Adhesions of the cyst to the abdominal coverings are, I believe, frequently indicated by soreness felt after moving the abdominal coverings over the cyst, and by a sort of crepitus, sometimes very distinct, arising, probably, from ruptured, adhesive fibres: of course the less there is of this disturbance the better. With ovarian dropsy a peritoneal accumulation, to the amount of two or three gallons, sometimes occurs. The pressure of the ovary is apt to occasion an overcharge of the intestines, to be relieved by cathartics, and by laxative injections into the bowel. On dissection, I have observed feculent accumulations, in quantity far greater than had been suspected during life, and these may occur though the bowels act every other day. Be careful not to confound the large masses of the loaded bowel with those tuberose enlargements of the ovary which are the result of dropsy or of scirrhus. The encysted matter in the ovary sometimes becomes more attenuated as tapping proceeds. In the twentieth operation, I have found this matter of more aqueous consistency than in the first. Sometimes, on tapping the dropsical ovary, large quantities of pus, or of some puriform substance, are discharged, especially, I suspect, if inflammatory symptoms have preceded. Inflammation of the diseased mass, after tapping, is always to be regarded with apprehension; it may destroy suddenly, or by hectic cachexia; yet we are sometimes surprised to observe how little the constitution sympathises with the inflamed part—the inflammation of this diseased mass, and the peritonitis of puerperal, exert, indeed, very different effects upon the constitution. It is said that ovarian dropsy has been known to disappear after electrification. In so forlorn a case, the remedy may be worth trial, but my faith is weak. Astringent injections into the cyst are, I believe, highly dangerous; but this opinion may require revision. General inflammation of the cyst in hydrocele, as I learn from an eminent surgeon, and a very excellent man, Mr. Green, may suppress further effusion, even where adhesions fail. The cases before narrated, seem to prove that the same change may be produced by inflammation in the effusive surface of the ovarian cyst; and I would fain persuade myself, that hereafter we may be able to produce this inflammation at pleasure, by means, on the whole, tolerably safe. Stimulant injections, and a canula, or something analogous left in the wound, have been tried, but hitherto, I believe, with *the worst success*—beware, therefore. In Mr. Chevalier's case, gallons of matter were produced by adhesive inflammation. Would the patient have recovered had this been drawn off by tapping? I suppose not; for when the ovary has suppurated, and the matter has escaped spontaneously, death has, at least sometimes, ensued. The existence of

more than one cyst in most ovarian dropsies, is a great bar to this method of cure. Dropsy of the tuberose kind is very unfavourable for the trocar, and in these cases more especially, tapping ought, I presume, to be delayed to the last; it is the *remedium anceps potius quam nullum*. Extensive adhesions may exist, although a woman have never been tapped, but I suspect that repeated tappings tend to produce such adhesions.

Other diseases, and not without their interest, sometimes assail the ovary; but of these I shall speak hereafter. Inflammation more or less acute, suppuration, connected or not with the puerperal state, enlargements of the ovary, with formations of hair, bones, teeth, extra-uterine gestation, scrofula, spongoid tumour, sebaceous and other substances, may all occur; and the fallopian tubes may be dropsical,[1] scirrhous, affected with extra-uterine gestation, and so on; but the principles here laid down will, I conceive, with a little modification, apply also to these cases, so far as they admit of remedy. Extra-uterine[2] gestation has been considered already; ovarian inflammation will be considered hereafter; the rest may be dismissed without further remark. In elementary instruction, too much minuteness bewilders;—

Ὁ Βίος βραχὺς, ἡ δὲ τέχνη μακρὴ.

SECTION XXX.

POLYPUS OF THE UTERUS.

The *carcinoma* of the uterus, to be described in a future section, is a disease by no means infrequent in its occurrence; but polypus, a much more manageable affection, is not so often met with. It is, however, of great importance, that this disease should be thoroughly understood, because, where it occurs, especially if the polypus grow in the higher parts of the genital cavity, in the neck of the uterus, or in its body, very dangerous symptoms may ultimately be produced, and the patient may sink, though where the complaint is

[1] The quantity of fluid collected is for the most part larger than in the ovarium. Münck mentions a case in which the distended tube contained one hundred and ten pints of fluid.—*Apud. Mang.* Harder, one in which the fluid measured one hundred and forty pints.—*Apiar. Obs.* 87, 88. Cypriani, another that afforded one hundred and fifty pints at a single tapping. —*Epist. Hist. exhib. fat. hum. ex Tubâ excisi.* 1700. The causes and progress as well as general mode of treatment are those of dropsy of the ovary. Its chief distinctive symptom is the elongated line which the swelling assumes, and the direction it takes towards the iliac region on the one side or on the other.—*Good's Study of Med.* iv. p. 416.

[2] Principles and Practice of Obstetricy, p. 710

once thoroughly comprehended, it may, in general, be promptly removed.

Characters of the Polypus.

In this disease you find growing a tumour, more or less round, firm, hard, ***insensible***, smooth generally, sometimes efflorescent upon the surface, covered by the inner membrane of the womb or vagina, and connected with the genitals by a small part, differing in its proportion to the body of the growth. Very various is the size of polypus; at first not bigger than a pea, then becoming as large as a fist, as the fœtal head, as the body of a fœtus, and larger than this, where it is unwisely suffered to continue.[1] If the shank of the polypus be small, say not bigger than the little finger, the body may be of great bulk; or you may have a bulky shank, as large as the wrist, though the body of the tumour does not grow in proportion. In the general, the genitals are sound where this growth appears, but other affections may occur with it, and which must not be forgotten; generally, there is prolapsus of the uterus, sometimes there is inversion, sometimes there is scirrhosity, and, in connection with polypus, you may have large tubercles in the substance of the ovaries. The seat of the polypus is various, it may lie out between the limbs under the eye, or it may lie in the vagina, or it may be concealed in the uterus, and shut up there as an ovum in the earlier period of pregnancy.

Extirpation as early as possible.

In the treatment of this disease, the first principle, undisputed, I suppose, by those who are possessed of experience in the management of these morbid growths, is, that it ought by all means to be extirpated; for, unless it be removed, it will continue to grow larger and larger, till it utterly wears out life, and this especially, if it be shooting from the upper part of the uterus, or even from the neck. It is, moreover, of vast importance in polypus, not only that it should be extirpated, but that this extirpation should be accomplished as early as possible. Into an error which is very great, the practitioner sometimes falls. Not being accustomed to make an accurate diagnosis[2] of the genital diseases, he does not discover the existence

[1] Sir C. M. Clarke relates a case in which the tumour was of such a magnitude as completely to fill up the cavity of the pelvis: after the shank had been cut through by ligature, it could only be removed from the vagina by a pair of midwifery forceps.—*Diseases of Women.*

[2] The diagnosis in these cases is greatly assisted by bearing in remembrance, that a polypus is destitute of sensibility, and from this circumstance it may be readily distinguished from displacements of the uterus, with which it has occasionally been confounded. If, therefore, pain is felt when the tumour is touched by the finger in an examination per vaginum, it will be evident that the enlargement is not of the polypous kind, but that it arises from some other cause.—*Dr. Waller.*

of polypus for months, or perhaps for years, and the consequence is, that, originally as large as a walnut, it may become at last as large as a child's head; and it may bring on prolapsus of the uterus, and a great deal of mucous or sanguineous discharge, all of which may be prevented, in great measure, when the polypus is extirpated early. Now if the polypus is shut up in the uterus, where it is not to be felt, the practitioner may be excused; but when it is seated in the vagina, or lying beyond the external parts, whether it grow from the neck or from the upper part of the uterus, when suffered to become as big as the closed hand or the fœtal head, it is a disgrace to our art; and yet these great mistakes often occur. Lay this down, then, as a most important part of your practice, that polypi are not only to be taken away, but that they are to be extirpated early, as soon as they are discovered, and as soon as it is practicable.

Proposed measures of Extirpation.

There are different modes in which it has been proposed to extirpate these polypi. Some have been burned, some have been torn, some cut away, and some have come away of their own accord. If a polypus be connected with a shank, of a size little more than that of a thread, you may take it away with the fingers; but where it is of large size, I think the best mode of proceeding is with the ligature, applied by means of one of those instruments, of which I shall hereafter speak.[1]

Necessary Instruments.

In order that the ligature may be applied, it is necessary you should be provided with proper instruments. In the first place, you ought to have a wire well annealed, or a piece of ley-cord, well covered with wax; or, which will anwer excellently, you may provide yourselves with a strong silk, or a small skein of silk covered over with twisted gold wire.[2] The advantage of the wire ligature is, that it cuts rapidly through the pedicle, and is, therefore, well adapted to those case where the pedicle is large. The

[1] Siebold and Mayer, of Berlin, only approve of the ligature in two cases; 1st, when an artery can be felt pulsating in the neck of the polypus; 2dly, when the neck of the tumour is so thick, that it probably contains large vessels. In all other examples, they prefer excision, on the ground of the difficulty of applying a ligature, and, because, when applied, the symptoms are apt to be more severe and the annoyance greater, than after excision. They operate with round pointed scissors, curved like a Roman S, both in the blades and handles, and from 9 to 10½ French inches in length. The division of the neck of the tumour is to be effected not all at once, but by repeated strokes of the instrument. In Mayer's work, six cases are related, in which polypi of the uterus were thus successfully removed by Siebold and himself.—*Cooper's Dictionary*, p. 962.

[2] To be procured where they sell the materials of gold lace.

advantage of the silk covered with wire is, that it acquires a certain degree of stiffness, but which does not destroy its flexibility; and where a loop is formed, it will be the firmer and more easily fixed. There are different instruments for applying the ligature. Levret's contrivance consists of two tubes lying side by side, and consolidated by solder; through one of these tubes you pass one end of the ligature, drawing it through, so as to bring it to the middle, and then you pass the other end of the ligature into the other tube, when you can easily form a loop. There is another instrument mentioned by Burns, a contrivance of his own, which consists of two tubes, but which are not united by solder, but by means of a third piece, which holds them together, and may be removed at pleasure. Now, in using the instrument, you are to put one end of the ligature down the one tube, as before, and the other down the other, by which you make the loop; and then carrying the instrument up, so that its point may lie on the shank of the polypus, and bearing one tube down one side of the polypus, and the other down the other side, you bring them round the shank of the polypus, till they meet, afterwards binding them together by means of a third piece. After all, however, one of the best instruments I know of, for introducing the ligature in ordinary cases, is what is called *Hunter's polypus needle.*

On Hunter's Polypus needle and its application.

This needle consists of a stem of iron, which, though flexible, is nevertheless very stiff, so that you can give it what curve you please, and it will keep that curve; at one end of this stem there is a loop or eye, at the other end you have a handle, to which the ligature is to be fastened. There are different modes in which the instrument may be used, and I will show you all of them, for sometimes you will find one convenient, and sometimes the other. And first, I form a loop by putting a ligature through the eye of the polypus needle; then by means of the finger, if the polypus is small, I carry the loop over the shank, then draw it tight and tie it to the handle. A second method of applying the ligature is, to put one end of the ligature only through the eye of the needle, to carry two fingers of the left hand up to the shank of the polypus, then to pass the eye of the needle into the same situation, guided by the two fingers; now the needle thus placed, may be passed all round the polypus, carrying the ligature, of course, along with it, and in that manner it may be made to include the shank. The ligature thus put round the pedicle, you draw down the needle with care, so as to bring the eye under sight, and then passing the second end through the eye, you draw it tight, when the polypus is secure. There is yet a third mode in which you may apply the ligature with this instrument. As before, you put one end of the ligature through the eye of the needle, and carry it up to the shank of the polypus; then you get the other end of the ligature into your

fingers, and by means of the fingers pass it round the shank; this done, you put the second end through the eye of the needle, draw it tight, and constrict the polypus. So that by all these three modes, the ligature may be applied; sometimes by the one, and sometimes by the other, as circumstances may require. When you have placed the ligature on the shank, you may then draw it tight, and fix it to the handle of the needle; and you will find there ivory studs, formed for this purpose, to which the ligatures may be very easily secured.

Period for applying the ligature.

It is a point of no small importance in applying the ligature, to determine when this application is practicable, and when it is not, always recollecting that the sooner the operation is performed the better. There are some practitioners who advise that we should wait till the polypus comes down and lies out between the limbs, and that then we should apply the ligature; but I would ask, how should we ourselves like to be left bed-ridden with a tumour for weeks, months, and years, in this way, giving rise to great discharges of blood, when the removal of it, in the course of a week, or a fortnight, is known to be possible. It is true that many women are transferred from room to room, but though they are not very locomotive beings, yet to leave them lying in this situation suffering a great deal of pain, and subject to danger, when the remedy could be so easily applied, is cruel. For myself, if I were to treat a patient of mine in this manner, I should consider myself most iniquitous and unjustifiable. There are others who, with more good sense, advise that we should wait till we feel the pedicle of the polypus, and that the ligature should then be applied; and, for ordinary use, I think this rule is not bad. In my own practice, however, I have adopted another method, not, I conceive, without advantage to my patient, and that is the following: having ascertained that there is a polypus, I sit down, and with the utmost care and attention consider the position of the polypus, and what little manual skill I possess; my manual skill compared with the difficulties of the case, I make the attempt if success seem probable, whether I have felt the pedicle or not, at the same time telling the patient, as success is doubtful, that the attempt is made only for the sake of promptly curing her, and that it is uncertain whether I may succeed. On the other hand, if I conceive the application of the ligature to be impracticable, I do not attempt it; and when you become dexterous operators, I would recommend this rule to your adoption; but if you are, as at first you must be, unskilful, then you had better adhere to the common rule of applying the ligature solely where you feel the shank; and where the shank is not to be felt, perhaps it may be better to wait, or to send for more able assistance. Forcing voluntarily brings the shank more within reach; it may in the evening be lower than in the earlier part of the day. Polypi may

be drawn down a little by the forceps, or by a ligature passed through the body with a needle; but drawing, unless with much caution, is unsafe.

Keep clear of the Os Uteri.

In the application of the ligature, be careful not to include any portion of the os uteri, not that every woman will die who has a portion of the womb included in the ligature, for there is no doubt that a part of the uterus may be included without fatal consequences; indeed I have myself, by ligature, extirpated the whole uterus; but certainly the woman will suffer more pain, and the operation will become more dangerous, where any part of the uterus is included. To secure us from this accident, different rules have been laid down, and all those rules are worth consideration. It is a rule of Dr. Hunter, that you should feel the os uteri; and certainly where you can distinctly feel the os uteri, you may, in general, avoid this part, by putting the ligature below it. That you should be careful to apply the ligature where it occasions no pain is a serious rule of great use; for, as I said at the onset, polypus is insensible; and if you find the woman does not feel the ligature at all, when you first apply it, and that pain does not supervene in the course of a few hours afterwards, then you may be well satisfied that no part of the uterus is included, or that the irritation is so small, that it is not worth consideration. There is yet a third rule, which you will find useful in dubious cases—for I here speak of dubious cases only —I mean the application of the ligature pretty close upon the body of the polypus, rather than high upon the shank. Some polypi have the pedicle elongated, and if I could feel the os uteri and clear it, I would put the ligature upon the upper part, so as to take it away; but if I could not feel the uterine mouth, I would put the ligature pretty low down, because, from the experience of others, and not my own, it seems that where the body of the polypus is removed, the shank will afterwards moulder away.[1] In the general it is easy enough, under these rules, to avoid the constriction of any portion of the uterus.

Time required for the removal of the Polypus.

The time that is occupied with the operation of removing the polypus, varies according to the tension of the ligature, and the size of the pedicle, which may be as big as the finger or the wrist; and much depends on the ligature itself, which may be thicker or smaller, and of more or less incisory power. An average term may be about six or eight days; I have known a polypus which required for its

[1] Dr. Gooch advises, that in every case the ligature should, for safety, be applied as near the polypus as possible, believing the remains of the pedicle will waste.

removal fifteen or sixteen days, and it may come away in the course of two or three. A very small polypus, with a very delicate shank, may separate directly you apply the ligature. During the course of the operation, every day, once or twice, you ought to see the patient, in order to satisfy yourself that she is doing well.[1] If there is no irritation, then all is secure; if, on the other hand, there is a great deal of excitement, with pain about the centre of the body, hips, back, thighs, and so on, you may, probably, moderate it by putting the patient on the antiphlogistic plan; but if the symptoms still exacerbate, then you may slacken the ligature, which is very easily done, constricting it after the symptoms are removed, and again slackening if the symptoms again appear. If they come on frequently and severely, you must, I suppose, abstract the ligature altogether, and wait for a more favourable opportunity; such cases are very rare; they are more likely to occur where you have included some portion of the uterus.

Evacuation of the Bowels, etc.

Before[2] the ligature is applied, you should clear the bowels, and the bladder should be evacuated; then the patient may be able to lie quiet for a considerable time after the application of the ligature. When, however, she is moving, unless great care be taken, the polypus needle may be struck at the inferior end, and the upper extremity may be driven through the vagina, so as to inflict a serious injury. Now, there are some needles contrived with shields, the effect of which, where the shield is brought to its bearing on the vulva, is to prevent the instrument from entering further into the vagina. A screw is wrought in these instruments on the shank of the needle, so that you may elevate or lower the shield at pleasure. These shields, however, are cumbersome, and, provided the patient be careful, unnecessary. When I have applied the needle, I have been accustomed to tie a ribbon round the handle, and then round the limb, which has the effect of keeping the needle more steady in one position. I explain to my patient what the object of the instrument is; I state the risk of injuring herself by moving it; I tell her never to stir needlessly, and never to stir without laying hold of the handle, and then if attention be not wanting, there will, as before said, be no danger, and no necessity for a shield. The best shield on this, as on many other occasions, is prudence. Opium should be resorted to if the woman is very

[1] If within a day or two after the ligature has been applied, the vaginal discharges become offensive, it is a satisfactory proof that the putrefactive process has commenced. To preserve cleanliness a little tepid water may be injected into the vagina twice or three times a day.—ED.

[2] For a short time before the commencement of the operation, the patient should be kept in the upright posture, that the neck of the tumour may be more within reach.—*Sir C. M. Clarke*, p. 232.

restless; the Lancaster black drop may be found very effectual, but the different opiates may be tried.

Removal of the Tumour.

If a good deal of fetor follows the application of the ligature, it has been supposed, that after we have tied the shank, we might cut the polypus away. This however is dangerous, for in a case of polypus, joined with inversion, the womb being cut away, it cost the woman her life; the practitioner was not aware of the inversion; there was such an oozing of blood from the surface exposed, that the patient died collapsed. I will not say that this will always be the case; for sometimes, I apprehend, the polypus might be cut away with impunity, especially after the ligature had been constricted for a day or two previously; but in other cases, it may be dangerous to resort to the knife. Should the polypus lie out between the limbs, when you are called to operate, it is said that a good method to prevent putrefaction is to cover it all over with charcoal, and to envelop the whole of it in cloth. The pyroligneous acid may be of use here. Where, however, the polypus lies in the vagina, this is not practicable; but every time you see the patient, you may throw up half a pint, or a pint of water, so as to purify the vagina as far as may be. When you visit the patient, and examine the ligature, you will find it becomes daily slacker and slacker; and you are to tighten it continually, till it cuts completely through the shank. In the majority of polypi of small size, when the ligature has made its way through the shank, the mass will be in a great measure wasted away; but where polypi have acquired a great size, and are become as large as a child's head, for example, and very firm, even after the shank is cut through, they may remain in the vagina. Now such polypi detached from the uterus, it may, at first, be impossible to get through the orifice of the vagina; if, however, they can be removed without danger, it is better to remove them than to leave such a decayed mass within the woman; nevertheless, I assent to the opinion of Denman, that in cases of difficulty, you would be justifiable in leaving the mass until it is softened down by putrefaction; for it is a well ascertained pathological fact, that this mass, in a state of putrefaction, may be left within the vagina without necessarily occasioning danger to the patient. If you observe typhoid, or other symptoms of poisonous influence manifesting themselves, then the mass is to be removed. If you find difficulty in removing it, then you may abstract it with forceps, just as you would bring away a child's head; or you may apply an instrument in the shape of a furcate hook, contrived for the purpose, and this instrument, conducted by the fingers, is to be carried up the vagina, and plunged into the body of the polypus, great care being taken not to injure the woman. After the polypus is removed from the vagina, you may then make an examination of the parts above, to see that there is not another; it rarely happens

that there is a second polypus, but it sometimes occurs, that instead of one polypus there may be two or three.

SECTION XXXI.

PARTICULAR VARIETIES OF POLYPI.

In my last section, I was speaking of polypi genarally; I shall now make a few observations on the particular varieties of polypus which you are likely to meet with in practice.

Milder polypi of the Vagina.

You will sometimes find the milder polypi growing from the vagina. Obstruction[1] is the principal inconvenience occasioned to the patient, and by ligature they are easily taken away.[2]

Polypus of the Os Uteri.

In some cases you find the polypus grows from the mouth of the womb, and in these instances I wish you particularly to notice that as the polypus becomes larger and larger, the shank enlarges also, and the characters of the os uteri are merged in the pedicle, so that the mouth lies flat upon the shank, and all the trace that appears of it, is merely an aperture found in the shank of the polypus, insomuch, that if you had never heard of this circumstance, you

[1] These tumours sometimes obstruct delivery. Dr. Drew, of Cork, relates a most interesting case of this kind, in the Edinburgh Medical and Surgical Journal, 1805, vol. i., where it was necessary to divide the perineum, to extract the tumour in order to allow the passage of the infant. Dr. Beatty, of Dublin, records a case nearly similar, in the Transactions of the Dublin College of Physicians, 1824, vol. iv.: I have met with one case of this kind in private practice.—*Dr. Ryan's Midwifery*, 3rd Edit. p. 257.

[2] Fleshy excrescences occasionally form in the vagina, some of which have a broad basis, and others a thin pedicle. The last merit the appellation of polypi. Their existence is easily ascertained by the touch. By making pressure on the bladder and rectum, they occasion several impediments to the evacuation of the urine and fæces. They may be conveniently tied, by means of the double canula. Should the polypus be situated at the lower part of the vagina, this instrument would not be required. The ligature might be applied with the hand, and the tumour cut off below the constricted part.—*Cooper's Surgical Dictionary.*

The vaginal polypi or excrescences in an incipient state, and particularly when loose and flabby, are sometimes dispersed by stimulant and astringent applications or a hard compress of sponge or any other elastic material; and, if this cannot be accomplished, they must be destroyed by excision or caustics. It is rarely that they have a neck narrow enough for the application of a ligature.—*Good's Study of Medicine*, vol. iv. p. 155.

might mistake, or think there was no os uteri at all, or that you had got an inversion of the uterus. In cases, too, where polypus is growing from the os uteri, sometimes the substance of the womb seems to enter into it, and to become part of it, which makes it more difficult to apply the ligature without enclosing a portion of the womb.[1]

Polypus of the Cervix Uteri.

Again, where a polypus is growing from the neck of the uterus, it may occasion much pain, and a great deal of flooding; and it is by the flooding, and by the examinations to which you are led, that you are enabled to distinguish the case. It is said too, though I never observed this, that where the polypus grows from the neck of the uterus, it is sometimes surrounded by the os uteri, like a ligature, and that it cuts it through.[2]

Polypus growing in the cavity of the Uterus.

Another variety of polypus is that in which the polypus is growing in the cavity of the uterus.[3] It may, when it has formed in the cavity of the uterus, lie out between the limbs, or it may lie in the cavity of the vagina, being come down from the uterus, just in the same manner as an ovum descends in a case of miscarriage; it may, too, be shut up in the uterus, and then there may be a great deal of difficulty in discovering the case, and in ascertaining what is the cause of the symptoms. The symptoms occasioned are floodings, together with a great deal of cutting, grinding, and forcing pain, such, in short, as are produced by miscarriage, though perhaps in a woman unmarried. Be it observed, that when a polypus forms in the uterus, it may leave it early, and when it leaves the uterus, it may leave it suddenly; there is a strong pain, and it comes forth;[4] the patient being astonished to find lying between the limbs a large body, when, perhaps, she was not before aware of any mass having

[1] In polypus of the edge of the orifice or lip, the stalk does not enter the orifice, but grows from the edge of it; it feels as if a portion of the lip was first prolonged into the stalk, and then enlarged into the body of the polypus. —*Gooch on the Diseases of Women*, 2nd Edit. p. 245.

[2] In polypus of the neck of the uterus, the finger cannot be passed quite round the stalk; it may be passed partly round it, but it is stopped when it comes to that part where it is attached to the neck, the stalk is only *semi*-circled by the neck.—*Gooch on the Diseases of Women*, 2nd Edit. p. 244.

[3] This variety is quite unattached to the vagina, so that the finger can be pressed round between the walls of the vagina and the surface of the tumour; but if traced higher up, it is found to terminate in a narrow part or stalk. This stalk is differently attached in different cases.—*Dr. Gooch*, p. 243.

[4] These polypi sometimes pass through the orifice suddenly during the action of the bowels. I have known several instances in which patients, after this action, have been suddenly seized with retention of urine, and on examination a polypus was found in the vagina compressing the urethra.—*Dr. Gooch* p. 250.

been formed within her person. In other cases, it leaves the uterus in a more gradual manner, especially when it comes away early, little by little, so that it is difficult to say when it was that the polypus first appeared. In this variety of the disease, it is very easy to apply the ligature when the polypus is out of the uterus, for then it lies completely in the vagina and within your reach; but there may be more difficulty, and none but a dexterous practitioner could operate, when it is lying in the uterus itself; though I have no doubt that, by a proper instrument, Hunter's needle for example, this might sometimes be done.

Polypus of the Vagina with constriction.

A polypus is sometimes met with, forming in the upper part of the vagina, growing either from the neck or mouth of the womb, and this accompanied with a constriction of the upper part of the vagina, so that when you introduce the finger, the upper part of the vagina appears unusually short, and it is difficult to ascertain the case. You must examine very carefully to find out where the polypus is growing, and when this has been discovered, the ligature may be applied, provided you can open the constricted part a little, so as to allow the fore-finger and the needle to pass along, but some dexterity is required. I know the ligature can be applied in such cases, for I have done it myself. In one instance, where vast quantities of blood were lost, I was requested to see the patient, the case being deemed desperate; it was in this case that I made a resolute effort to apply the ligature, and succeeded, the woman ultimately recovering, which shows the practicability and utility of the attempt.

Polypus of the Vagina with adhesions.

It sometimes happens that the round polypus lying in the vagina contracts adhesions with the surrounding parts, so that you feel the lower frustrum, an hemispheroidal rounded mass, but you cannot feel the pedicle.

A case of this kind, of fatal termination, occurred many years ago in one of the sisters of St. Thomas's hospital. I examined this patient once, and once only, and I did not clearly understand the case, which I had never met with before, nor have I met with it since; on the very night I made the examination, or soon afterwards, she died, so that there was not time for much investigation; the parts were brought to me afterwards, and I found them just as above described. I found, too, which is the great practical point I wish you to attend to, that those adhesions could be very readily separated with the fingers, so that if I had known, a few weeks before, what was the nature of the disease, I could have readily detached the polypus, and applied the ligature, nor would the discovery of its nature have been difficult. Let not this remark, however, lead you rudely to attempt the detachment of masses of the scirrhous kind,

mistaken for polypus. The error might produce fatal consequence; —hence beware.

Polypus with Inversio Uteri, etc.

Women are liable to an inversion of the uterus coupled with polypus.[1] The existence of the two masses marks the character; first, the polypus, and then the inversion of the uterus. In these cases, I believe the better way is to try the ligature, but understand that, instead of applying it to the pedicle of the polypus, you ought rather to apply it to the vagina, so as to take away both the polypus and the uterus together at once. Of course, the patient, in this case, is to be watched with a great deal of care. With polypus of the uterus, tubercular scirrhus is sometimes combined, and there may be scirrhus of the ovaries. Such cases are easily ascertained in most instances by competent examiners; but, of course, the removal of the polypus by ligature leaves the cure imperfect.[2]

Polypus manifesting itself after parturition.

Another variety, one of rare occurrence, is the polypus which manifests itself after delivery. It sometimes happens that a polypus forms in the uterine cavity without the knowledge of the sufferer, and conception occurring, notwithstanding the presence of the polypus, both the ovum and the diseased mass grow together in the uterus.[3] Now in some instances, at least, no ill symptoms may be observed in these cases during gestation, or at the time of delivery; but after the fœtus has been expelled, the growth may descend into the vagina, not without much pain and flooding, and there

[1] When polypus of the fundus descends into the vagina, the stalk drags downwards that portion of the fundus to which it is attached, so that in this stage of the disease it is generally complicated with some partial inversion of the uterus. An inattention to this important fact has led to fatal consequences.—*Dr. Gooch*, p. 252.

[2] When a polypus, with a pedicle attached to the fundus uteri, suddenly falls downward, it occasions a sudden inversion of this viscus. In order to relieve, as speedily as possible, the great pain and danger of this case, the surgeon must tie the root of the polypus as soon and firmly as he can, and pass the ligature by means of a needle, through the pedicle, before the place where it is tied, allowing the ends afterwards to hang down for some length. Then the polypus is to be amputated below the ligature, and the uterus immediately reduced.—*Cooper's Surgical Dictionary*, p. 962.

[3] A case of this kind occurred to my predecessor, Dr. Haighton, a man of solid sense and uncorrupt integrity, to whose precepts I owe much, and still more to his example. In this instance, the polypus was not brought under his notice till several days after delivery; its size was equal to that of the head of a full-grown fœtus, and by the help of the ligature, it was removed in the course of five days. The lady afterwards conceived again, and was delivered of a large child, under the care of my friend Mr. Gaitskell, of Rotherhithe.—*Dr. Blundell.*

is probably some risk lest the uterus should become inverted or prolapsed.

Diagnostic Characters.

Where polypi are growing from the cervix uteri, or below it, it is clear that they may at any time be discovered by proper examinations, for they are lying under your touch, except in the single case, where, from constriction of the vagina, the polypus is shut up in a chamber formed for it, as before explained, or in that other case, in which you have the polypus cohering to the surface of the vagina. When, moreover, polypi are growing from the cavity of the uterus, and have left the uterus, they are easily ascertained,[1] sooner or later they come down, and may then be removed; but the discovery is not equally easy when the polypus is enclosed in the uterine cavity. Again, the principal symptoms produced by polypi when they are lying below the os uteri, or growing from the os uteri or parts below it, are obstructions; when lying in the parts above, they produce a great deal of pain, like miscarriages, with floodings, and a good deal of mucous and sanguineous discharges. For myself, wherever I find that there is an obstinate bleeding produced, with pain about the hips and thighs, the woman's general health not much impaired, except that she has an *ex sanguineous* appearance, I always suspect that there is polypus, and direct my inquiries accordingly.

Conclusion.

Polypi may prove fatal by conjunction with other disease—by flooding and collapse, or by a failure of the powers under the use of the ligature, where too long delayed: two women I have seen perish in this manner. In general, the ligature cures effectually, and the art and the artist deservedly gain much reputation. I would advise you therefore to study the disease with care.

[1] It is not likely that any man of moderate knowledge and experience should mistake *prolapsus uteri* for a polypus of the uterus. In prolapsus, the tumour has at its most depending part a palpable orifice, that of the uterus, into which a probe or bougie can be passed several inches; the tumour is sensible, so that if pricked or scratched, the patient feels it; the tumour grows broader the higher the finger is passed, and it cannot pass high, for it is soon stopped by the angle where the vagina is attached round to the uterus. The higher the tumour is pushed, the easier does the patient become. In all these particulars the polypus is just the opposite; it has no orifice, it is insensible, so that if pricked or scratched, the patient does not feel it; the finger can be passed very high, and the higher it is passed, the narrower becomes the tumour; the higher the tumour is pushed, the more uneasy becomes the patient.—*Dr. Gooch*, p. 253.

SECTION XXXII.

CHRONIC INVERSION OF THE UTERUS.

We sometimes meet with cases of chronic inversion of the womb, in their nature and in their management so similar to those of polypus, that they cannot be considered with greater advantage than in the present place. Inversion of the uterus may, sometimes, be occasioned from polypus, but in nineteen cases out of twenty, the disease derives from delivery both its date and its origin, the womb being inverted during the obstruction of the placenta.[1]

Symptoms.

If a woman labour under a chronic inversion of the uterus, on relating her case, she tells you that she has been ill ever since her last delivery, that she has since been liable to large eruptions of blood, that large concretions have been discharged, and have led to a suspicion of miscarriage, but that no embryo has been seen, and that these discharges end towards the monthly period, returning every four or eight weeks. Her appearance is usally pallid and exhausted. On examining the limbs, you find that the feet are beginning to swell, and you learn, on further inquiry, that the disease has existed, perhaps, for a term of one or two years. Meeting with symptoms like these, you may suspect, with reason, that there is an inversion of the womb; and if there is, upon examining the patient in the usual position, you will find the uterus lying in the vagina, just like a polypus; insomuch, that at first, perhaps, you suspect the disease to be an ordinary polypus: when you feel the reputed polypus, as it lies in the vagina, on placing the other hand above the symphysis pubis, and searching for the fundus of the uterus, you cannot feel it there, and placing the fore finger of the left hand in the rectum, and pressing it forward above the vaginal tumour towards the symphysis of the pubis, and with the first and second finger of the right hand urging the tumour back upon the rectum, you may, as it were, press the finger from the rectum above the head of the vagina, and satisfy yourselves that the womb is not there. Now if you have made an examination of this kind, discovering a rounded body in the vagina, and no uterus in the ordinary situation, the patient telling you that she has been liable for a year or more to monthly floodings, and all this since her last delivery, there can be little further doubt about the nature of the case.

[1] For the cause, symptoms, diagnosis, &c. of recent inversion, see "Principles and Practice of Obstetricy," p. 687.—Ed.

Diagnosis.

In distinguishing an inverted uterus from polypus,[1] it may be no small help to recollect, that a genuine polypus is totally insensible, but that a great deal of pain may be felt on constricting the ligature, if the disease is invertio uteri, and this more especially, some two or three hours after the constriction. There is, too, in some instances, a disposition to vomit.

Treatment.

In the treatment of inversion[2] it has been proposed that we should endeavour to stop the menorrhagic bleedings by injecting the decoction of oak bark, or the solutions of alum, zinc, iron, or the like. I should recommend you to try what is to be done by this mode of treatment, beginning with the weaker solutions, and then gradually increasing their strength, till you have reached the saturated solution, if necessary, and throwing up the injections largely, eight or ten times in the course of the day. The practice is peculiarly important when a woman is about forty-two, because, if you can support her for some two or three years, till the monthly uterine action is over, the bleeding will most probably cease, and she will be no longer liable to the disease. But should the inversion occur in a woman who is much younger, naturally disposed to much of the catamenia, and with a good deal of uterine action; in such case you cannot check the bleeding, and what is then to be done? When I first entered upon the practice of obstetrics, it was supposed that these cases were desperate, and the woman was suffered to go on bleeding, month after month, till she died; but it is now a well known fact, and it is to Mr. Newnham, of Farnham, that we are mainly, if not solely, indebted for the establishment of this fact in modern practice, that the womb may be extirpated by ligature, in the same manner as a polypus; not, indeed, wholly without danger, but without that high degree of danger which makes it unjustifiable to perform the operation; nay, I may say, without such a degree of danger as precludes a fair prospect of success. Mr. Chevalier first led the way to this operation, by extirpating the inverted uterus in

[1] *Inverted uterus* being a rarer occurrence than prolapsus, is less likely to be met with, but when it is, it is more likely to be mistaken for polypus. When the uterus is only partially inverted, that is, when the fundus only is drawn down through its orifice into the vagina, and the patient has survived for many months, the tumour feels exactly like a polypus of the fundus. The distinguishing marks are the time of its first appearance, which must have been immediately after delivery, and its sensibility. In the smoothness of its surface, the roundness of its body, the narrowness of its neck, and its being completely encircled by the orifice of the uterus, it sometimes exactly resembles polypus of the fundus.—*Dr. Gooch*, p. 254.

[2] See Observations on "Chronic Inversions not returnable."—*Principles and Practice of Obstetricy*, p. 691.

a patient considerably advanced in years. A case afterwards came down to Mr. Newnham, in which the woman was about twenty-six, and he applied a ligature, and extirpated the uterus, on the whole, without much difficulty. After the case of Mr. Newnham, another, which occurred at Dartford, was put under my own hands by Mr. Hurst, a respectable practitioner there; in this case, the woman had laboured under the disease for fifteen or sixteen months; if my memory serve, there had been a great deal of bleeding, and a dropsy was begun. In this woman the constitution was rather torpid, and altogether by no means unfavourable for the operation. I applied the ligature with Hunter's needle, as in the case of polypus, and in eleven days the uterus came away; it sloughed, and softened down so as not to separate bodily, in the form of uterus, and the recovery of the patient was complete. Some three or four years afterwards, I saw a friend of the patient, and I was informed that she was well in other particulars, but that she had never menstruated since the operation, and that she had occasionally a slight determination of blood to the head, now and then requiring a little precautionary depletion. It is now, I think, six or seven years since the operation, and the woman is still living and well: during the progress of the removal, not a single bad symptom occurred; nor are patients averse, in these cases, to conjugal society. When Dr. Hull, of Manchester, was in town, he told me he had removed the inverted uterus by ligature, from a woman of a very irritable system; the removal of this uterus required no little care; for as symptoms urged, he was obliged to slacken or constrict the ligature at different times, until, ultimately, the entire uterus came away, and the disease was perfectly overcome. These are the only cases in which I have had a more immediate knowledge of the application of the ligature in the chronic inversion of the uterus, and they have all of them done well; indeed I have not heard even of any cases in which the operation has been followed by fatal consequences, though such cases must, I presume, occasionally occur.[1]

Physiological Conclusions.

If you ask me what is to be the result of an amenorrhœa produced by the extirpation of the uterus, I should say, that the patient is likely to become plumper, and that there may be a determination of blood to the head, so that it may be necessary to apply glasses to the neck. If you ask me whether the removal of the uterus would destroy the sexual appetite, I should reply, that I believe not; if the ovaries are not taken away, I presume, the sexual appetite does not suffer at all, nor am I sure that even the removal

[1] Cases of successful extirpation are recorded, by Dr. Clarke, in the Edin. Med. and Surg. Journ., vol. ii. p. 419; by Mr. Baxter, in the Med. and Phys. Journ., vol. xxv.; Mr. Chevalier's case, related in Dr. Merriman's Synopsis, 4th Edit. p. 306; by Mr. Windsore, in the Med. Chir. Trans. vol. x. p. 358. Other instances are also furnished by continental authors.—Ed.

of these would *always* destroy it. If you ask me whether there is any risk of extra-uterine pregnancy, I should again reply, there is not; for in the formation of an embryo, it is necessary that the male and female material should come into actual contact with each other, and this cannot be the case where the uterus has been removed.

SECTION XXXIII.

LEUCORRHŒA.[1]

Independently of any organic disease, such as scirrhus, cancer, polypus, cauliflower excrescences, or the like, women are exceedingly liable to certain discharges from the genitals,[2] something approaching to the puriform character, but far more frequently allied to mucus, though frequently of more aqueous consistency, and much more abundant than the healthy secretion of these parts.

Forms of the disease.[3]

Of leucorrhœa I have observed in my practice, that there are two varieties, the inflammatory, which is less frequent, and the

[1] This is one of the most common diseases to which women are liable. It is sometimes termed *Fluor Albus*.

[2] Cullen conceived the leucorrhœal discharge to flow from the same vessels as the catamenia. Its source, however, is yet a point of dispute. Stoll, Pinæus, and various other distinguished writers, have ascribed it, like Cullen, to the uterus. But as it occurs often in great abundance in pregnant women, in girls of seven, eight, and nine years of age, and even in infants, it has been supposed by Wedel, and most writers of the present day, to flow from the internal surface of the vagina, or at the utmost, from the vagina jointly with the cervix of the uterus. Morgagni is, perhaps, most correct, who conceives, and appears, indeed, to have proved by dissections, that, in different cases, the morbid secretion issues from both organs; for he has sometimes found the uterus exhibiting in its internal surface whitish tubercles, tumid vessels, or some other diseased indication, and sometimes the vagina, during the prevalence of this malady.—*Good's Study of Medicine*, vol. iv. p. 66.

Gardiner and Caperon considered the discharge to be produced by the lining membrane of the neck and cavity of the womb. But this is now denied, as the disease is common during pregnancy, when the orifice of the womb is completely closed. Blattin examined twenty-four bodies; the fluid proceeded from the uterus in nine cases; from the cervix uteri and vagina in thirteen; and the uterine tubes in two cases. Dr. Dewees asserts, that during thirty years' practice, he only found the discharge proceed from the womb in three cases, and in these the women were barren.—*Dr. Ryan's Midwifery*, 3rd edit., p. 259.

[3] Good speaks of three varieties, 1st, *Leucorrhœa communis*, or *common whites*, (the fluor albus of most writers,) found in girls antecedently to men-

gleety form, which is of common occurrence, not to mention another variety to be distinguished from the other two—I mean an infectious gonorrhœa.

General Symptoms.

In the gleety form of the disease, the patient, perhaps, comes to you with an appearance pale, and worn, and weary; she tells you she is very liable to coldness of the hands and feet; that she feels a perpetual fatigue; that she has scarcely any appetite; that she has a great deal of flatulency, with other symptoms of indigestion; that she has a sensation as if the interior part of her body would leave her person, with aching of the back, and bearing down, and irritation of the bladder; that she is in a high degree irritable, and susceptible, and nervous, and wretched; and that, in connection with all this, she has the *whites*, as she terms the disease, or, to use a form less offensive to the molles auriculæ, a *weakness*, by which she understands a discharge, more or less copious, from the genitals, of a muciform character, not offensive in smell usually, but sometimes so irritating, especially if there is a neglect of cleanliness, as to give rise to excoriations of the surrounding parts.[1]

struation, or on any simple local irritation in the middle of life; 2nd, *Leucorrhœa Nabothi*, or *labour show*, secreted by the glandulæ Nabothi situate on the mouth of the womb, and usually found as the harbinger of labour; and 3rd, *Leucorrhœa senescentium*, or *whites of advanced life*, usually, but not always, connected with a morbid state of the uterus, and commonly showing itself on the cessation of the menses.—*Study of Medicine*, vol. iv. p. 67.

Burns divides fluor albus into three classes, dependent on three different sets of causes, acting on the secreting apparatus; 1st, the symptomatic, produced by an irritation existing in the vagina or its neighbourhood; 2nd, that produced by the action of causes directly on the apparatus, and this is more idiopathic; and 3rd, those cases, where the origins of the nerves influencing the secretion are affected.—*Principles of Midwifery*, 8th edit., p. 83.

Dr. Hamilton describes five species of fluor albus; 1st, when the fluid resembled white of eggs, is not profuse, and arises from an increased secretion in the mucous glands of the vagina; 2nd, when the discharge comes off by jerks, and is said to proceed from the glands of the womb; 3rd, where the disease bears the strongest similitude to gonorrhœa, has all its symptoms, and requires the same treatment; 4th, where the secretion resembles calves' feet jelly; and 5th, where the discharge resembles milk and water, and is said to proceed from the menstrual vessels.—*Ryan's Midwifery*, 3rd edit., p. 261.

Sir C. M. Clarke describes five different species of discharges from the vagina, 1st, the *transparent mucous*, arising from increased secretion in the vaginal surface; 2nd, the *white mucous*, from inflamed cervix uteri or vagina; 3rd, the *watery*, from cauliflower excrescence, hydatids, or oozing excrescence of the labium; 4th, the *purulent*, from inflammation of the mucous membrane of the womb or vagina; and 5th, the *sanguineous*, from ulcerated scirrhus, cancer, or abscess.—*Discharges of Females*, 1821.

[1] It sometimes happens, where the discharge is acrimonious, that it not only excoriates the patient herself, but may act upon her intimate; and

If women give suck during the time they have this *leucorrhœa*, this, it is said, has a tendency to diminish the discharge. Of this I have had no proof myself, though I am not prepared to deny it; but I think I may say, that this diminution is neither certain nor frequent.[1] Women labouring under leucorrhœa, if the discharge be sparing, may become pregnant nevertheless; but those who labour under a copious effusion will, I think, generally remain sterile. When menstruation occurs, it is said the discharge ceases, but of this I doubt. I think it more probable that the leucorrhœa is concealed by the catamenia of red colour, which mingle with it, and that the whole together comes away from the womb as if it were merely the ordinary secretion.

Treatment.

In the treatment of this disease, for it is often a very obstinate and perplexing disorder to overcome, I consider it of the highest importance to ascertain in the first place whether the discharge from the genitals is really idiopathic, or resulting from some previous change of organisation, from polypus, for example, or scirrhus, or cancer, or the like. Now, in dubious cases, the question can be decided only by an examination carefully instituted, but in the majority of instances such examination is not requisite. You may be pretty certain that the disease does not arise from any disorganisation when the discharge is muciform, somewhat sparing, without much offensive smell, and not usually accompanied with floodings. Where there are floodings, where there is much acrimony, where there is a great abundance of the discharge, and watery and greenish, or like a wash of coffee, then you may always suspect, and with strong reason, that disorganisation is the groundwork of the disease, and that it is not, as the patient herself supposes, a simple leucorrhœa. In simple leucorrhœa, the discharges may acquire an odour slightly offensive, but, when cancer exists, the discharge frequently becomes offensive in a high degree, and you must wash your hands, and repeatedly too, before you can get rid of the smell. Again: when I have found the discharge to have no ground in disorganisation, I am further anxious to know whether it is of gleety or of inflammatory nature. In the general, it may be useful to recollect that the inflammatory form is by no means common, and that the gleety variety is of very frequent oc-

where there has been any irregularity on the part of the husband, he may fancy that he has chancre, and that he has affected his wife; indeed a gentleman once called upon me and told me his suspicions, though the subsequent progress of the disease, and the cure without mercury, clearly demonstrated the mistake.—*Dr. Blundell.*

[1] Suckling appears to have great influence over morbid vaginal discharges. I have known several instances in which a copious leucorrhœal evacuation has immediately ceased, upon *the removal* of the child from the breast.—*Dr. Jewel on Leucorrhœa*, p. 57.

currence. Where the discharge arises from inflammation of the vagina, there will often be swelling of the external parts, and throbbing and heat; if married, the patient suffers under intercourse, and, upon examination, the heat of the parts and tenderness will be observed. Add to this, that if the disease be of the inflammatory kind, when you begin with the use of astringents, pain will be produced, and perhaps an aggravation of symptoms. If astringents cure the disease, the probability is that the form is not inflammatory; or if it be, provided the application succeed, the nature of the disease becomes of less important inquiry—a question rather of curiosity than of practical interest. By the external swelling, the redness, the heat, the throbbing, the tenderness, the pain on examination, and I may add, perhaps, by a tendency to puriform discharge, and the effects of astringents when tried, relieving the disease when it is of the gleety form, and aggravating it when inflammatory, you may generally decide, with tolerable certainty, whether the affection be inflammatory or not.

Probable cause of the difficulty in effecting a cure.

Under ordinary management, leucorrhœa, I believe, is found to be a very intractable disease, and women may go on using these astringents, perhaps, for nine months together; and at the end of that time they may be in the same condition as when they first began. From what I have observed in my own practice, I should infer that the cure of this disease is sometimes attended with much difficulty; but this difficulty, I would fain persuade myself, arises more from the negligent and careless manner in which the local remedies are employed than from any want of effect in the astringents themselves, or from any inaptitude of the parts to recover themselves, though, in cases of long standing, it is not improbable that the vessels of the mucous membrane may become distended, and, as it were, varicose.[1] In treating this disease by astringents, then, much care and diligence are required; indeed those astringents ought not to be used in a negligent manner, nor should the employment of them be trusted to the patient without explaining to her very fully the manner in which they are to be administered.

[1] Leucorrhœa in the female, like gleet in the male, may sometimes be kept up by habit, after the irritating cause has been removed. This, however, may be considered the sequel to the state of inflammation or excitement, and produces, by its long continuance, grea' local relaxation and debility, whilst the leucorrhœal fluid lodging in the vagina, tends to encourage the irritation of the part. Mr. Hunter has remarked, that "a gleet seems to take its rise from a habit of action which the parts have contracted, and as they have no disposition to lay aside this action, it is, of course, continued." Thus we find a species of vaginal discharge, which may be termed the leucorrhœa of habit, a state which, I conceive, may almost invariably be remedied by the use of nitrate of silver, although the cure may be somewhat protracted. *Dr. Jewel on Leucorrhœa*, p. 64, 65.

Astringents.

When I have satisfied myself that a patient labours under the gleety form of the disease, I then confine my cure principally to the astringent method.

Solutions of alum, of sulphate of zinc, of iron, decoctions of bark, or hæmatoxylon, may all be tried in their turns. In the opinion of some there is an advantage in varying your astringents, according to their effect, and when you find that one has not the desired influence in checking the discharge, let another be tried.[1] Colourless astringents are to be preferred as they do not stain. The

[1] Dr. Jewel strongly recommends the use of nitrate of silver, concerning which he observes, "One circumstance, more particularly, led me to adopt the use of the nitrate of silver in the cure of these diseases, namely, the extensive and healthy changes which I have known to result from the application of this agent to the different mucous tissues, when their secreting surfaces had taken on a disordered or unhealthy action, as in those of the fauces and larynx. After extensive trials and observation, I can confidently say, that its effects are as conspicuous in cases of vaginal discharge, not dependent on disorganized structure, as in the various local diseases in which it has hitherto been employed, with so much success. It has been said, that checking the vaginal discharge is prejudicial: this opinion is at variance with my own experience; but I would employ the nitrate of silver, not merely with a view of arresting the discharge, but to produce a perfectly new action, or new excitement, in the part from which the secretion has its origin. The mode I have adopted in the application of this agent, has been either to conceal it in a silver tube, as it is employed in cases of stricture, (except that the tube should be adapted to the size of the argent. nitrat.) or in the form of a solution, in the proportion generally of three grains to the ounce of distilled water, the strength being gradually increased. A piece of soft lint may be moistened with the solution, and introduced, for a short period, into the vagina several times in the day; or a bit of sponge, firmly and neatly tied to the end of a slip of whalebone, may be passed into the vagina, up to the os and cervix uteri, well saturated with the solution. This can easily be affected by the patient herself. It is necessary that the application should be frequently repeated, or no permanent benefit can be expected. Should it become requisite to employ a strong solution, and to apply it to a certain part, or ulcerated surface, it can be accomplished with a degree of nicety, by means of a camel's hair brush, introduced through the speculum, or dilator. This, however, can only be done in the absence of excoriations, or tenderness, as the introduction even of a common syringe, sometimes produces a considerable degree of pain and irritation; independently of which, some females will not submit to the introduction of any instrument. In married women, there is not the least difficulty in using the dilator, neither does its introduction, under common circumstances, occasion any degree of pain. By means of this instrument, the condition of the cervix uteri and vagina can be readily ascertained."—*Observations on Leucorrhœa*, p. 82, &c.

There is one great objection to the use of nitrate of silver in solution, viz. the power it has of changing linen clothes black, so that if care be not taken, they will be rendered unfit for use; if, however, repeated trials should prove that greater good is derived from it than from any other astringent, the benefit will greatly counterbalance the objection; the patient should, however, be put upon her guard respecting it.—*Dr. Waller in Denman's Midwifery*, p. 64.

astringent which I generally use is alum, and it scarcely ever fails me.

Moreover, it is not only of great importance that your astringents should be varied in their kind if necessary, but that they should be altered in their strength ; for if you sit down time after time, and prescribe the same solutions of the same intensity, you will most probably fail altogether in the cure. Of course the more dilute the solution the better, provided it will cure the disease ; and it is better therefore to begin with the weaker intensities—say of a dram of the alum to a pint of soft water ; then of two, three, four, five, and a larger number of drams, if necessary, till at length you obtain, and use a saturated solution, provided you find that the weaker solutions are of no avail. It is not to measure and weight that you ought to look where you are using that which you conceive has power to produce an effect, but rather to the effect itself which is produced. Now, in different females, the vagina is very various in its irritability ; five times as susceptible in some females as it is in others. If you find painful effects resulting from the solution, weaken it ; if those painful effects still continue for a week or a fortnight, lay it aside altogether ; never use an astringent of strength greater than is necessary for the cure of the disease ; try, therefore, the weaker solutions at first. If it be objected that you may do mischief to the parts in applying this powerful astringent, it may be replied that we have no proof of this, although the risk ought to make us cautious ; and even if there is risk, as I presume there may be, the leucorrhœa itself does a great deal of injury to the parts too ; and it is a choice of evils, whether you will incur the inconvenience which may result from the leucorrhœa, or whether you will risk the mischief which may arise from an effective attempt to cure. Be resolute, therefore, but be also cautious.

Patient to be provided with a proper instrument.

It is of the utmost importance to your success in this method of treating the disease with injection, that your patient should be provided with a proper instrument, in order to apply the wash to the inner surface of the vagina, generally the seat of the disease ; for though the inner surface of the womb may, in some cases perhaps, be the source of the discharge, I presume that this is by no means common. To attempt the application of these washes by means of a small syringe, or a piece of sponge, is absurd. Arm a patient in this manner, and it will be impossible to bring the remedy into operation upon the parts which are affected. To use the wash effectually, the patient must place herself in the recumbent posture, with the hips raised, and the limbs a little separated, and then being provided with a long tube syringe of the capacity of five or six ounces, she may pass it, previously lubricated, sufficiently far to bring it into contact with the os uteri ; and then, when it has been properly placed in this manner, she may empty the instru-

ment into the vagina, care being taken to depress the piston slowly and gently, so that no injury may be done to the genitals during the descent. This office should be performed, not once or twice only, but eight or ten times, or oftener, in the course of the day; indeed, the oftener it is done the better, for the application of the astringent is temporary, lasting only for a few minutes, so that repetition becomes the more necessary. Moreover, with a view of keeping the astringent in contact with the diseased parts as long as possible, I would advise the patient to retain her position after injecting the astringent; because, as long as she remains in the recumbent posture, so long a part of the injection may be expected to remain in the canal.

Remarks on the astringent method of treatment.

Respecting the use of astringents in cases of leucorrhœa, I would briefly say that if carelessly or injudiciously tried, they will not infrequently be found of small avail; but when they are varied in kind, and altered in strength, and when they are injected sufficiently far and sufficiently often, and with the caution necessary to retain the fluid as long as may be; this method of treating the disease by astringents will, in general, be found to be a most effectual remedy. Astringents in *powder* might be found to be of greater efficacy than the astringent washes; their application would be more permanent, nor would it be difficult to regulate their strength.

Attention to the general health.

In leucorrhœa, while you are treating the disease locally, you are not to forget the patient's habit. In some cases, by sending her into the country, and restoring the general health, the disease may be brought at once to its close. Even in the severer cases, when recommending the topical application, I should pay great attention to the state of the constitution. With this view I should endeavour to amend the condition of the chylopoietic viscera, and more especially to increase the quantity and the quality of the secretions. To ameliorate the secretions, the blue pill may be found of benefit, being given over night, and followed by a morning laxative. In some cases, however, the quality of the secretion may be healthy enough, but the quantity is deficient; and here you may find much advantage in the use of chalybeates, stimulants, and gentle laxatives. Two grains of the sulphate of iron,[1] with aloes and myrrh, of each eight grains, may be given daily, unless too aperient, in the

[1] The best internal astringent is the tinct. ferri muriat., beginning with a dose of fifteen minims three times a day, and gradually increasing it to thirty or forty minims. Whenever the preparations of iron are made use of, the patient ought to be informed of the effects they have upon the alvine evacuations, as she otherwise would probably be alarmed at finding them of a perfectly black colour.—*Dr. Waller.*

form of pill, or two of the sulphate of iron, and three of the sulphate of quinine, may be taken daily, with as much cayenne pepper as may warm the stomach ; the pillular form may be preferred ; the cayenne pepper ought to be good ; the softer the pill is the better ; for pills of all kinds, when indurated, may pass through the bowels unchanged, in cases in which the digestive powers are feeble. These pills may be taken about half an hour before the three principal meals ; breakfast, dinner, and supper ; to be taken at the hours of nine, two, and nine, respectively. According to the effect produced, should be the dose of the cayenne ; and the effect wanted is a little warmth of the stomach, with a little gnawing pain there. In some women, a single pill may be sufficient ; in others, one, two, three, or four ; and, therefore, in those cases in which much pepper is required, it is, I think, better to order pills consisting of capsicum, merely as the efficient ingredient to be taken in conjunction with the others, as need may require. In addition to these remedies, I am inclined also to recommend another of the same class, not without its benefit—I mean the white mustard seed bruised ; a dessert spoonful may be taken as soon as the patient rises in the morning, and another about half an hour before dinner-time. The object of all these remedies, as I employ them at least, is to increase the quantity of the gastric secretion, and in that manner to improve the digestive powers.

Diet.

Again, it is not only necessary in these cases, that you should improve the digestive apparatus as much as may be, but the patient should take a fair supply of nourishing food, not, however, in quantity sufficient to oppress the chylopoietic organs. Every five or six hours the nourishment may be administered—an interval of five or six hours being sufficient for the completion of the gastric digestion ; solids are, I think, decidedly preferable to fluids in these cases, provided the patient can take them. For the same reason, agreeably to Mr. Abernethy's useful rule, I recommend the patient not to drink when taking the principal meal, as the supper or the dinner, for example ; the drink ought to be taken either two hours before, or three hours after the greater meals, in order that it may not be in the stomach when the digestive process is in progress, impeding it by diluting the gastric juice. Some people, however, cannot eat without drinking ; to these I would recommend the use of a quarter of a tumbler full of hot toast and water, being made as hot as the mouth may well bear it, for the heat may have the effect of augmenting the gastric secretion, and, in so far, it may augment the powers of the stomach. In slighter cases of dyspepsia, as I know myself from personal experience, great advantage is derived from the use of heated water at dinner, a beverage sometimes excellent for the valetudinarian, though hurtful for those in health. As to the kind of drink which the patient should take, I think that

black tea is preferable to coffee or cocoa. To coffee I am rather averse; it is heating and menorrhagic. Ale, wine, porter, and spirits, should be made the subject of careful trial. Bottled porter in a state of effervescence, when it does not disorder the stomach, seems to support the system, as I have had occasion to observe, where women have been suckling. Wines are apt to become acescent, and therefore I prefer a moderate quantity of diluted spirit, which, without sugar, is not prone to acidity; two or three parts of water may be added to one of spirit. Half an ounce or an ounce of rum or brandy may be taken in the course of the four-and-twenty hours; the quantity should never be increased without good cause. When two pints of water are mixed with one part of the spirit, the whole becomes weaker than port wine; for, I believe I am right in asserting, that every glass of port wine, of which some ladies unadvisedly drink a pernicious quantity, is equivalent in strength to more than one-third of a glass of brandy.

Exercise in the air.

In treating leucorrhœa, attention must be paid to exercise in the air. It is of great importance when a woman is in town, and labouring under this disease, that the air should be changed, and that she should go down into the country, to the sea-side, or to some of our watering-places. I believe the mere change of air, independently of a better quality of atmosphere, is of no small advantage; and paradoxical as it may appear, by changing the air for the worse, we may sometimes change it for the better. The more the patients are in the open air, the better; they cannot take too much exercise in the open air, provided they do not suffer, in consequence, fatigue, distress, or pain, or forcing; and though much exercise cannot be borne at first, yet by accustoming themselves to it day after day, they may learn at length to bear it with alacrity.[1]

Concluding Remarks.

There are certain medicines which I would recommend to you

[1] Man seems to have been originally formed for the air: you are aware that apes and baboons, and all those animals which bear a great and humiliating resemblance to mankind in structure, are passing their lives in trees and fields; and I would say of man himself, that he is a *field animal*, and that when he makes himself a citizen, he is getting out of his element; to become very polite, and very knowing, and very wealthy, and very careworn, and very miserable; for the apple of knowledge, he again dearly pays; and hence one principal cause of many diseases with which you are meeting in large cities, which are not to be met with equally in the country; and hence many persons are improved immediately and surprisingly by rustication, while living in town: they get into the situation for which the Creator of nature designed them, and for which, I have no doubt, that the different parts of their body are best fitted, and they begin to think that there is some truth in the tradition, and that man may find his best pleasure in a garden after all.—*Dr. Blundell.*

in cases of leucorrhœa, and which I must not pass without notice, though, except in slight cases, much good is not, I believe, to be derived from them. Copaiva balsam, compound tincture of benzoin and cubebs are the principal.[1] I would advise you to administer them according to the effect produced. A pretty full dose of the copaiva, I conceive to be about four drams, in the course of the day; of the compound tincture of benzoin an ounce, and one or two ounces of the cubebs, daily more or less according to the effect produced. Much bed is not good in leucorrhœa. Much dissipation and much devotion, large parties, operas, polemical caudle, and densely crowded galleries, are surely hurtful. Indeed, when patients labour under relaxing cachexia, without organic disease, they ought carefully to review their whole regimen, and confess themselves to their physician, that they may take his counsels respecting it. In such cases, the state of the chylopoietic viscera is every thing.

SECTION XXXIV.

MALIGNANT DISORGANISATIONS OF THE UTERUS, &c.

Women are liable to various malignant disorganisations of the genital system, which, agreeing with each other in many important points of treatment, may be conveniently classed together in one general view.

Extent of the Disorganisation.

Under these fatal disorganisations it happens, occasionally, that both the womb and the vagina, throughout their whole extent, become involved in the disease; more frequently, however, the superior parts of the vagina only, to the extent of one half, or one third, are affected in common with the womb; and, in some cases, the

[1] Various medicines have been proposed, with a view of acting specifically on the secreting parts, such as cicuta, balm of gilead, diuretic salts, calomel, resins, cantharides, arnica, electricity, &c., but they have very little good effect, and sometimes do harm.—*Dr. Burns.*

Dr. Dewees has succeeded with copaiba, when cantharides had failed; and he has found five grains of alum and ten of nitre, given three times a day, prove successful, when every other remedy had been tried in vain.—*Dr. Ryan.*

Capuron has recommended, when the discharge has not yielded to the use of lotions and injections, or if, from its long continuance as a drain in the system, it might be injudicious to stop it, the determining the fluids from the uterine system by counter-irritants, as by a blister applied to the perinæum, or to the inside of the thighs.—*Dr. Jewel.*

disease appears to be confined almost entirely to the uterus, or the verge of the vagina, immediately contiguous, the parts below preserving their original healthy structure. In malignant disorganization, the parts adjacent to the scirrhous womb and vagina are, I fear, too often affected with scirrhosity also; the rectum and the bladder are more especially liable to become affected in consequence of the spread of the morbid changes by continuity; in general, however, I presume that these parts are not affected from the first, and we have reason to hope, till anatomy has proved the contrary, that the womb and bladder will not become affected till the disease has reached its middle or latter stages.

On the enlargement and other characters.

In indolent scirrhus,[1] lately described, the womb enlarges greatly in its size, but these great enlargements are not observed in the malignant disorganisations which we are now considering; and this assertion holds so true as a general principle, that I look on a large uterus as one of the best securities against a malignant ulceration. In general, however, the vagina thickens exceedingly under this disease, becoming as hard as cartilage, and the womb acquires a bulk nearly double its healthy dimensions. Whether this enlarged and altered structure is or not really of the nature of a genuine scirrhus, like that of the mammæ, I am not prepared to decide; perhaps it is not. I never yet examined a uterus, in which the marks of true scirrhous change were of that evident kind which we may observe in cases of indolent and bulky scirrhosity; but certainly, in these malignant ulcerations, the remains of the uterus are found to be harder than is consistent with health, and the induration being unequal throughout its substance, there is a tendency to the formation of small topical masses, which remind one of scirrhous tubercle. These topical indurations, however, present an aspect very different from that of the indolent tuberose scirrhosity, for they are more vascular, not so hard, and evidently not so well and so sharply defined. I may add, moreover, that under these malignant disorganisations, vaginal and uterine, the *ovaries* and *tubes* are occasionally attacked with indisputable scirrhus, diffused or tubercular; and further, that in one instance, at least, of this disease, I had occasion to see several well characterised tubercular masses imbedded in the substance of the liver, facts which certainly give additional strength to the opinion, that the malignant disorganisation of the uterus may be in reality nothing more than scirrhus.

[1] Simple indolent scirrhus of the uterus is very little liable to ulcerate. Sir C. M. Clarke never met with a case in which ulceration took place. Dr. Baillie says that it is very rare. *Ed.*

Ulceration not always evident at first.

When induration and thickening occur, there is often no obvious ulceration at the first, but the parts, when examined by the touch, feel hard, and of irregular surface, and in the midst of this scirrhous and disorganised mass, we frequently find a cavity of various size, sometimes large enough to admit a pullet's egg, and sometimes not admitting the extremities of two fingers without difficulty; and about this time the parts become assailed with a sort of ulcerative action, under which the membranous lining of the parts breaks, and a surface is formed which bleeds under the touch, becomes ragged, and spreads over a various extent of surface; sometimes as broad as the palm of a child's hand, or broader. It is not always, however, that a clear excavation exists in the midst of the scirrhus, for there grows sometimes from the diseased surface a loose fungous excrescence, very lacerable, frequently giving rise to floodings, therefore to be touched with great caution, and which excrescence, whether single or formed into separate and detached masses, may fill the cavity, or push forth beyond. The ulcerative action which assails the scirrhus is usually of slow progress; it spreads gradually over the surface, and slowly penetrates into the substance of the parts beneath, laying open, as it proceeds, the bladder, rectum, and peritoneum, and consuming, perhaps, one or two thirds of the substance of the uterus.[1]

Efflorescent Excrescences.

On the other hand, in these cases of malignant disorganisation, instead of the destructive and wasting ulceration which I have just described, we occasionally meet with *efflorescent excrescences*, small or large, seated, sometimes, on a thickened and indurated base, and sometimes on a healthy structure, occasionally tending to the peduncular attachment, and more frequently having a broad basis, sometimes covering a portion of the genital surface, not broader than a shilling, and, in other cases, a space equal to the disk of a crown piece.

[1] On examination of the malignant cases after death, the pelvis is usually found filled with intestines, glued and matted together, by inflammation, in the midst of which will be found an abscess or two containing healthy purulent matter. In general, no part of the womb remains, except a small portion of the body, or fundus. The substance is very little thickened, but resembles soft cartilage, with here and there small cysts no larger than pin heads. The ulcerated surface is dark, flocculent, and has a dissolved appearance, whilst the substance in its immediate vicinity is various in different cases. *Dr. Ryan*, *Dr. Burns*, *&c.*

Diffusion of the Scirrhosity.

In some cases the whole os uteri enlarges greatly, and at the same time undergoes the scirrhous change and the ulcerative action, the whole or the greater part of the vagina remaining sound, so that, on examination, the entire diseased mass bears a strong resemblance to an os uteri formed upon a very large scale. Again, in malignant uterine ulceration, the ovaries and fallopian tubes may be affected with well-marked scirrhus, whether diffused or tubercular, but I never saw them of great size; the inguinal glands are enlarged sometimes, but not in general; the glands in the back of the pelvis may become as large as a nutmeg, or larger, and there may be enlargement, and a sort of cheesy matter in the lumbar glands; but, in the earlier and middle stages of the disease, the glandular system is not affected in that degree which we might have expected. In one case of fatal carcinoma, I found several hard, white, flat tubercles, on the peritoneum externally, where it covers the parts contiguous to Poupart's ligament; and in another, tubercles were found in the liver and the lungs. I never yet met, in the same individual, with cancer of the uterus and of the mamma combined.

Of the cause of malignant ulceration of the Uterus.

On the whole, though these malignant changes cannot be considered as a merely local disease, yet there is not, I think, that marked diffusion of malignant changes over other parts, which would justify us in asserting, without further proof, that the extirpation of the mass must always be performed without permanent benefit. If cancer of the lip may be removed with success, I should incline to hope, that the same success might attend the extirpation of the malignant scirrhus of the uterus. The malignant ulceration of the uterus, it seems, almost invariably begins in the mouth and cervix. Are the glandulæ nabothi the cause of this? Are not the mucous glands in the lip a principal cause why the malignant change attacks this part? Is not the malignant disorganisation sometimes observed at the anus, the pylorus, and the valve of the ilium, to be ascribed to the mucous glands there? and are not the glandulæ nabothi, that is, the large and numerous mucous glands in the neck and mouth of the womb, the cause why, in its commencement, the disease usually gives a preference to this part?[1] This, if true, would lead us to hope the more from the operation of Oziander, Dupuytren, and Lisfranc.

[1] Carcinoma particularly affects glandular parts; and the cervix of the uterus being the most glandular part of it, is probably the reason why it becomes more liable to this than any other part of the viscus. *Sir C. M. Clarke on the Diseases of Females*, p. 195.

Division of malignant disorganisations.

Although, perhaps, in most cases essentially the same, the malignant changes which the genitals may undergo, are exceedingly various in their circumstances, so much so, indeed, that it may be doubted whether any two cases may present to the morbid anatomist exactly the same aspect. In a view to practice, however, these malignant disorganisations may be divided into different varieties, grounded on the extent of the morbid action, or the character of the change which the parts may have undergone.

Varieties according to the character of the disorganisation.

Resting the distinction upon the character of the morbid organisation, I would, in practice, distinguish four varieties of the disease; first, that in which the womb, enlarged but little, is affected with malignant induration merely;[1] secondly, that in which the disease, being advanced somewhat, the malignant induration, of varying firmness, is become affected with a sort of ulcerative action;[2] thirdly, that variety, in which the hollow formed in the indurated mass is filled more or less co.npletely with a loose, vascular, fungous growth of hæmatoid character; and fourthly, that variety in which an efflorescent or cauliflower excrescence is seated upon an indurated basis. These four varieties may be distinguished, respectively, by the names of the *scirrhous*, the *ulcerated*, the *fungous*, and the *efflorescent or cauliflower* form of the disease.

Varieties according to the extent of the disorganisation.

To distinguish the different varieties of this affection according to the extent of the disorganisation is also useful. First, in many cases, the whole system exhibits the marks of malignant cachexy, being sallow, wasted, and fevered; and the inguinal glands[3] are enlarged, and we have reason to fear a disorganisation of the lumbar glands, or a disorganisation of the liver, or of other viscera. Secondly, in other cases, again, the general system is not affected in the same alarming degree; but diseased changes of structure may have spread wide among the viscera of the pelvis, the entire womb, and the greater part of the vagina, being affected with the malignant induration, in which the front of the rectum, and the

[1] The "Carcinoma Uteri" of Sir C. M. Clarke. *Diseases of Females*, p. 191.

[2] The same as the "Malignant Ulcer" of Dr. Baillie, the "Phagedena or Corroding Ulcer" of Sir C. M. Clarke, and the "Ulcerous Cancer" of Boivin and Duges. *Ed.*

[3] Towards the latter stages of the disease, if the ulceration becomes extensive, the enlargement of the inguinal glands will sometimes arrive to such a degree as to occasion œdema of the lower extremities. *Ed.*

posterior parts of the bladder are involved; in addition to which, the glands are enlarged as before, and there is, perhaps, an indolent scirrhus of the ovaries and the tubes; but a large indolent scirrhus of the tubes and ovaries is by no means a common precursor of the malignant induration of the womb and vagina; enlargement of the glands is more frequent; and we too often meet with indurations of the bladder and the rectum. Thirdly, again, there is yet another variety met with, in the earlier stages especially, and in which the whole of the morbid change of structure seems to be confined to the womb, and to a small contiguous portion of the vagina; insomuch, that there is good reason for hoping that the whole may be removed by the scalpel, no very extensive chasm remaining in the pelvis, after the diseased parts have been taken away. In these cases, it is not probable that the other parts connected with the womb and vagina, by contiguity or otherwise, are entirely free from disease; but I feel inclined to persuade myself, that the diseased change is sometimes so inconsiderable, that when the malignant mass is removed, the parts may recover themselves; or, at all events, that the diseased changes may lie dormant for a long term of years afterwards, or perhaps for the rest of life, and this more especially in cases of efflorescent excrescence.

Mobility of the diseased parts.

Under the more malignant changes of the genital structure, the mobility of the diseased parts may vary considerably; the womb and vagina being sometimes so firmly imbedded in the cavity of the pelvis, that they cannot be stirred by the pressure of the fingers; while, in others, and indeed the greater number of cases, the uterus is found to be movable enough, so as to afford hope of a ready extirpation. This fixity or mobility of the parts seems to depend upon two causes of joint or separate operation—I mean the breadth of the scirrhous changes at that part where the viscera are more immediately resting upon the pelvis, and the extent of the adhesion which these parts may have contracted with contiguous organs. Indeed, in consequence of the enlargement and disorganisation of the adjacent parts from scirrhus, the bladder, rectum, and ovaries, more especially, and the consolidation of these with the womb and vagina, the whole may be formed into one large mass, consisting of the various parts incorporated, and fixed, by means of its broad basis, immovably in the pelvis. Such cases may be easily ascertained during life by a competent operator; they are clearly, in a high degree, unfavourable for extirpation—or rather, in the present state of knowledge at least, the operation in such cases seems to be wholly unjustifiable.

SECTION XXXV.

GENERAL CHARACTER OF THE MALIGNANT GENITAL DISORGANISATIONS.

In considering the character of these morbid organisations, I shall confine myself to only the more practical points.

Wastings.

Women who labour under malignant ulcer of the uterus are generally sallow and wasted, and have a withered appearance of the skin, consisting in a number of minute wrinkles, to be observed especially on the upper and inferior limbs; the emaciation sometimes manifesting itself less conspicuously in the face, while in the arms, legs, and nates, it may, in general, be observed easily enough. Although, however, this cachectic shrinking is one of the best marks of visceral diseases, it must not be forgotten that, in the earlier stage of malignant ulcer, it is not always conspicuous; and the face, in particular, may retain a certain degree of fulness, notwithstanding the ravages of this formidable disease. I remember once observing to a lady, who complained of central uneasiness, that she certainly need not be apprehensive of cancer, her looks were so imposing; yet, on investigation, it was found that the disease was advanced beyond hope.

Carcinomatous Fetor.

In malignant ulcer of the genitals, there is not always a fetid discharge, at least, throughout the whole course of the ulceration, although this fetor is generally present. Therefore, if you find that the patient is affected with a cachectic wasting, and, at the same time, that there is a fetid discharge from the genitals, brownish, greenish, and of serous or watery consistency, there is always too much reason to fear that this ulceration is begun: for the well-known *carcinomatous fetor*[1] rarely exists without malignant ulcer, though the ulcer may subsist, while little or no fetor is perceived.

Hæmorrhages.

In malignant ulcer of the genitals, floodings usually occur, and sometimes a large hæmorrhage is the first intimation which the patient receives of the existence of the disease. These floodings are of various quantity, and uncertain interval, being perhaps most

[1] To remove the fetor which accompanies cancerous ulceration or softening of the neck of the uterus, Martinet recommends the use of the chloruret of soda, or cauterization. *Ed.*

copious and dangerous in those cases in which the ulcer is accompanied by fungous growths.

Central Distresses.

Wasting, fetor, and flooding, are, in this disease, associated with, more or less, central distress; the region of the sacrum, the pubes, the groins, the hips, and the thighs, being the main seat of the uneasiness, which is composed of achings, forcings, urgings, burnings, lancings, and micturition, not to mention other feelings, which scarcely admit of a significant appellative. In different cases, there is much variety in the degree of uneasiness; in the latter stages of the disease more especially, some women suffer dreadfully, and find no solace, excepting from large doses of opium, or other anodynes; while others, more especially in the earlier stages, undergo, comparatively, but little pain. Malignant ulcer is by no means invariably attended with burnings, though the existence of this symptom ought always to create a strong suspicion of the disease.

SECTION XXXVI.

DIAGNOSIS OF MALIGNANT GENITAL DISORGANISATIONS.

In dubious cases of this disease, it becomes necessary to ascertain the existence of ulcer by examination, a diagnostic of no value, if the operation be performed by those who want the necessary science, habit, and dexterity; but where these qualities are not deficient, the operator will generally be enabled to decide the point. By a polished tube, of convenient length and diameter, the *speculum vaginæ*, as it is called, an inspection of the os uteri, and parts adjacent, may be easily accomplished by the help of a strong light; for the tubular form of the instrument effects a dilatation of the vagina, and its polished surface, a sort of circular mirror, conveys and concentrates the light, so as to throw it in full force upon the parts above. This method of investigation must enable the least skilful to determine whether ulcer exists or not; but, in most cases, it is neither necessary nor conceded; and, in cases of reputed carcinoma, generally it is by the touch that we are enabled to determine respecting the existence of the morbid organisation. Now, where this really exists, we find usually, at the upper part of the vagina, a mass as hard as a piece of cartilage, and as large, perhaps, as a goose-egg; and, in the midst of this solid mass, we may distinguish a cavity often of irregular surface, and large enough to admit the extremities of two or three of the fingers; this cavity, however, (in

some few cases,) being filled with a loose vascular growth. Below the indurated mass, the vagina generally feels perfectly sound; a rough examination may give much pain; dangerous bleedings may follow these investigations, if rudely made; and cases of fungus require a touch of the utmost tenderness. The hand is usually stained after these examinations; and, in most cases, though not in all, an offensive odour is perceived, from which the finger is not easily purified. The malignant genital ulcer is, perhaps, most common in the middle period of life; but I have myself observed it at the extreme ages of sixty-four and twenty-eight, not to mention the various intervening periods. It is not certain that unmarried women are most obnoxious to it, and I have seen the disease prove fatal to the mother of fourteen children. Family propensity to the disease is not strong; and yet, in at least two instances, I have known it attack women who were sisters.

Character of the cauliflower excrescence.

Women sometimes labour under the efflorescent, or cauliflower excrescence, without, however, assuming the sallow complexion of carcinoma; and, in those who are disposed to be full and plump, the disease may now and then prove fatal, before an alarming emaciation has been produced. The disease is, I believe, always attended with a pretty copious watery discharge; and when this is abundant, and of long continuance, much wasting and debility may be produced, the exhaustion being sometimes accelerated and augmented by the eruption of large quantities of blood. In the malignant ulcer of the uterus, there is generally much fetor, but this is not, I think, equally certain in the efflorescent excrescence; and the same remark may, I think, be extended to the central uneasiness, usually much greater in carcinoma than in this no less fatal and still more insidious disease. When doubts remain on the mind, an examination becomes necessary, when the efflorescent growth of various size may be discovered in the genital cavity, sometimes uniting with the parts by a broad basis, and much more rarely by peduncle, sometimes seated on parts which have undergone but little change of structure; and sometimes (perhaps still more frequently) resting on an indurated scirrhous mass. The body of the growth may be, in the main, single, or it may be broken into large detached lobes.[1] Prolapsus of the uterus may concur. Are strumous habits most obnoxious to this disease? In Dr.

[1] The excrescence is covered by a very fine membrane, from which the discharge is poured. A small part of the os uteri may give rise to, or it may occupy the whole circumference, but it is never in the cavity. The progress is variable, and sometimes so rapid that the pelvis is filled with it in nine months; and it may even protrude from the vagina. When seen, it is of a bright flesh colour. After death, it resembles a soft, flaccid, slimy, whitish substance, like the fœtal portion of the placenta of a calf, macerated. *Burns' Principles*, 8th edit. p. 104.

Clarke's valuable work on the diseases of women, there are some excellent remarks on this complaint.[1]

Character of the fungous excrescence.

Fungous excrescences vary in their situation, but are generally placed in the upper part of the vagina, or on the mouth or neck of the womb.[2] These excrescences may, perhaps, sometimes grow from a surface healthy enough, but more frequently they are sprout-

[1] Hitherto it has not been ascertained what circumstances produce in the parts a disposition to take on the formation of this disease. It might be conjectured, that an injury inflicted upon the os uteri in labour, either by the head of the child, or by violent attempts made to dilate it, might become an exciting cause; but many examples are to be met with, in which such injury has been done to the os uteri, and no such disease has followed. Married women who have never been pregnant, nay, single women, are liable to the complaint, in whom no violence can have been offered to the os uteri.

It cannot be traced to any syphilitic cause. The common prostitutes of this metropolis are by no means more liable to it than any similar number of women in different stations of life. The disease arises as often in the strong and robust as in the weak; in persons who live in the country, as in those who inhabit large towns; in those whose situation in life obliges them to labour, as well as in those who, from their rank in society, sometimes consider themselves privileged to be useless members of it.

No period of life, after the age of twenty, seems to be exempt from the disease. The author has known it fatal at the age of twenty; and he has met with the disease at different periods of life up to old age. The complaint may arise, perhaps, before the woman has reached her twentieth year, but no such case has occurred in the experience of the author.

It has been observed above, that arterial blood escapes from the tumour when injured; indeed the tumour appears to be made up of a congeries of blood-vessels, and these blood-vessels are arteries; the infinitely small branches of these vessels, terminating upon the surface of the tumour, exhale in the most abundant manner an aqueous fluid. Perhaps some small arteries near the os uteri may undergo that morbid dilatation of their coats which is analogous to aneurism in larger trunks, and thus the disease may be produced. Something similar to this takes place in the arterial, or blood-red nævus, but here the surface being covered by cutis and cuticle, no moisture of the part is met with; but if the surface of such a nævus should be injured, arterial blood escapes. May not such a state of blood-vessels exist at the time of birth, remain concealed in early life from the very small quantity of blood which circulates in the organs of generation at this age, and be developed at that period at which blood rushes with greater force and in greater quantity to enlarge these organs, and in the female to render them fit for the performance of new duties? It may be that the increased circulation which is present at puberty, may not be sufficient to elicit the phenomena of the complaint; the stimulus of marriage may be required in some, whilst in others, the further developement of the organs in pregnancy, or the exertions of labour, may be necessary, to call forth the morbid symptoms of such hitherto dormant diseases." *Sir C. M. Clarke.*

[2] In Denman's Obstetric Plates is represented a fungous polypus growing from the fundus of the uterus, suspended by a peduncle, not larger than the little finger, and the womb is inverted; but generally these fungous excrescences rest upon a broad basis. I am not certain that they are always single. *Dr. Blundell.*

ing upon a carcinomatous base. By wastings, gleetings, floodings, and offensive odours, the practitioner is first led to suspect the existence of the disease, and an examination by the speculum, or otherwise, demonstrates at once the nature of the affection.

Characters in the earlier or inflammatory stage of the disease.

When carcinoma, as it is called, is commencing, it cannot always be ascertained with facility, being liable to be confounded with various distressing affections of the bladder, womb, rectum, or vagina. The existence of the disease, however, may be reasonably suspected, when others of the family have been assailed with this carcinoma, and when there is micturition and back ache, and lancing pains in the pelvic cavity, and muciform or serous discharge, and pain felt during intercourse of the sexes: the lancings, unless they are of the rectum, are very suspicious. It must not be concealed, however, that all these characteristics are fallacious and uncertain, and many women make themselves miserable, by too hastily inferring from such symptoms, that they labour under carcinomatous disease. It is by examination only, specular, or by means of the touch, that in cases of ambiguity, the diagnosis must be established; and if the mouth of the womb is large and open, and if the neck of the uterus and the vagina are thickened and indurated, and if, like a carcinomatous breast, the diseased and indurated parts are affected with severe lancing under pressure, there is good reason for vigilance, since the malignant ulceration may be approaching. A large, patulous,[1] and indurated os uteri, may be looked upon in all cases, as a diagnostic of great value.

Knowledge of the healthy and morbid condition of the part.

To give full weight to your opinions respecting the condition of the genitals, in suspected disorganisation, it is absolutely necessary that you should be thoroughly acquainted with the healthy make of the internal genitals, both in the living and the dead, nor must dexterity and much use be wanting, in order that the examinations may be well made. Anatomy, morbid and healthy, must form the basis of your knowledge here, and I would advise you, on every occasion, whether in the dissecting-room or otherwise, to take every opportunity which may present itself, of examining the state of these parts, both by the knife and touch. In different individuals, there may be much variety in the make of the genitals internally, and this independently of disease, just in the same manner as there may be much variety in the make of the features; the face being variously moulded, not only in different individuals, but in different races; in the Ethiopian and the Caucasian, in the Mongolian and

[1] This open or gaping state of the os uteri sometimes is sufficient to admit the extremity of a finger, which, introduced into it, feels as if surrounded by a firm ring. *Sir C. M. Clarke*, p. 206.

the American family of mankind. Not to mention the variation in the length, the thickness, the capacity, the collocation of the vagina; there is much variety in the state of the os uteri, not to be overlooked by the scientific and dexterous obstetrician. In some women it is flat, in many more tuberose, and forming, as it were, a frustum of a sphere; in some women it is of large size, in others smaller, in most smooth, in some few a little rugose, in some firmer, in many softer, in some with a small aperture, not to be discovered without a very careful investigation, in others with a capacious aperture, readily admitting the fore apex of the finger: in most women the opening is circular, in many, it consists of a fissure never stretching from before backward, but in all cases, I believe, extending from side to side, so as to divide the tuberose mouth into two lips, front and posterior. When large, the mucous follicles in the neck and mouth of the uterus, may, I suspect, give a roughness to this part. Again, the womb prolapses, and the opening of the os uteri is small, it may be over-looked altogether, and the case may be mistaken for inversio uteri, of which error I have seen two examples. A firm os uteri may be mistaken for scirrhus; an os uteri, large and patulous, may be mistaken for cancer. The broken circumference of the os uteri, produced by the pressure of the head during former labours, may be mistaken for ulceration; a rugose os uteri, or the same part roughened by the glandulæ nabothi, may be erroneously supposed to be affected with malignant disorganisation. These, and other errors, however, are the results of a want of knowledge in these matters.

SECTION XXXVII.

TREATMENT OF MALIGNANT GENITAL DISORGANISATIONS.

The remarks which I have to make respecting the management of the malignant disorganisation of the genital system in women, may be conveniently divided into three classes; the first comprising those which relate to the cure of the disease by operation; the second, those which refer to the palliation of the symptoms when the part is ulcerated, or in a state of morbid activity; and the third, those which belong to the management of the disease before the active symptoms, those of ulceration, are begun.

Operative Treatment.

In speaking of the operative, or radical cure of the disease, I shall confine myself to those points which are especially interesting or important; such as to the removal of the disorganised parts, by

making a free opening into the peritoneum, founded on general inferences, operations which may be proposed on the preceding inferences, Ritzius' confirmatory cases, Henry Cline's opinion, the result of my own experiments, necessity of operating early, cases in which the extirpation of the diseased parts may be administered, cautions before operating, and the like.

Removal of the diseased parts by making a free opening into the peritoneum.

When entering on the consideration of the radical cure of this disease, we may properly enough inquire at the outset, whether we are justified, in any case, in making a free opening into the peritoneum, and removing the parts within. From my first entrance on the career of medicine, having had occasion to notice the frequency and the fatality of the disorganisations of the pelvic viscera, I early made it a study to get together a body of observations and experiments which might help to form the foundation of a more enlarged abdominal surgery. These experiments and observations have been laid before the profession in a small work, entitled "Researches, Physiological and Pathological, instituted principally with a view to the improvement of medical and surgical practice."[1] In this little tract, after laying down the particular facts which, with limited opportunities, I had been able to collect in the course of some six or seven years, I ventured to draw from them a few general inferences, of which the following is a summary:—

First. That smaller wounds of the peritoneum, as in tapping, hernia, &c., do not in general induce fatal peritonitis, or other destructive effects; and, therefore, that the common opinion, not, perhaps, found on paper, but frequently urged in conversation, and apparently operative in practice, I mean that inflammation in a spot of the peritoneum, will almost invariably diffuse itself over the greater part of it, is probably unfounded in truth.

Secondly. That extensive divisions of the peritoneum, are certainly not of necessity fatal, whether by inflammation or otherwise; and, *probably* not generally so.

Thirdly. That the womb, spleen, and ovaries, may be taken away in the mode mentioned in the memoir, certainly without of necessity destroying life; and presumptively, without generally destroying it.

Fourthly. That the womb, when developed from pregnancy, may be torn open; that the child may escape into the peritoneal sac, among the viscera; and that the mouth of the womb may be torn off, not, indeed, so far as the cases related may be relied on, without great danger, but twice, in seven instances, without death.

Fifthly, and generally. That the peritoneum and abdominal viscera, though very tender in the human body, will, without fatal

[1] p. 22.

consequences, bear more injury, than, from their modes of practice, the British surgeons, very laudably tender of risking human life, seem disposed to admit.

Sixthly. That all the above inferences, from observations on the human abdomen, recorded in the memoir, are in unison with those drawn from observations on the rabbit, to be found in the same paper, the one set of inferences mutually supporting the other; and here I may observe, by the way, that we have in this a fact corroborative of the principle for which I have contended elsewhere, that observation on the brute and human subject, when made with caution, may, perhaps, be found more in correspondence with each other, than some surgeons are disposed, at present, to admit. A contrary opinion, so far as it is erroneous, must exert a very baleful influence upon the progress of surgery.

Having laid this foundation of fact and inference, I then thought myself justifiable in endeavouring to assist a little in enlarging the circle of abdominal surgery; a part of the healing art which, though clearly environed by many and uncertain dangers, is, however, as it appears to me, by no means incapable of considerable improvement.

Operations proposed on the preceding inferences.

It appeared indeed, that while the body of well ascertained facts, which has reference to abdominal surgery, shall remain small, it would, no doubt, be the extreme of rashness on such grounds, to recommend to practice any operations as yet untried, or of rare performance, "*unless, indeed, in those cases in which they secure the only remaining chance of life.*" But the facts stated in the treatise to which I have referred, and the inferences just given, seemed to create a reasonable suspicion, that a bolder abdominal surgery than that which had hitherto prevailed, might not be unattended with success; and I thought, therefore, that I might be pardoned for endeavouring to draw the attention of the profession to the following operations, all, to appearance not impracticable, though not all of equal promise. In doing this, however, I deemed it my duty in mentioning these operations, to state distinctly what I now repeat, namely, that it is my design at present to recommend them to consideration merely, and not to practice, excepting, as observed before, in those cases in which abdominal surgery clearly contains the only remaining hope; cases in which we might wish the operation to be tried in our own instance, or in that of our nearest and dearest relatives.

First. *A division of both the Fallopian tubes, and even the removal of a small piece of them, so as to render them completely impervious, a fit addition, apparently, to the Cæsarian operation, the danger of which it would scarcely increase.*—The effect of this operation would be to prevent subsequent impregnation, without, however, destroying the sexual propensities, or the menstrual action

of the womb; and as many,[1] besides Mr. Barlow's patient,[2] have, on the Continent, recovered from the Cæsarian incisions, the possibility of a second need for it, should, I think, by all means be precluded. In those cases also, of contracted pelvis,[3] in which, notwithstanding the excitement of parturition in the seventh month, it is still necessary to destroy the fœtus, by opening the head, and reducing their size, in order to bring them down through the pelvis, I think it would not be amiss to adopt this operation, in order to produce sterility. An opening, two fingers broad, might be made above the symphysis pubis, near the linea alba; the fallopian tubes might be drawn up to this opening one after the other, and a piece of the tube might then be taken out. This operation, much less dangerous than a delivery by perforating the head when the pelvis is highly contracted, might, I think, be safely recommended to consideration in these deplorable cases.

Secondly. *The extirpation of the healthy ovaries.*—This operation, even granting it to be safe, can scarcely in any instance be necessary, though it may be observed by the way, that it would probably be found an effectual remedy in the worst cases of dysmenorrhœa, and bleeding from monthly determination on the inverted womb, where the extirpation of this organ was rejected.

Thirdly. *The extirpation of the ovarian cyst, in scirrhus combined with dropsy, or in simple dropsy.*—This operation will, I am persuaded, come into use hereafter, in certain cases properly selected, according to principles considered before. If the dropsical cyst be large and of long standing, the removal will, most probably, be prevented by extensive adhesions; but if the cyst be small, containing (as in a case published by Nathan Smith) a few pints only, the adhesions will most probably be few and easily detached. It remains to be ascertained hereafter, to what extent adhesions in the abdomen may be cut through, without danger to life. For myself, I acknowledge, that I should fear such an operation.

Fourthly. *The removal of a large circular piece of the cyst, in ovarian dropsy, when the sac itself cannot be extirpated.*—As rupture of the ovary has cured the disease apparently, by laying open the cyst, and, perhaps, by inducing inflammation, advantage might be expected from this operation, at least as a palliative, though other cysts would, no doubt, in many instances, gradually renew the disease.

Fifthly. *The removal of the cancerous womb, when the ulceration first makes its appearance.*—Might not the womb be taken out above the symphysis pubis, or through the outlet of the pelvis? If above the symphysis pubis, might not the head of the vagina be

[1] In the British isles alone out of fifty-two operations, *thirteen* were successful and *thity-nine* fatal. *Dr. Merriman's Synopsis.* These cases and others are also given in *The Principles and Practice of Obstetricy*, p. 573, &c.

[2] Barlow's Essays.

[3] Dr. Hull's case. See *Principles and Practice of Obstetricy*, p. 579.

tied up, and might not the ligature be conveyed by needle into the vagina, so as to hang out at the pudenda? All the parts about the cancerous womb, and the vagina among the rest, are in such a diseased state, that I expect little from this operation, unless early performed; and then, perhaps, Oziander's operation of paring away the diseased surface of the ulcer might be preferable; but really the effects of these malignant ulcerations are so deplorable, that I think the propriety of extirpating the womb in these cases ought certainly not to be lost sight of.

Sixthly. *Extirpation of the puerperal uterus.*—When the Cæsarian operation is performed, or when a patient is evidently sinking after rupture of the womb, might not the whole uterus be taken away, especially if inverted? Let it be remembered, that the wound formed by the extirpation of the womb, and which might, probably, be much reduced in extent by drawing the parts together with a ligature, would merely take place of a more formidable wound, that, I mean, formed in the womb by the Cæsarian operation, and which, by the operation here performed, would, together with the uterus, be taken completely out of the body. No operation perhaps, can be more unpromising, (shall I say more unjustifiable *in the present state of our knowledge?*) but I thought it proper to hint at it. Experiment on animals, rabbits for example, which have very large wombs, might be of use here; the inverted womb has been four times extirpated with success, when reduced to the original dimensions.[1]

Seventhly. Should the bladder give way into the peritoneal sac, and I have two preparations of this accident, why should we not *lay open the abdomen, tie up the bladder, discharge the urine, and wash out the peritoneum thoroughly by the injection of warm water?* This operation would secure a chance of life, if the urine had not been long extravasated, say above an hour.

Eighthly. Small openings, with callous edges, through the neck of the bladder into the vagina, are cured in France by the actual cautery. When the opening is larger, it may probably be closed, in some cases, by ligature, without a bad symptom. Mr. Preston, one of my pupils, first suggested to me this operation.

Ninthly. The injection of astringents into the peritoneum, or into the ovarian cyst, has been proposed, in cases of dropsy, to check the exhalation. The experiments related in the memoir, give little encouragement to the trial of this operation, at least with the oak bark; or rather, in the present state of our knowledge, they render it altogether unjustifiable.

Tenthly. In the rabbit, I have often tied an abdominal artery,

[1] Let me here take occasion to do an act of justice, by stating, that in one of these four cases before stated, it was not Dr. Hull who extirpated the uterus, but Mr. Windsor, of Manchester, Dr. Hull kindly contributing his assistance. My friend, Mr. Webber, of Yarmouth, extirpated the puerperal uterus when in a state of inversion, and this within fourteen or fifteen days after delivery: the woman recovered.—*Dr. Blundell.*

and then carried the ligature out of the abdomen, at the point where the artery lay, by means of a broad pointed needle, instead of drawing the thread forth at the wound. In operating on the human body, would this expedient be advantageous, should further experience lead us to wish the ligature in all cases removed? I have, once or twice, weeks after operating, found the remains of a ligature which had been cut short, lying in the middle of a sac of puriform matter, and, to appearance, laying the foundation of chronic disease.

Dr. Ritzius' report of cases.

After the matter of this memoir had been read before the Medico-Chirurgical Society of London, in the year 1823, Dr. Ritzius, one of the supernumerary physicians to his majesty the king of Sweden, chancing to arrive in London, informed me, that the complete removal of the cancerous womb had been, to his personal knowledge, performed on the Continent five times. All the patients recovered from the operation; four of them, he said, were doing well several months afterwards; and one died, not apparently in consequence of the injury inflicted by the operation, but as was supposed, from the further progress of the disease in the surrounding parts contiguous to the uterus. The womb was removed through the outlet of the pelvis. There was no hemorrhage requiring a ligature. Dr. Ritzius designs to publish these cases. The operator, at least in one or two instances, was a M. Saüter, of Constance. These cases suggest many reflections.

Cline's opinion of extirpation.

Some years before the facts and interferences contained in the Researches were laid before the public, in a letter addressed to a very prudent but enterprising surgeon, the late Mr. Henry Cline, I proposed for his consideration, whether it might not be possible, in some cases, to extirpate the uterus when in a state of malignant ulceration. In this letter, shown to two of my more able surgical friends, some reasons were assigned why it was deemed not improper that the attempt should be made; his premature decease, however, which I, for one, shall always regard as a serious loss to our art, put an end to all hopes of his help in this matter.

Result of my own operations.

Having, however, at length laid in fact and inference a foundation for this formidable undertaking, and feeling persuaded that, in some few cases, at least, a life might now and then be saved by extirpation, I determined to take the operation into my own hands, on a proper occasion, and the more willingly, because it seemed rather to require obstetric dexterity than that of the general surgeon,

and I have now operated in four cases, and four cases only, of which the results are before the profession. Of these cases, one was followed by recovery beyond my hopes, though the woman is since dead, and three proved fatal; one in the course of two or three hours after the completion of the operation; one in the course of four or five hours; and one not till nine-and-thirty hours had elapsed after the uterus had been taken away. Of these three failures, one was in a manner hopeless from the first, though, under all circumstances, and at the express and urgent desire of the patient, it seemed but right to give the only remaining chance; one, namely that in which the patient survived for thirty-nine hours, was a failure of encouraging kind, for the case, during a good part of the time, manifested many hopeful symptoms; and one, viz., the last in which I operated, and with more dexterity and readiness than in the preceding cases, considerably obscured my expectations, never very sanguine, by proving fatal within some four or five hours after the extirpation was completed, although, previously to the operation, it appeared, both to my medical friends and myself, that all the apparent circumstances were auspicious and highly conducive to success. Not to mention the successful operations performed, as I am told, by M. Saüter, of Constance, nor the successful case at Liverpool, the favourable event of one of the four cases, namely, that of Mrs. Moulden, demonstrates that there is some soundness in the principles of abdominal surgery, which have already been laid before you. In the present state of our knowledge in these matters, should judgment be taken from the result, the surest method of estimation in a practical science like ours, I do not think that any man, in whom enterprise and prudence are combined, can reasonably condemn of temerity an operation which, to say the least, has in its very infancy been followed by the recovery of one patient out of four labouring under this tremendous disease. For myself, I may, perhaps, be allowed to remark, that the success of uterine extirpation has very far exceeded my own most sanguine expectation—"all the parts about the cancerous womb, and the vagina among the rest, are in such a diseased state, that I expect little from this operation, unless early performed, and then, perhaps, Oziander's expedient of paring away the diseased surface of the ulcer, might be preferable; but I think the propriety of extirpating the womb in these case ought certainly not to be lost sight of—I may be pardoned, perhaps, for endeavouring to draw the notice of the profession to the following operations, all to appearance feasible, though by no means all of equal promise, stating, distinctly, at the same time, that my design, at present, is to recommend them to consideration merely, and not to practice, except as observed above, in cases otherwise desperate."

Such was the language used in the "Researches" before the operation had been performed, and I have deemed it a duty to cite the passage, as it may, I trust, be admitted, that it does not bear about it the marks of temerity, more especially when it follows a

narration of observations and experiments, painfully collected, in order to form a ground-work on which the operation might rest. Enterprise and rashness may, perhaps, be consanguineous, and at first glance they may appear to bear a great resemblance to each other; in reality, however, they are as different from each other as vice and virtue; and while I hope that the one may never be wanting in medical schools, our institutions will, I trust, always remain as free as hitherto from the just imputation of the other.

Cases in which the operation is or is not admissible.

Allowing that there are cases of malignant disorganisation, in which the extirpation of the diseased parts may not unreasonably be recommended, it behoves us next to consider what are the cases in which the operation may be administered, and what are those cases in which there is no reasonable hope of its being performed with success. Now, in the present state of our experience, I deem it unwise to operate if the system is originally unfavourable for the higher operations of surgery—if the habit exhibit the marks of malignant cachexy—if the inguinal, and therefore, in all probability, the lumbar, glands are affected with enlargement and induration—if the scirrhous hardness have extended itself to the rectum or the bladder—if, together with the uterus, more than one quarter of the vagina is involved in the scirrhous changes—if the traces of decided ovarian enlargement are observable, or if the womb and parts connected are immoveably fixed in the pelvic cavity, so that, under examination, they cannot be made to change their place under the pressure of the finger; and all this may be easily ascertained on the living subject, by a competent investigator. But if, on the other hand, the malignant nature of the disease is indisputable, and the constitution is originally of a kind favourable to operation—if malignant cachexy is not strongly marked—if the inguinal glands and the mammæ are on the whole healthy—if the disorganisation is confined to the womb and the contiguous parts of the vagina—if, as generally there is, reason to believe that there is no dangerous change of structure in the ovaries, liver, spleen, kidneys, omentum, or other viscera; and if the diseased mass is movable, and if there is reason to hope that the whole may be removed entire by the knife—then I conceive the operation may, not without good reason, be suggested to the friends of the patient, with an honest declaration at the time, that it is necessarily attended with great and uncertain danger, on the one hand, although on the other, it contains in it the only remaining hope of life. Death is before the patient, disease is behind her. The operation in question, is the only issue of escape.

Cautions before operating.

Although, in this malignant disease, the only chance of life rests on the operation, let me entreat you, for humanity's sake and for the honour of your profession, to act with mature consideration; beware of supposing a uterus, healthy upon the whole, to be in a state of malignant disorganisation; beware of attempting to remove the uterus, merely because it is of large size and affected with the indolent scirrhus, diffused or tubercular, as before described, for these scirrhosities are not of the malignant kind, and in them, therefore, such an operation would be totally unjustifiable; beware of delaying the operation till the scirrhus and the habit are so far diseased as to leave no hope of success from the operation; beware again of attempting the removal of the uterus, unless the ulceration is begun, and indeed unless the life of the patient is already brought into such danger, that there is no reasonable hope that it will be protracted beyond four or five months; beware of attempting the operation, if the constitution seem to be originally unequal to the shock, or if it be broken up by a strongly marked and malignant cachexy; or, if other disease, visceral or thoracic, may be suspected; and on no account let the patient be over persuaded to submit to the operation, whether by the surgeon or her friends; but operate in those cases only, in which a free and unforced assent is given. In the present state of our information, it requires some skill to perform it; but skill perhaps still greater is required to select cases in which it is fitting; if any one consideration could have withheld me from using my humble endeavour to support and improve this part of surgery, it would have been the melancholy foreboding, that *the abuse* of this operation, like that of obstetric instruments, might ultimately convert into the bane of the sex, that which was designed to have given them help in their last extremity. Beware, lastly, of undertaking these operations, unless you are very skilful and competent. As the operation is performed at present, the obstetric surgeon is perhaps of all, the best qualified for the undertaking, by his previous pursuits; nor am I surprised that the general surgeon, habituated to operate under the guidance of the eye, should feel some little repugnance to perform an operation, in which it is the touch, not vision, which must be our principal guide.

Difficulties and dangers attending extirpation.

When extirpation is to be performed, it is proper that the operator should thoroughly consider the difficulties and dangers of the operation before he takes up the knife. Now so far as a judgment may be formed in the present state of our information, the principal dangers consist in a risk of hemorrhagy, a risk of collapse from the narcotic shock produced by the removal of the parts, a risk of the protrusion of the intestines, a risk of wounding parts contiguous to

the uterus, as the ureters, the bladder, the rectum, the folds of small intestines. Of these dangers, I am not sure that they are inseparable from extirpation; a skilful operator may, I conceive, generally avoid wounding accidentally contiguous parts which he is desirous to avoid: when the operation is performed quietly and with due dexterity, I presume, that protrusion of the intestines is very rare; nor ought we, I conceive, to despair too hastily of contriving means to command the hemorrhagy, which in no one instance hitherto, so far as I know, has been *clearly* shown to have occasioned death, though opinions my differ here. The narcotic shock, communicated by the removal of the parts, seems to be nearly allied to those collapses which arise from other injuries of large or important parts of the body, as laceration of the uterus, rupture of the stomach or the bowels, blows upon the head or the like; and although these shocks seem to be in some degree inseparable from the operation, much, perhaps, may be done to diminish them. Now, there are, I think, two parts of the operation by which the whole system is principally shaken; the division of the connections, by which the diseased parts are fixed in the pelvis, and the subsequent abstraction or withdrawing of the uterus, in those cases in which effort is requisite. That part of the shock which is occasioned by the latter cause, may probably be obviated altogether, by improving the method of procedure; but that part which results from the division of the uterine connections, seems to be inseparable from the operation, excepting in so far as we can sustain the system against it; as, for example, by putting the patient under the influence of opium before the operation, (a hint which I received from Mr. Webber,) and by administering spirit during its progress, and immediately afterwards, should the failure of the pulse seem really to require it.

Method of operating.

With respect to the method of extirpating, it may be observed, that different operators may, at present, prefer different modes of proceeding, and with good reason, a method being good or bad, in these cases, according to the aptitudes of the surgeon; for these things are relative. It is much to be wished, that in all cases, the different parts of the operation might be brought under view; nor do I yet despair of this; the general surgeon would, I presume, of preference remove the parts by incision above the symphysis, and a facility would thus be afforded for ascertaining the state of the abdominal viscera; but I suspect it will be found at last, that it is through the outlet of the pelvis, that the parts may be removed with the fairest prospect of success. My own method of removing the diseased structure, is given at large in the history of the operation on Mrs. Moulden. To that account it may be sufficient for the present to add, that in performing the operation, I should make my election according to the position of the fundus uteri, between retroversion and anteversion; that is, if the fundus, as generally, lay

upon the symphysis pubis, I would bring it down in front, along the neck of the bladder; it was thus that I removed the womb in my first case; or if, on the other hand, the fundus were erect, or lying upon the rectum, (an accident of rare occurrence,) or if I found as the operation proceeded, that the fundus might be easily retroverted and brought down along the rectum, I should prefer this mode, and it was thus that the uterus was removed in Mrs. Moulden's case.

SECTION XXXVIII.

REMOVAL OF THE LOWER HALF OF THE UTERUS.

With a view to the radical cure, besides the extirpation of the entire womb, there is yet a second operation which may be proposed, and this consists in the detachment of the lower half of the uterus from its connections, and the removal of this part by the knife, or some better adapted instrument, which may act upon the principle of the scissors. In mentioning this operation, I must at the same time state, that we should be very blameworthy, if we were, in the present state of knowledge, to introduce it into practice;[1] but as an operation of this kind, under conducive circumstances, might not always be found ineffectual, I think, it right that we should not lose sight of it altogether. If any cases may at present be adjudged more favourable than others to its use, they are those in which, the disease being in its earlier stage, the ulcer has made but little progress; and though I am sadly fearful lest ulceration should be renewed in the parts which remain after the operation, yet I entertain a kind of hope, that this, perhaps, might not occur, if the mouth and neck, together with the whole apparatus of the mucous follicles in them (a sort of nidus for the diseased action,) were removed.[2]

[1] Velpeau reckons that, of six or seven persons, one dies in consequence of this operation; two have died under his own hands, and in both cases some cancerous portions remained. M. Blandin lost one patient, either in consequence of phlebitis or, as he believes, of absorption of the pus; some have died of peritonitis, and others in consequence of a nervous state, the severity of which it is not easy to explain.—*Boivin and Duges, by Mr. Heming*, p. 243.

[2] Dupuytren, who, as it were, almost naturalised the operation in France, seldom had recourse to it before he died. Osiander discontinued it sometime before his death. Dupuytren performed the operation from fifteen to twenty times. Osiander twenty-eight times. Lisfranc from forty to fifty. The danger affects the life of the patient, and not the functions of the organ; for several women have afterwards become pregnant and been safely delivered at the full term: several cases have been quoted by Lisfranc. It is

Lisfranc's operation.

Lisfranc has recommended, that in the so-called carcinoma of the uterus, we should with forceps draw down the diseased parts upon the orifice of the vagina, and remove by instruments which act on the principle of the scissors or the scalpel. While, however, I cannot but applaud the man who has thus made it his endeavour to help the sex in this last and most deplorable extremity, and while I feel persuaded in my own mind, that cases may now and then occur, in which, if the ulcer is small, and the womb is prone to descend, an operator like Lisfranc might dexterously remove the parts; yet I must at the same time add, that in the ulcerated carcinoma of the English obstetricians, an operation of this kind is quite out of the question; and I express my opinion with the more freedom here, because a notion that an operation of this sort is both easy and effectual, might lead the thoughtless and enterprising to rush headlong into the undertaking, in cases where failure is certain. And what may be expected to follow, if the surgeon plunges hooks into these parts, and after tearing and failing is obliged to relinquish his attempt? The ulcerated carcinoma of the English practitioner, in the great majority of cases, is too firmly fixed in the pelvis to admit of being drawn down and removed in this manner; and very much is this to be regretted, as the operation, if possible and effectual, would most probably prove much safer than the total extirpation before mentioned, even though we suppose that operation to have been brought up to the beau ideal of its perfection; nor must I omit to add, that the removal of the os uteri in this manner, before ulceration commences, merely in the way of preventive, can, I conceive, never be justifiable till we have more certain diagnostics by which we may distinguish the so-called carcinoma in this stage of the disease.

Operation performed by Osiander and Dupuytren.

By Osiander and Dupuytren there has been performed another operation for this most distressing affection, the "scooping" of the diseased parts, as it may be called. That I am master of the details of this operation I am not sure, but so far as I can learn from those who have been present, it is proposed, in proper cases, to remove the diseased surface from the whole extent of the ulcer, by the operation of paring, and in that manner to come down upon a part which may undergo the healing process. Of instruments used in this operation, one, as I have been informed, bears some resemblance to the bowl of a teaspoon, formed, however, with trenchant, or cutting edges; this cochleariform scalpel being

right, however, to add that this event followed the removal of the *vaginal portion* only of the cervix uteri.—*Boivin and Duges, by Mr. Heming*, p. 243.

mounted on a shank and handle, so as to enable the operator to pass it up into the scirrhous hollow, and excise the surface by sweeping it round the cavity. In small ulcers of dubious scirrhosity, an operation of this kind might, I can readily suppose, prove successful, and it ought not to be lost sight of; I must observe, however, of this, as of the two preceding operations, that although I deem it a duty to mention them, they are not to be performed unless by those who have qualified themselves for the task by a great deal of previous meditation and collateral knowledge. Beware of disgracing yourselves by rashly running upon undertakings to which, though possessed of much valuable knowledge, you may find yourselves incompetent.

Arsenic, Caustic, and Cautery.

Lastly, to destroy the diseased surface, arsenic and cautery, actual and potential, have been advised and tried, but, as I am told, with no encouraging success. The abuse of such remedies might be terrible.[1]

Cases most favourable for these operations.

The great objection to every one of these latter operations is, that they leave within the body a diseased and indurated mass to renew the disease. The cases the most likely to receive benefit from them are not those which we call carcinomatous, but those in which there is ulcer merely, without a deeply-penetrating disorganisation; and, unhappily, few cases are of that kind, and in ordinary practice, but few may be able to distinguish them. The obstetric diagnostic of the organic affections of the abdomen is, I believe, in general,

[1] Cauterisation of scirrhus or encephalosis, even when confined to the cervix uteri, will be indicated only when the tumours are of little volume, unless it be determined to remove it, first by excision, and to cauterise any remaining portion. Cauterisation has been, accordingly, more particularly proposed in the first or second degrees of ulcerous cancer. It is true that scirrhi of little thickness, may be thus destroyed, layer after layer; but besides the immediate danger of this repeated process, the violent inflammation of the uterus and peritoneum which might ensue, it is well known how rapidly carcinoma increases when injudiciously irritated by caustics; and that, not merely in the part itself, but throughout the whole uterus and neighbouring organs. Hence, cauterisation is less to be recommended even than excision, when it is supposed that the disease has reached the body of the uterus, or that the ovaria are affected, or that the lymphatic glands of the pelvis and loins are congested and diseased. Every precaution must be taken to prevent caustic applications from extending their contact or influence beyond the part diseased. This is particularly necessary in the employment of fluid substances applied with a pencil, such as the nitrate of mercury, or muriate of antimony; or of solid substances which are very soluble, as caustic potassa. The nitrate of silver occasions less inconvenience, but is more superficial in its action, and its application requires to be more frequently repeated.—*Boivin and Duges, by Mr. Heming*, p. 243.

more accurate than that of general physic, yet it requires further improvement. The *speculum vaginæ* in many instances, is of great use, but its value is not greatest here.

Palliative treatment of malignant disorganisations.

In malignant disorganisation of carcinomatous character, if the radical cure appear to be impracticable, it becomes our duty to palliate symptoms; and our practice here lies, at present within a narrow compass, to be, perhaps, hereafter enlarged. Under these malignant changes, large floodings sometimes occur; quiet, coolness, recumbency and nourishment must be observed. Perhaps, in some cases, topical cold, and lead and turpentine, and plugging, may be required. *Mutatis mutandis*—the treatment of flooding cases will apply to these. If there is loose fungous growth, we may consider how far this admits of removal by ligature; but it might be dangerous to increase the hemorrhage by touching or contracting it, and perhaps the less it is interfered with in any way the better. With inflammation, the carcinomatous change is sometimes attended, the body of the uterus, the peritoneum, or the parts contiguous becoming assailed. These inflammations are seldom, if ever, so violent as to endanger life, though much spasmodic pain and distress, whether of the womb itself, or perhaps of the intestines, may be sometimes produced. In many cases, the inflammation becoming of itself extinct, may require no remedy at all; but if a remedy is required, perhaps laxatives, leeches, and fomentations may be found the best; the leeches may be applied in front of the abdomen below the navel.

The so-called carcinomatous change is not always accompanied with much central pain, but not infrequently much pain is felt, especially as the disease makes progress. Of invaluable use in these cases are anodynes, not, perhaps, always used with that skill and diligence and perseverance, which their worth may deserve. Opium, hyoscyamus, conium, lactuca, stramonium, may all be used in their turns; and of these, opium is the chief. In different preparations, opium may be used; black drop and liquor morphinæ acetatis, are especially valuable, on account of the little distress which they occasion to the head. In different ways the anodynes may be administered, taken into the stomach, introduced into the rectum, laid upon the skin, as a lotion of tincture of opium for example, or rubbed into it like mercurial ointment. The measure of these remedies must be determined by the effect produced; nor is the largest dose of opium unjustifiable, provided it be the minimum which will relieve the pain. Unhappily there is no danger lest a bad habit should become formed; the patient is making a short journey to the grave; and all that remains to medicine is to lead her in peace along the irremediable way—to soften her couch—to smooth her pillow—with wise and gentle hand to mitigate her suffering, and to conduct her, undisturbed, into the silent tomb.

Treatment before the active symptoms, those of ulceration, have begun.

Before ulceration occurs in this disease, there is an inflammatory stage worth much attention, because, by keeping down the inflammation, the fatal catastrophe may be delayed. Other inflammations of the chronic kind in the uterus, are very liable to become confounded with the carcinomatous, and though it may sometimes be impossible to make the distinction, yet the hardness, the openness of the os uteri, the darts of pain, the death of others in the family under the same affliction, will often enable us to distinguish; and, in general, where we doubt, it is better to assume, that the disease verges to carcinoma, and to treat accordingly; and the rather because this method of treatment seems to be well adapted to mere chronic inflammation. Earnestly dissuade your patient to refrain, as far as may be, from attempting to form opinions on the subject, for she must be totally unable to judge, when even the obstetrician himself, with all his examinations, may doubt; and the misery which may be occasioned by a hypochondriacal and ill-grounded apprehension here, is exceedingly great.

Leechings above the symphysis, cuppings on the loins, a tepid hip-bath of 87°, a clear rectum, abstinence from the sexual use of the organs; relaxation of the alimentary tube, warm clothing, cool, but nourishing diet, iodine perhaps, are the principal remedies. It ought to be our great object to keep down action. Of course the first attack of ulceration ought to be watched for with vigilance, as it then comes to be considered, and not till then, whether the radical remedies ought to be assayed.

Treatment of the cauliflower excrescence.

If the efflorescent or cauliflower excrescence is left to run its own course, it invariably, I believe, destroys the patient, either by the flooding, or the more frequent serous discharges to which it may give rise. To obtain a complete cure in this disease, is exceedingly difficult; to alleviate it effectually, may be no easy task, yet *I am by no means whatever of the opinion* of those who think that we ought to sit down in desiduous apathy, without stirring one inch in good earnest, for the effectual relief of this disease;—

> "Suave mari magno turbantibus æquora ventis
> E terra magnum alterius spectare laborem."

It may be sweet and poetical enough, while secure on the rock ourselves, to see the vessel founder in the midst of turbulence and tempest; but surely there is nothing to be envied in the feelings of those who can see a poor helpless woman sinking under this disease, without stirring the whole art to save her—or, at least, to alleviate and to procrastinate the fatal termination of the disease;

and yet this case is sometimes managed with a very reprehensible inertness.

Efflorescent excrescence with a peduncular basis.

The greater number of the efflorescent excrescences which form in the genital cavity, are of two broad a basis to admit the ligature; yet this is by no means the case invariably; for they are sometimes united with the womb by a peduncular basis, and with the help of the ligature, may be easily got away. In these cases, it is true the disease may return at the end of a year or so, but it is equally true that the patient, in the mean time, may gain flesh and strength, and may remain almost entirely free from discharge; and for ought I yet know to the contrary, it may again be relieved in the same manner, even if the exuberancy of growth cannot be kept under by the occasional use of caustic. Besides, our days are numbered, and life is made up of years; so that even in this view, one year of restored health and hope is too large a portion of human existence, in middle life especially, to be regarded with indifference. Examination only can detect the cases well fitted for the ligature; if the texture is loose, and liable to be cut through with the thread, it is better not to tie.

Efflorescent and peduncular growth combined with inversion of the Uterus.

Efflorescent and peduncular growth, of large size and malignant nature, is, in some rare instances, combined with an inversion of the uterus.[1] Such inversion would be a great advantage. I wish we had it in our power to produce it *ex arbitris*. Should a case of this kind be committed to your care, I conceive that both the womb and the malignant growth might be extirpated by ligature at once. Nor is it impossible that this thought may contain a principle which lies at the bottom of some valuable improvement of our operations of extirpation. As to the scooping or removal of the diseased mass and its basis by excision, I fear that this also will, in most cases, be inadmissable; and yet, as the disease varies much, both in the breadth and depth to which it spreads, I think cases may now and then occur, in which the whole may be effectually removed in this manner, more especially if it be seated merely or mainly upon the mouth of the womb.

Remedial measures.

Whether any thing effectual can or not be accomplished by caustic may, at present, admit of a dispute; and this remedy, therefore, deserves a passing consideration. The cases which

[1] Of this disease you may see a representation in Denman's Plates.

promise most, are those in which the growth is not of broad basis, and where the growth has been removed by the application of the ligature. Under such conditions the caustic may be applied to keep under the renewal of the excrescence; lunar caustic I have known to be of sufficient service to recommend it to future trial; but I do not venture to give an opinion of the actual cautery, though it might be easily applied; and I have had under cure a patient who would willingly have submitted, provided other means of relief had failed. In the general, however, the disease is far too extensive to admit of these remedies; and then, considering the fatality of the affection, it may be worth a consideration whether we ought not, as in carcinoma, to extirpate the womb and adjacent vagina altogether. Anxious as I am that this infant operation should not be ruined by rash performance in ill-chosen cases, I would not dissuade one from the use of it in cases of this kind, provided circumstances are favourable and there remain no other hope; and, in cauliflower excrescence, there is less reason to fear a general contamination of the constitution, than in those cases of so-called carcinoma, which we have made the subject of so much remark.

On analogous Diseases.

To my remarks on the malignant disorganisations and genital excrescences more might be added, but the principles already laid down, will, with a little modification, apply to analogous diseases. It may be proper, however, to add, that polypi of loose consistency allied to the efflorescent excrescence, sometimes grow from the genitals; that fungous excrescences, of very loose texture, sometimes form there; that polypi may grow on the outer side of the uterus, and obstruct the pelvis, by falling down upon the bladder or the rectum, and may be mistaken for enlarged ovary, of which I have seen examples; that we may, too, have mixtures of these diseases—polypus, external and internal—indolent scirrhus, with fungous growth, allied to fungus hæmatodes—nor is there, perhaps, any one rock on which we are more likely to make shipwreck, when we first begin to make our diagnosis with care, than that of forgetting, after we have clearly detected the existence of one organic disease, that there may, too, be another co-existent with it, equally important, though less obvious, and which, in our forgetfulness, is overlooked.

Conclusion.

Practitioners, both the resolute and the irresolute, the skilful and the ignorant, on passing their attention over the various abdominal or pelvic operations which have been suggested in this section, may, perhaps, feel impelled, from various motives, to raise their voice against these dangerous innovations. Nor can it be denied that much may be urged on their side. The ultimate good from these operations may, in many instances, admit of debate; if these prin-

ciples are abused, they, like other parts of the healing art, may be converted into a bane, instead of a blessing; but I would ask, are not these diseases desperate under the present received modes of treatment? has the method of procedure, during the last hundred years, discovered any better and more effectual remedy? may it not be found that the surgery of the abdomen and the pelvis, after it has received its last improvements, is not necessarily attended with those dangerous consequences which may now accompany it? Who, in this country, would have imagined, some ten or twenty years ago, that the human uterus might be removed by the knife through the outlet of the pelvis—who would have dared to assert the possibility of a recovery after such an operation? would not a proposition of this kind have run the risk of being designated as insane? Therefore, from what has been done already, may we not hope, for the sake of suffering humanity, that much more may yet be accomplished—ought we not, each in our places, to do our utmost endeavour in promotion of so desirable an object? If we are not justified in risking something—where risk is absolutely necessary—as in cases otherwise without hope, pray in what cases are we justifiable? surely, if there is any thing solid in abdominal surgery, such as it may ultimately become, it is the duty of us who are entrusted with the health of the human race, to do our utmost every way to improve it—proceeding in this, as in other generous undertakings—not rashly—not for the sake of notoriety or gain—but with a well-balanced spirit of caution and enterprise—under the influence of a feeling never wanting in the generality of our profession—the sincere desire to alleviate the sufferings of humanity—often animating ourselves with the glorious and never palling sentiment so finely expressed by the noblest of orators in an age when orators were noble—"*nullâ in re propius ad Deos homines accedunt quam salutem hominibus dando.*"

SECTION XXXIX.

UTERINE FORMATIONS.

The uterus and vagina, separately or together, are sometimes secreting a friable material, by which the two cavities may become loaded; the disease being indicated by pains like the parturient, by watery, or perhaps sanguineous discharge from the uterus, and by the occasional escape of the friable material itself. Of this disease, it has been my lot to see more than one instance, and, I presume, that it is not very uncommon. The quantity of material may amount to some ounces, or be of a few drachms only. In one case, which I examined with care, the material seemed to be generated

by a state of the membranes lining the genital cavity, similar to that observed in the mouth under thrush.

Fleshy substances.

Sometimes, independently of intercourse with our sex, there form in the uterus fleshy substances, which resemble in structure a good deal the placentar part of the ovum in the earlier months. Now, in some cases, these fleshy masses, are, in truth, nothing more than blighted ova, the result of intercourse; but, in other cases, to my knowledge, they form, month after month, in unmarried ladies of undoubted honour. I will not lay down a decisive diagnostic, lest this should be made use of in any way to injure female reputation, though, I conceive, it is by no means impossible to form a shrewd guess, whether these substances result from intercourse or not.

Moles.

In the uterus, there form, sometimes,[1] other masses of looser or firmer consistency, called moles.[2] Of these masses, some appear to be made up of layers of coagulable lymph, which have been successively poured out under inflammatory action; others, of firm make, resemble the body of a polypus or a scirrhous tubercle, so that, on dividing them, an anatomist would scarcely know the differ-

[1] By Mr. Callaway, a surgeon of acknowledged talents, the uterus of a woman who died from flooding, was once shown in Guy's Hospital, and I there found one of these masses in the main detached, and which was bigger than the fœtal head; this mass, however, though detached in the main, had some connection with the uterus, as I believe most of these masses of firmer consistency have, consisting of cellular web and blood-vessels; but the union was of that tender kind, that you might detach it with the fingers as the ovum might, in the same manner, be detached from the surface of the uterus; and, indeed, the connection between those masses and the uterus seems to be very similar to that which is subsisting between the womb and the ovum. *Dr. Blundell.*

[2] By the term mole, authors have intended to describe very different productions of, or excretions from, the uterus. By some it has been used to signify every kind of fleshy substance, particularly those which are properly called polypi; by others those only which are the consequence of imperfect conception, when the ovum is in a morbid or decayed state; and by many, which is the most popular opinion, every coagulum of blood, which continues long enough in the uterus to assume its form, and to retain only the fibrous part, as it is properly called, is denominated a mole. *Denman's Midwifery*, 7th Edit. p. 73.

Moles, properly so called, must not be confounded either with the remains of the placenta after delivery, or with coagula from catamenia or menorrhagia. Still less should they be ranked among polypi which have broken off at their slender base, and remained unattached in the uterus, or with tumours having a greater or less base, seated inside the uterus and remaining adherent. *Boivin and Duges.*

The older writers called moles "false gatherings or conceptions," and have left us most incredulous narrations concerning them. *Dr. Ryan.*

ence.[1] These formations may be as small as a pullet's egg, and smaller; or large as the head of a fœtus, or larger. There is, generally, one mass only; occasionally there are several, and they may be expelled[2] at uncertain intervals of several days.[3]

Symptoms simulating pregnancy.

Abdominal enlargements simulating pregnancy from molar concretions, assume in many cases so much of the character of genuine impregnation, as to be distinguished with considerable difficulty. In general, however, the abdominal swelling increases in the spurious kind, far more rapidly than in the real, for the first three months; after which, it keeps nearly at a stand; the tumour, moreover, is considerably more equable, the breasts are flat, and do not participate in the action, and there is no sense of quickening. There is almost always a retention of the menses.[4]

Hydatids in the Uterus.

Hydatids in the uterus are sometimes small in their bulk and few, but in other cases they grow in large numbers, and to a great size, so that you may have coming away a quantity sufficient to fill

[1] Moles have been supposed to proceed from coagulum of blood, or portions of the placenta remaining in the uterus; and this opinion is generally true; but there is sometimes reason for thinking, that they are an original production of the uterus, independent of such accidental circumstances, and sometimes the precursors of organic disease in that part. *Ryusch*, *Denman, &c.*

Mr. Hewson explained their cause thus, "from the blood being without motion in the uterus, it coagulates; hence the origin of those large clots which sometimes come from the cavity, and which, when more condensed by the oozing out of the serum, and of the red globules, assume a flesh-like appearance, and have been called *moles.*" *Experimental Inquiries*, part i. p. 27.

Mr. Bromfield describes a mole expelled from the uterus as consisting of a stony mass of the size of a child's head. *Chirurgical Observations and Cases*, vol. ii. p. 156. Hancroft has related a similar case. *Dissert. de Mola.*

La Motte is of opinion, that they may form in women who have not borne children; Hoffman, that they may succeed a natural delivery; and Haller, that they may occur with scirrhus of the uterus.—Ed.

[2] In general, the mole will be expelled about the third month, before the period of quickening, and attended with considerable hemorrhage, in such a degree, that the case is to be managed as a real abortion. The expulsion can be promoted, or rather assisted, by the finger; but great care must be taken not to lacerate the mole, so as to leave any part of it behind. *Dr. Ryan's Midwifery*, 3rd Edit. p. 295.

[3] Moles, wholly, or in fractions, are thrown out by the action of the uterus at different periods, often at three months; more frequently by something like a regular succession of labour pains, at nine; but they occasionally remain much longer: in a case of Riedlin's, for three years; and in one described by Zuingen, for not less than seventeen. *Dr. Good*, vol. iv. p. 261.

[4] Dr. Good's study of Medicine, vol. iv. p. 261.

two or three wash-hand basins.[1] The difference between hydatids which form in this, and in any other part of the body, is this, that in all other parts they have no peduncle, but, when they grow from the uterus, they are always peduncular, being connected by a sort of stalk, something in the same manner as grapes are, to form the bunch. As in other parts of the body, we find hydatids without there having been a connection between the sexes, so, in the uterus, hydatids may, I presume, be formed without intercourse, but, in the general, they are the result of impregnation.

Symptoms of Hydatids.

The symptoms accompanying hydatids are by no means certain, but as the disease is usually the consequence of the destruction of the ovum, the symptoms at first correspond exactly with those of pregnancy, which, however, cease as soon as the ovum is blighted. The breasts become flaccid, gestation sickness passes off, the abdomen increases very slowly, or may be does not enlarge at all. The menstruation is usually suspended, and although in most instances the general health does not participate in the complaint, yet in others, considerable fever and irritation are present.

Hydatids in the Ovum.

When hydatids form in the ovum they are exceedingly small at first, and the ovum disappears more or less ultimately, in consequence of these animalculæ feeding upon it. In all its stages, I have seen this disease. I have known them to exist where there was scarcely a trace of the ovum; I have known them to exist where much of the ovum was still remaining, though the hydatids were large and numerous; and I have also met with one or two cases where, at first sight, what came away appeared to be ovum, but when, on cutting into the ovum, you found that it contained an assemblage of hydatids.[2]

Cause of Hydatids.

The formation of hydatids, either in the uterus or ovum, is the more interesting, as it has its influence over female reputation—a plant so sensitive, that like its emblem in the green-house, it can scarcely bear a touch. When hydatids are forming, you may be sometimes asked, whether their appearance is not a proof of intercourse with our sex? I certainly think, that in most instances,

[1] Hydatids may vary in size from a small seed to the dimensions of an ox's bladder. They may also be single, or aggregated, or contained one within another. Ed.

[2] Dr. Hamilton used to relate that a Dumfries practitioner wrote to him of a wonderful case, where a female, who had aborted, expelled seventeen ova: of course these were hydatids. *Dr. Ryan.*

they result from this cause, but I think also, that it is our duty to declare distinctly that we have no satisfactory proof whatever that they cannot be produced without the approach of the sexes; indeed the presumption, taken from analogy, lies entirely on the opposite side.[1] In most of the other parts of the body, hydatids are produced wholly independently of this cause, and why should they not, in like manner, be now and then generated here.

Treatment of Hydatids.

The treatment of hydatids, so far as they admit of any treatment, is extremely simple. If a woman is supposed, or known to labour under disease of this kind, but suffers no pressing inconvenience, as meddlesome midwifery is bad, and as in obstetricy you may do mischief when you are attempting to do service, I would recommend you to abstain from interfering altogether. You may give a little medicine if you please, but take care you do not give any that will do injury. Again,—if the *pains of parturition should supervene*, and they are likely sooner or later,[2] to assail the patient, and if these masses are coming away of themselves, again, as meddlesome midwifery is to be proscribed, I recommend you to sit by the bed-side, and to suffer Nature, the great obstetrician to proceed in her own method. But what if a great eruption of blood should occur? Why, in these cases, if the parts are rigid, the introduction of the hand is unjustifiable; for contusion and fatal laceration must be the consequence. The practitioner, therefore, in such circumstances, should sit at the bed-side, frequently examining to ascertain whether relaxation has been effected. If the parts are lax, and the introduction of the hand is easy, then the uterus should be emptied by the operation of the hand; for although it is true that risk must attend the operation, and though, too, the risk of tearing the womb or the vagina may be greater in these cases than in ordinary floodings, owing to the thinness of the parts, yet nevertheless, if the flooding is large, there may be less danger in a delivery by the hand, than a delivery, if so it may be called, effected by the unaided power of the womb.

[1] The expulsion of hydatids has been mistaken for abortion, even by the justly celebrated Dr. Cullen. Dr. Hamilton stated, in his lectures, that one of his father's patient's being ill, Dr. C. was called, in his absence, and declared the lady had miscarried. This opinion was the innocent cause of destroying domestic happiness in that family ever afterwards, as she and her husband had lived separately for two years. On Dr. Alexander Hamilton's return he declared the bodies expelled were hydatids, and that there was no abortion; but the parties were never after happy. *Dr. Ryan.*

[2] The duration of the complaint varies very considerably. I have observed the disease continue for fourteen years: I have seen it so early as the tenth year. The tumour will often burst, after any sudden and violent exertion, and the abdomen will become suddenly diminished. *Dr. Ryan.*

Treatment of Moles.

The management of the form of disease, in which moles are generated in the uterus, turns on the same principle as the treatment of hydatids; that is, if the womb is known to contain this growth, and no pressing symptoms occur, the practitioner ought not to interfere. If pains assail like those of parturition, provided there is no flooding, you may safely trust to the natural efforts for the evacuation of the contents of the womb; if there is rigidity with flooding, so that the introduction of the hand might lacerate and destroy, you must wait at the bed side of the patient, frequently examining, to ascertain if relaxation has occurred; and if relaxation concur with the flooding, and the floodings be dangerous, the sooner you deliver by the hand or instruments, the better, provided this be practicable, and without violence. But is it not, in many cases, impracticable? Moles are not, I think, in general attended with dangerous floodings. To all these cases the general principles of flooding deliveries will apply, and to them I must refer you.[1] Of course no means of checking bleeding must be left untried. In giving a prognosis remember, that with mole other disease is sometimes combined, as tubercular scirrhus of the womb or ovary, or both.

SECTION XL.

APPEARANCES OBSERVED IN THE OVARY.

The obstetrician is sometimes requested to decide, from examining the ovary, whether impregnation has taken place; and it may not be amiss, therefore, that I should make a few remarks on the appearances observed in the ovary.

Form and surface of the Ovaries.

In form, the ovaries bear a considerable resemblance to the body of the testis, in our race especially, and hence they have formerly been denominated the *testes muliebres.* Like the features of the face, these ovaries differ exceedingly in their size in different females, being three times as large in some women as they are in others, and we must not, therefore, hastily conclude, that the ovaries are diseased, merely because we find them larger than ordinary. Again: in some women, these ovaries are of smooth and somewhat polished

[1] Principles and Practice of Obstetricy, p. 306, 307, &c.

surface, like the testis of the male; in others, however, they are remarkable for their rugosity. In some women, further, the surface of the ovaries presents no appearance of cicatrix, but in others, and not infrequently, there are, on the surface, small wrinkled scars, probably produced, in many cases, independently of impregnation, from spontaneous rupture of the vesicles, or small eggs, with which the substance of the ovaries is filled.

Composition of the Ovaries.

If we lay open the ovary, we find it composed of a parenchyma, and the peritoneal covering in which this parenchyma is enclosed, to say nothing of a tunica propria. Now, in some ovaries, this membranaceous covering is thin, and tends to transparency; while, in others, it is so thick that it reminds one of a piece of parchment, and this, too, without any consequent disorders of the system which might lead us to consider the patient as the subject of disease. With this thickening of the coverings, a certain degree of whiteness and opacity is occasionally combined. In many animals of the mammiferous class, the eggs may be seen distinctly;[1] but in the human ovary, when recently removed from the body, the vesicles cannot, in general, be seen through the membranaceous surface, although, in some less common instances, when the tunics are remarkably thin, and the ova are remarkably plump and mature, they may be seen, more or less obscurely. The bulk of the ovary, internally, is composed of cellular web, sometimes long and lax, sometimes of firmer texture; and this cellular web (as injection shows) is plentifully supplied with minuter capillaries. In this cellular web are found various appearances, which, so far as they deserve our notice, may be divided into three kinds; I mean the *corpuscula serosa*, the *corpuscula livida*, and the *corpuscula lutea.*

Corpuscula Serosa.

Vesicles, called *corspucula serosa*, filled apparently with a serous fluid, are found in the cellular web, in size varying between that of the mustard seed and a large pea; sometimes very conspicuous, occasionally obscure; sometimes few in their number, occasionally several, though I have seldom observed in either ovary as many as ten or fifteen at a time; sometimes the small spherical cysts which form them are coriaceous; and, at others, delicate and thin, and containing obvious, though small, red blood capillaries. I am not sure that every vesicle is contained within another, in a manner

[1] Sometimes, as in the sow, they form an assemblage of small tubercles, rising beyond the surface of the ovary, but more generally, as in the rabbit, they are embedded in the body of the viscus, but may, nevertheless, be seen distinctly, like the small pearls which the jeweller sets upon the posy of a ring—a comparison which those who have seen the ovary of these animals must, I think, allow to have some aptitude. *Dr. Blundell.*

analogous to the calyx in the ovary of the common fowl, but I suspect this. I am not sure that the vesicles disappear in old age; but certainly those are in error who maintain that they are not to be found before puberty, for I have seen them distinctly in the ovaries of a female child, not above a year and a half old, and I presume that they may generally be found at this age, perhaps as conspicuously as in women during the child-bearing period. Besides these embedded serous vesicles, there are found also vesicles which are marginally connected with the ovary, or which are completely detached from it, lying between the folds of the broad ligaments at the distance of one or two inches, and usually about as large as a full sized pea, so that these vesicles may be conveniently divided into three kinds; the imbedded, the marginal, and those which lie detached. The larger vesicles seem to be in a state of incipient dropsy.

Corpuscula Livida.

Again, in the substance of the ovary, we meet sometimes with *corpuscula livida*, as they may be called, and these too are not without their obstetric interest. Of these corpuscula livida, some consist of large vesicles filled with a clot of black or deep red blood; some of the vesicles are empty, but superficially covered with a deep-red or dark leaden tint, as if they had been coated with paint; some, lastly, are made up of mere molecules, or specks of various tint, red, purple, or of almost atramentous blackness. Like the serosa, therefore, these corpuscula livida may be divided into three kinds; the vesicle filled with clotted blood; the empty vesicle, the surface of which is coated with a deep tint, red, purple, or atramentous; and the solid molecule, of various situation in the ovary, and of the same tint as the preceding. Several of these corpuscules may exist in the ovary at once. The rupture of blood-vessels appears to give rise to them, and the tint is apparently derived from the colouring matter, and the carbonaceous material of the effused blood.

Corpuscula Lutea.

In the ovaries we also find, in the third place, *corpuscula lutea*, as they may be called; the tint of these bodies varying exceedingly, but ranging generally between that of a bright lemon, and of a dark-coloured orange peel; to which I may add, that, in their obscurity or conspicuity, there is, too, in these corpuscula, no small degree of variety; some of them striking on the eye, directly the ovary is laid open; and others requiring for their discovery some little research. Of these bodies, as of the serosa and livida, we meet with different kinds, the larger and more solid, the vesicular, and the mere specks or sparks—not to mention the variety in their bulk. In the ovary we occasionally see mere sparks of various yellow

tint, forming points more or less conspicuous in different parts of its substance; these forming the first variety of these yellow corpuscules. The ovary, too, sometimes contains vesicles which are, I suspect, often empty, and which are coated with bright yellow in the same manner as the livid vesicles are with the red. These vesicles of different size, varying in their dimensions between the pea and the mustard seed, vary also in the colour of their yellow paint, which may, I believe, present all the different tints observed in the other corpuscula lutea. In the ovaries, lastly, we sometimes meet with solid bodies of a colour more or less yellow; the larger about as big as the kidney bean, the smaller about the size of a small pea, or smaller, though it may be observed that when they get below this size, these solid bodies may properly range among the specks or molecules before noticed. Of these solid bodies there are two kinds, the fabiform and the spheroids. Of the tint of the *spheroids* I have some doubts, but I believe they generally tend to the yellow colour; they usually contain within them, if I may judge from my preparations, a globose cavity, and the surface of the substance exposed by section all round the cavity is marked with radiating lines or striæ, which give it something of a fibrous appearance. The *fabiform* bodies, which are far more interesting, on account of their frequency, and for a reason presently understood, resemble, when divided, the half of a kidney-bean in their shape, whence the name I gave them, and contain within them a shallow cavity, which reminds one of the printer's asterisk. Of these bodies, the tint is yellow, sometimes decidedly, sometimes obscurely, and between the two extremes are many grades; the more frequent varieties of yellow may be compared with those of the lemon peel, or of the orange, which has been long in the chest. When the ovary is well injected, the yellow mass being full of vessels, becomes of a deep red tint. In the size of these bodies too, there is much variety; the larger are equal to the kidney-bean, the smaller to a small pea; there are, indeed solid bodies presenting the characters enumerated, and which are not larger than the mustard seed; but, in the present survey, it is better to throw them out of notice, or to range them among the yellow sparks or specks before noticed. These fabiform corpuscules constitute what are properly called the *corpora lutea;* and generally, if not always, where they lie, a cicatricula, or small wrinkled scar, will be found on the surface of the ovary immediately above.

SECTION XLI.

OVARIAN SIGNS OF IMPREGNATION.

Having, in the last section, described the various appearances in the ovary, so far as they are interesting to the obstetrician, we will now apply this knowledge to the consideration of a point not without its interest, I mean the discrimination of those ovarian appearances which are, or which are not, to be looked upon as the indications of intercourse with our sex.

Wrinkled cicatrix and corpusculum luteum.

In investigating the ovarian signs of impregnation, we may set forward at the outset by observing, that of all the appearances which we have enumerated, the wrinkled cicatrix, and the corpuscula lutea alone, have, in the present state of our knowledge, a claim to be considered as the indications of impregnation; and even of the wrinkled cicatrix here mentioned, it may be further observed, that standing alone, independently of the corpusculum luteum, it has no claim whatever to be considered as an indication of intercourse or of impregnation. These cicatriculæ, it is true, render it not improbable that the Graäffian vesicle may have given way, but even when they exist alone, we have no proof that these ruptures may not occur independently of cohabitation. In judging of impregnation from the appearances in the ovaries, I should place no reliance on these wrinkles and cicatriculæ whatsoever.

Corpuscula Lutea.

Again, the yellow bodies, or corpuscula lutea themselves, are not indiscriminately the indications of intercourse; indeed, of the three kinds of bodies enumerated—the specks—the vesicles—the solid bodies—the latter only are deserving of attention. With respect to intercourse, the yellow *vesicles* prove nothing, or, if any thing, the negative; for these yellow substances, I feel persuaded, may sometimes, and probably do often appear, where intercourse has been unknown. If I am wrong here, future observation must correct me.

Solid bodies.

So also, of the solid bodies, spheroidal and fabiform, the fabiform only may, in the present state of knowledge, be looked upon as indicating the connection of the sexes; for though I dare not deny that the striated spheroids before described, may be produced by impregnation, yet we have at present no proof of this, and to some, perhaps, it may appear that they are rather the consequences of incipient

disease, than of fruitful intercourse; but others must hereafter decide this point.

Fabiform yellow bodies.

And lastly; even of the fabiform yellow bodies, the larger only deserve much reliance, as indications of intercourse and impregnation, and unless they are as large as the split pea, or larger, I should pass them by, as wholly undeserving of our confidence. Among other preparations, I have one consisting of two ovaries, in one of which may be seen a single luteum, in the other no fewer than three, in colour, form, and character exactly similar to the corpus luteum of conception, only the largest of them is little bigger than a mustard seed. Now these two ovaries were taken from a girl under seventeen, who died in Guy's Hospital from chorea, with a hymen unbroken, and a womb without any traces whatever of pregnancy, as careful inspection showed; so that the jealousy of an eastern seraglio, if not associated with eastern ignorance, might have been satisfied, that repeated impregnations could not have taken place; nay, that impregnation could not have taken place at all, and yet there are as many as four corpuscula lutea; so that this case alone fully satisfies me that the evidence of the smaller lutea cannot be relied on.[1]

Conclusion.

After all that I have said, we now come down to this simple conclusion, that corpora lutea of fabiform shape, and large or larger than the pea, are alone deserving of confidence as the indications of impregnation; to which may be added, that the force of this testimony will be strengthened, provided a superficial and wrinkled cicatrix be observed on the ovary above the yellow mass. However, without wishing to run headlong into wanton scepticism, I cannot forbear intimating a suspicion that a corpus luteum, even with all these conditions, cannot be relied on, with absolute certainty, as an indication of impregnation, at least in animals; for Mr. Saumarez mentions that the corpus luteum may be made to appear in the ovary of the rabbit, merely by keeping the male and female within sight, without, however, being within communication with each other; and in the vaginal and uterine experiments, related at large when I treated of impregnation,[2] I had ample opportunities of learning that, in the rabbit, corpora lutea may form in large numbers, and possessing, in the most marked man-

[1] The corpuscus luteum has been found in women who had never conceived, by Rœderer, and in virgins by Haighton, Vallisnieri, Santorini, Bertrandi, Sir E. Home, B. Brugnone, and Cruikshank; in mules by Brugnone; and in animals whose fallopian tubes were tied before coition, by Haighton. *Dr. Ryan's Midwifery*, 3rd Edit. p. 63.

[2] Principles and Practice of Obstetricy, p. 60.

ner, all the characters of the luteum of pregnancy—and all this from intercourse with the male—under circumstances that put the impregnation quite out of the question. With respect to the rabbit, therefore, I feel fully satisfied that the genuine corpora lutea, not to be distinguished from the lutea of impregnation, may be constantly produced at pleasure, without such intercourse as may prove fruitful, and give rise to the formation of a new structure; and, if I may rely on Saumarez, I must go further, and presume that in this animal the lutea may even form without intercourse, from the mere excitement of desire in a high degree. Whether, however, the luteum, with all its prescribed conditions above laid down, may form in the *human* ovary without intercourse altogether, or even without such intercourse as may produce impregnation, I am not prepared peremptorily to decide. I prefer the cautious manner of the academics, to the decisive manner of the dogmatists, and I shall, therefore, content myself, in the conclusion, with expressing my persuasion merely that the fabiform corpus luteum, with asteriscal cavity—of yellow colour—large as a pea, or larger, and seated beneath a cicatrix formed on the corresponding surface of the ovary, may be looked on, in the present state of our knowledge, as a strong presumptive proof of impregnation; adding, however, at the same time, that I conceive a jury ought to be cautious of giving too much weight even to this evidence, when human life is at stake. This yellow body seems to be formed in consequence of the change which conception produces in the *Graäfian vesicle.* It is to this yellow fabiform body that I would confine the technical appellation "*corpus luteum.*"

SECTION XLII.

HÆMORRHOIDS OR PILES.[1]

Women frequently become the subjects of diseases of the rectum, and though they do not belong, in strictness, to obstetrics, yet I am induced to make a few remarks upon them, as they are brought more especially under the notice of the obstetrician.

External and Internal Piles.

When a woman becomes the subject of hæmorrhoids, she has tumours lying externally or within; hence the disease has been divided into the *external* and *internal.*

[1] Described by modern writers under the name of *hæmorrhois*, whence *hemerods* and *emrods* in old English, and *hemorrhoids* in the English of our own days.—*Dr. Good*, vol. i. p. 345.

Cause of Hæmorrhoids.

The cause of these hæmorrhoidal swellings is not always distinctly stated; indeed, it seems that they are not occasioned by any one single cause only, but result rather from a combination of different causes, which may operate in different degrees on different individuals, or in the same individual under different attacks.[1]

The principal cause of the *internal* piles seems to be an elongation and expansion of the inner membrane of the rectum, which becomes broader and larger than it was in health, and thereby spreads out; a thickening of the membrane, a varicose state of the veins, to which may be added occasional inflammation, with all the tumefaction which is the result of the inflammation. Now, when all this takes place, and the inner membrane of the bowels descends, whether at other times, or during the evacuation of the contents of the bowels, a fit of the hæmorrhoids may be said to exist, and a tumour sometimes appears at the verge of the anus, as large as the pullet's egg, or larger; and this tumour may continue to lie forth, or, as in most cases, it may be easily reduced by a little pressure of the fingers. The intumescence of *external* piles appears to be produced, first, by an elongation of the delicate skin which lies around the anus externally; secondly, by a varicose state of the veins; thirdly, by inflammation giving rise to ordinary tumefaction, and which may ultimately occasion a deposit of adhesive matter, which may become organized, and lay the foundation of permanent tumour, the bulk of which may vary with inflammation. When the patient is not under the fit of the disease, the expanded integument may contract itself—the vessels also may shrink; the inflammation ceasing, the swelling may subside in good measure, like an inflamed swelling on your fingers, and thus the appearance of the disease may in good measure vanish.

Hæmorrhoids usually a solitary disease.

In general, hæmorrhoids are unaccompanied with any other graver affection; nor is it often that it destroys life, though, by impairing health, it may go far to destroy the happiness of the patient. It is not always, however, that hæmorrhoids are a solitary and independent disease. Carcinoma of the rectum, stricture of

[1] With pregnant women, hæmorrhoids may be partly owing to the pressure of the womb upon the vessels of the pelvis, but are chiefly to be attributed to a sluggish state of the intestinal canal, communicating a similar torpor to the hæmorrhoidal veins.—*Dr. Burns.*

The disease is sometimes met with as a symptom or sequel of parabysma, (indurated and enlarged abdominal viscus,) gout, asthma, rheumatism, various affections of the bladder, hypochondrias, hysteria, and ecphronia, or insanity. It is also said, by some writers, to be, in a few instances, hereditary; and, as such, to appear in infancy or at an early age, chiefly, however, in connection with gout or a gouty diathesis.—*Dr. Good*, vol. i. p. 347.

the rectum, prolapsus of the uterus, procedentia of an enlarged ovary, not to mention other concurrent accidents of less importance,[1] are now and then observed; nor must we lose sight of this, when we are endeavouring to investigate the morbid anatomy of this disease.

They usually attack the patients by fits.

Hæmorrhoids usually attack the patient by fits: for weeks she may labour under them, and for weeks together she may be free from them. As with the catamenia, so with the hæmorrhoids, though far more rarely, there may be an evident transfer of action from the head to the rectum. Previous to the attack, the head may have been as giddy and aching as in cases of amenorrhœa, and when piles come on, all the cephalic symptoms may be very much in the same manner, as by a flow from the uterus.

Blind Piles—Bleeding Piles.

Under an hæmorrhoidal attack, patients are sometimes affected with the tumours merely, without bleeding, and accompanied with shooting pains, which may cause them to complain severely: now those constitute what are denominated, by the lower classes of society, the *blind piles*. In other cases, where there is a smart attack, there is, too, a discharge of blood; that is, one or more of the varicosed hæmorrhoidal vessels, veins, or arteries, opens, and it is from those vessels that the discharge takes place; hence, this variety is commonly called the *bleeding piles*. The quantity which escapes is various—sometimes, however, large: a pint, a quart, a greater measure, may be effused, and much alarm may be occasioned by the consequent collapse, though death itself is rare. If the hæmorrhoids are external, the blood gets away immediately; but if they are internal, the blood discharged may coagulate and come away by the forcing of the patient, who supposes that the ordinary contents of the bowels require evacuation, and is greatly surprised and alarmed to observe a large effusion of blood.

Effects of Hæmorrhoids on the constitution.

Under the milder attacks, the health may be very good, and its relief of the head may render it desirable; but where the attacks are frequent, and the eruptions of blood large, there the health may be very greatly reduced—debility, irritability, dropsy, nay, in some

[1] A discharge of mucus from the vagina is a concomitant symptom of the piles; for the internal iliac artery supplies both the hæmorrhoidal vessels and those about the vagina with blood, and it will be difficult to restrain this discharge whilst the hæmorrhoidal tumours continue.—*Sir C. M. Clarke.*

The labia and the nymphæ are also apt to be more swelled, from their vessels being distended.—*Ibid.*

cases death itself, being the consequence. It deserves your notice, however, that although great reductions of health have been known to take place, yet it is very rarely that persons die under the disease; they are often supposed to be in danger, but in most cases, I think, they escape a fatal termination.

Treatment.

In treating an attack of hæmorrhoids, it should be your first endeavour to satisfy yourselves that the disease is hæmorrhoids merely, and, more especially, that it is not piles joined with a large accumulation of fæces in the rectum—with stricture of the rectum—with carcinoma of the rectum—with prolapsus of the enlarged ovary, or with disease of the womb, as your practice would be very much influenced by these complications, and of course your prognosis.

General remedial measures.

In hæmorrhoids, it is of great consequence, whether the attack be simple or connected with other diseases, that the bowels should be kept open; and many of the slighter attacks will be relieved by the use of the milder aperients—as castor oil, manna, rhubarb, sulphur, and other laxatives of milder operation; for, in general, unless particular symptoms require them, the more urgent cathartics, and especially aloes, should be avoided when under the attack of hæmorrhoids. Where there is a large swelling and inflammation, leeches should be applied; you may also apply cold water, take away blood from the arm, and, in short, treat the inflammation as you would an inflammation in any other part. It is said, that you may very effectually relieve the piles by making a few punctures in them with the lancet, so as to take away a little blood from the part; and the patient may be taught (provided she is a woman of a little spirit) to perform this operation for herself. You will sometimes find there is a vast deal of pain in the pelvis, felt more especially in the rectum. Hæmorrhoids in this state may be called the irritable, and there is, I suspect, in many cases, vertical fissure of the membrane lining the anus. If fissure exist, it may be ascertained by examination, and should be treated as hereafter recommended; if there is mere irritability, leeches and other anodynes are proper. Anodynes may be taken into the stomach, or else, in the form of a suppository, they may be introduced into the rectum; but I suspect you will find, if you mix up soap with the opium, which is the way a suppository is generally put into the rectum, a good deal of pain will be produced, and it may not remain there. Some other mode may then be tried, and a very convenient method of administering the anodyne is, by mixing up with four or five drams of mucilage, two or three grains of opium, which may lie there, though a very large injection would be immediately returned. For these injections, a small syringe may be used.

In the treatment of *bleeding* piles, where the head is relieved by the bleeding, it may be better to leave the hemorrhage unchecked; for a loss of blood from the rectum is certainly far preferable to the risk of an apoplexy. Often the attack of piles is foreshown by a throbbing in the parts; and in these cases you may, I suspect, reduce the subsequent, or totally prevent the attack, by the application of ten or twelve leeches. If the head were much affected before the attack, I would not do this, but would rather suffer the piles to appear, and the bleeding proceed; but, in the majority of cases, the head is not much affected, and preventive means may be used; for I can at present by no means accede to the opinions of those who consider that hæmorrhoids are frequently constitutional. When piles become old and indolent, they lie about the entrance of the bowel, and are sometimes not removed for a considerable length of time. Dr. Munro, of Edinburgh, used to recommend strongly an ointment, which consisted merely of the galls mixed up with spermaceti ointment, in the proportion of a dram to an ounce. Extirpation by the knife can rarely be required.

Extensive hemorrhage from Piles.

If the piles bleed very largely, so that life should seem to be endangered, the most effectual method of ascertaining and relieving the cause of the hemorrhage would be, by inspecting the rectum, whether by a *speculum ani*, or otherwise; sometimes under urging, the bleeding parts may be brought into sight, and then the parts being under view, you might take a ligature and tie them up, when there would be an end to the bleeding, at least for a time: the operation is painful, but not dangerous. Mr. Copeland has applied ligatures to the inner membrane of the rectum, in more than two hundred cases, and never, I believe, in one instance, lost a patient in consequence. You had better, however, try the other remedies before you resort to the ligature. Pressure and cold water, together with the usual remedies of flooding, being the principal.

Reduction of protruding Piles.

When hæmorrhoids descend from within the bowel, and pass forth through the anus, they ought to be immediately replaced. The effectual mode of doing this is not known to many, which is, first, to bear the piles upwards, and then, secondly, a position as if the contents of the rectum were to be evacuated: this opens the anus, and the parts immediately ascend. This little manœuvre is well worth recollection; nothing can be more unwise than to make an effort to draw up the rectum when the replacement is attempted. This effort is always attended with constriction of the anus, and thus the reduction is rendered impracticable.

Specifics.

Lastly, in hæmorrhoids, there are certain medicines of the milder kind, which are recommended as specifics—such are sulphur, copaiba, and especially Ward's paste,[1] which seems to be a healthful stimulus to these parts.

SECTION XLIII.

PROLAPSUS ANI.

You will sometimes find patients affected with another disease—a modification of the internal piles—*prolapsus ani*, as it is called.

The internal membrane alone descends.

Now, in prolapsus of the rectum, you are not to suppose that all the three textures of the bowel—mucous, muscular, and peritoneal—descend; for the lower extremity of the rectum is wholly destitute of peritoneum, and it seems to be nothing more than the inner membrane that comes down, sometimes one inch, sometimes two, or three, or four; and where there is a great deal of thickening of it, and much enlargement of the veins and arteries, the mass altogether may constitute a large puffy swelling, recognised immediately by an inspection, or even by the touch, provided the mind is previously alive to the probable nature of the disease.

Habitual constipation its most common cause.

The most common cause, by far, of this most troublesome affection, is habitual constipation, and much of that effort of the bowels which is called tenesmus. Naturally, as you see in the horse, the parts protrude a little way when the contents of the rectum are expelled; but if there is a great deal of urging down, and if, owing to the feculent matter being very large and hard, it pass with much pressure, there is a disposition to a larger descent than is consistent with health, and, by repeated urging and descending, the inner membrane may become so greatly elongated, as to lay the foundation of a very grave form of the disease.

[1] Black pepper, elecampane root, of each, *one part;* honey, white sugar, of each, *two parts;* sweet fennel-seed, *three parts;* a piece the size of a nutmeg to be used three or four times a day.—*Ed.*

Palliative remedies.

The most powerful remedies to be used in the way of palliation, are the following: in the first place, let the bowels of the patient be moderately relaxed, so that the evacuations may be pulpy, instead of being large and indurated, and that they may pass away without effort; manna, castor oil, sulphur, and a little senna electuary, or any of the milder laxatives, may be used for this purpose; secondly, you should explain to the individual the effect which tenesmus or constipation has, both in inducing and aggravating the disease; and a principal rule, therefore, to which she is to attend, is this, that she should on no account give way to the disposition to urge. When labouring under this disease, and the patient passes her fæces, the inner membrane may descend a little way, and even the anus, and this produces a feeling that there is something more to pass, which may induce more urging, and a further descent and desire to urge. On no account, therefore, is this forcing to be continued; but as soon as the contents of the bowels, wholly or in a great measure, are passed, all further efforts of urging should be restrained. Again: when the rectum descends, you should direct your patient to get into the habit of refraining, as much as may be, from contraction of the sphincter ani, till the bowel has been replaced; for the sphincter ani is, in good measure, a voluntary muscle; and if, when the bowel is down beyond the anus, this muscle is strongly contracted, a strangulation of the part ensues. I have already explained to you what is the best mode of replacing the prolapsed part; I mean, by forcing down, upon the one hand, so as to open the anus more widely, and, on the other hand, bearing the bowel upwards, while the anus remains relaxed. This operation ought always to be performed when prolapsus exists, without the needless delay of one moment; for the longer the parts lie forth, the more injury they are likely to sustain.

Medicines to strengthen the parts.

In prolapsus ani, we are recommended to use medicine to strengthen and brace up the parts, but I believe it rarely happens that those remedies are of any use. Cold water, astringent washes, and analogous medicines, may be tried; they will amuse the patient, and tend to soothe her mind, and may, therefore, be looked upon as so far valuable, but they will do nothing more.

Treatment of the severer form of Prolapsus.

So far as the preceding observations go, they are directed to the principal points of treatment which I should recommend to your attention, in the milder and ordinary attacks of the disease; but I will now suppose that the patient labours under an attack of the

severer form; that the bowel descends a considerable way; that there is a great deal of bleeding, insomuch, that the general health is greatly impaired by it; and, further, that the attack is altogether so distressing, that the patient is anxiously desirous to obtain a radical cure. What then can be done?

Removal of the diseased parts by the knife.

Why, in cases of this sort, it has been advised, that with the knife or the scissors we should cut away the diseased parts; but this is, I believe, allowed to be, in some cases, an operation of no small danger, as patients have perished repeatedly in consequence of the subsequent hemorrhage. I understand that some of our great surgeons do not scruple to state that they have lost more than one patient in this way.

Removal of portions of the inner membrane by ligature.

Since the removal of the diseased parts by the knife or scissors is frequently fatal, you may naturally ask whether there is no other mode of affording any relief? Why, yes, there is a very simple and a very beautiful operation, with which, I believe, I first became thoroughly acquainted from the information of Mr. Copeland, to whom I am indebted for some very valuable knowledge respecting this troublesome disease. The bladder is to be emptied, the bowels are to be cleared, the patient labouring under the prolapsus to make efforts until the inner membrane pushes down into sight, and then the practitioner inspecting the parts which descend, and observing that there are one or more portions of it which appear a great deal redder than the rest, and from which the blood oozes, he takes a *tenaculum*, and, with the help of an assistant, draws forth this part or fold, and keeps it on the stretch; and then taking his ligature of common silk, he ties up this part—a fold of the inner membrane—as tight as may be, cuts away one end of the ligature, and leaves the other. If the whole can be contained within one ligature, it is well; if not, it is necessary that two or more should be applied, one end of the ligature being left long, so as to hang forth at the anus, and the other being cut away close upon the knot. After this, an effort is made by the patient to open the rectum, and by the help of pressure the parts are easily replaced.

After reduction of the bowel, all is to be kept quiet, and, by the administration of opium, evacuations should be prevented till the ligatures come away. Under this treatment, no dangerous symptoms occur. After the ligature has been applied, and the parts have been replaced, we ought to keep the bowels at rest, and to subdue the pain, as far as may be, by the administration of opium, according to the effect produced; nor is it, in general, till the ligatures come away, that the bowels ought to be suffered to act. The first evacuation often gives great pain, but every succeeding effort

is easier, till the healthy feeling of the part is restored: castor oil is, perhaps, the best aperient. The more the membrane descends, the more likely is the operation to succeed; for the cure seems to depend on an adhesive inflammation, which fixes the prolapsing membrane to the muscular tunic of the rectum which remains above; and the more the membrane descends when down, the higher will it ascend when replaced, and the greater will be the distance of the ligature, and the consequent adhesion above the anus. When an adhesion has been formed near the anus, there is a risk lest the parts above should double over it and come down. The pain which follows the operation is sometimes very severe and alarming, especially if the opium is not begun early enough, nor given largely enough. I never saw any urgent danger arising from the operation, but my experience is not by any means extensive. Mr. Copeland (who has, I believe, performed it in one or two hundred cases, if not more) tells me that in no one instance does he recollect its proving fatal. Like other operations, this, I presume, fails now and then, but failures are rare; in general, it prevents the further descent of the membrane, puts a stop to further bleeding, even where gallons of blood have been previously lost, and is followed frequently by a very complete re-establishment of the health, unless it have been previously ruined by the hemorrhage.

SECTION XLIV.

FISSURE OF THE INNER MEMBRANE OF THE RECTUM.

Another variety of disease about the aperture of the rectum, which deserves observation from us, is fissure of the inner membrane, vertical or oblique—single or repeated.[1] Patients labouring under this affection are often supposed to labour under uterine disease—as prolapsus, for example, or cancer, or some anomalous uterine affection.

Symptoms.

It is usually by paroxysms that the disease makes its attack, and then the patient suffers excessive uneasiness about the centre of the body; and there may be shootings, throbbings, bearings, and pains, not easily described: when in the sacrum, pain above the fold of the thigh, frequent desire to pass the water, relieved sometimes by

[1] It is to Mr. Copeland that I am indebted for most of what I know respecting this disease. It is not uncommon, and is, I believe, frequently misunderstood.—*Dr. Blundell.*

recumbent posture, and an approximation of the knees and bosom, aggravated exceedingly by the passage of solid and indurated substances from the bowels, and perhaps first brought on by this cause.

Diagnosis.

Careful examination detects the fissure, or the cicatrix of a former fissure. For weeks together after an attack, the patient may remain comparatively well. If the attention is not vigilantly alive, you may long remain ignorant of the nature of this disease, supposing the patient to labour under prolapsus, cancer, irritable piles, affections of the bladder, vagina, symphisis pubis, or other parts.

Treatment.

When once understood, it is easily remedied; first, by keeping the bowels in a soluble state, and then, in the second place, by directing the patient to apply to the anus some gentle stimulus, which may encourage the healing process. Some of the best I know of are the mercurial—an ointment made with the unguentum hydrargyri nitratis, properly weakened, to be diligently applied to the part, and repeated three or four times in the day.

SECTION XLV.

MENSTRUATION.

Women, and women only, during the child-bearing period, are liable to a periodical discharge from the uterus, constituting what is called menstruation.[1]

Periodical return and duration of the discharge.

Not to mention the solar month, this discharge may occur every three, four, or five weeks, for the term varies in different women. Periods of three weeks are by no means uncommon; those of five weeks are rarer, but most commonly the catamenia return every four weeks with such exactness, that they commence for years together on the same day of the week—perhaps, too, on the same

[1] The menses are, in common language, designated *the flowers*, *courses*, *change*, and the like; and during the continuance of the flow of this uterine fluid, the woman is said to be *unwell*, *out of order*, *to have them on her*, and so on; or if she has not the discharge at the expected period, she will tell you *she has not seen them or any thing*, for such and such a time, or that she is *irregular*, or so forth.

part of the day. The duration of this discharge is various—it may average about five or six days; sometimes it is of eight, sometimes of ten, and sometimes of three or four days only: now and then there is a day of intermission, when it may cease entirely, afterwards returning and continuing, so as to complete the period.

Quantity and nature of the secreted fluids.

In the quantity of the evacuation there is no small difference. Some women of robust constitution have a more sparing discharge—others of spare and delicate habit often menstruate more copiously; the average measure has been stated as ranging from six to seven ounces, but whether this be correct or not, I am not prepared to determine.[1] The discharge, though of red colour, does not consist of blood; for though small concretions are now and then observed, yet, in the main, it is not found to coagulate, so as to form clots, or so as to harden the textures which are imbued with it. It sometimes happens, from obstruction of the os uteri or vagina, that the catamenia are retained for months, or even for years, when pints or quarts may be collected in the uterus; when this is the case, the fluid thickens, and, like treacle, becomes more or less viscous, but it never coagulates like blood;[2] and hence we may venture to infer, that though red, and apparently sanguineous, still this fluid is not truly of the nature of blood.[3]

[1] Although the quantity may vary, yet Dr. Denman considers there is a common quantity, to which, under the like circumstances, women approach; and he estimates it in this manner: supposing the quantity be about eighteen ounces in Greece, and two ounces in Lapland, there will be a gradual alteration between the two extremes, and in this country it may amount to about six ounces.—Ed.

The average quantity discharged is generally about four or five ounces. It was commonly thought that the usual quantity was twelve or fourteen ounces, but this will depend very much upon the strength of the patient. Those who are of a robust constitution will discharge a lesser quantity than those of a spare and lax habit.—*Dr. Haighton's M. S. Lectures.*

[2] Mr. Hunter imagined that the menstrual discharge, however long retained, did not coagulate, because it lost its living principle during the secretion; but Dr. Dewees contradicts this opinion, on the ground that the uterine fluid is thought to resist putrefaction longer than common blood.—Ed.

[3] Mr. Brande analyzed the catamenial discharge, collected from a patient, with prolapsus uteri, and which was, consequently, free from admixture of other secretions. It had the properties of a very concentrated solution of the colouring matter of the blood in a diluted serum. No globules could be discerned.—*London Practice of Midwifery.*

That it is not blood, seems sufficiently evident, from its scarcely possessing one property in common with it, not excepting colour—for even here there is not perfect agreement; for, while the colouring matter of the catamenial discharge is permanent, that of the blood is not so.—*Ashwell on Parturition*, p. 90.

Menstruation associated with aptitude for impregnation.

It is during the child-bearing period of life only that the discharge flows, therefore it is most probably associated, in the way of cause and effect, with aptitude for impregnation.[1] Before puberty there is no menstruation, and after a term of some thirty years, when the powers of fecundity are lost, the menses are found to cease more or less suddenly; impregnation, however, may certainly occur though the catamenia have never appeared.[2]

Commencement and cessation.

In the warmer climates, the discharge begins very early, because puberty is precocious, and at ten years of age, or earlier, impregnation may, I am told, take place. On the other hand, in the colder climates, the action of the uterus begins much later; and it is asserted, that in those countries which lie nearest the polar ocean, the menses do not first make their appearance till girls have reached the age of seventeen or eighteen years.[3] In this country, it is usually about the twelfth, thirteenth, or fourteenth year, sometimes sooner,[4] and sometimes later, that the catamenia commence; and it is about the forty-fifth year, earlier in some cases, and later in others, that the menstruation ceases.[5] Many females continue to menstruate till they are nearly fifty; in some few the action ceases before forty. I believe it holds good as a rule, though I have not ascertained this fact myself by any very exact or nume-

[1] A case is related in the *Transactions of the Medical and Chirurgical Society of London*, by Dr. Martin Wall, of a child aged *nine years*, having menstruated regularly from the age of *nine months;* in whom also all the symptoms, which attend *puberty*, were present before she was two years old.

[2] A lady whom I shortly attended for hepatitis, told me that she never menstruated before her first delivery, and that the catamenia have even subsequently appeared only during pregnancy. Ed.

[3] In Greece and other hot countries, girls begin to menstruate at eight, nine, and ten years of age; but advancing to the northern climates, there is a gradual protraction of the time till we come to Lapland, where women do not menstruate till they arrive at a maturer age, and then in small quantities, at long intervals, and sometimes only in summer. But if they do not menstruate according to the genius of their country, it is said they suffer equal inconvenience as in warmer climates, where the quantity discharged is much greater, and the periods shorter.—*Dr. Denman's Introduction to Midwifery, by Mr. Waller.*

[4] It has occurred in this country as early as two years and a half, at eight years and a half, and between the third and fourth year.—*Dr. Ryan's Manual*, 3d edit. p. 41.

[5] The late Dr. Parry made note of a patient who began to menstruate at twenty-two, and continued to do so till sixty-nine years of age.—*See Collections from his Medical Writings*, vol. ii. p. 541.

rous observations, that the earlier the catamenia commence, the earlier will be their cessation.[1]

Source of the discharge.

The source of this discharge, once so much disputed,[2] seems now to be clearly ascertained; it is not from the vagina, nor from the os uteri, but from the inner membrane lining the uterus, that the flow proceeds. A woman was brought into Guy's hospital, labouring under procidentia of the uterus; when I saw this patient, the womb lay forth, within sight, between the limbs, and the uterine secretion being at the time proceeding, the fluid might be observed to issue from the os uteri, drop by drop. Many years ago, a similar observation was made by the celebrated anatomist Ruysch. Dr. Clarke, too, in his excellent treatise on Diseases of Women, tells us that he once met with a case in which the uterus was inverted, the inner membrane lying under the eye, so that when the womb was in action, he could distinctly see the catamenia oozing from the pores of the membrane; and hence we are enabled, by ocular demonstration, to set at rest the question, whether this discharge issue from the inner membrane of the uterus, or from some other part.

The secretion from capillary arteries.

It has repeatedly been questioned whether the fluid is secreted by the veins or by the arteries. In considering this question, you ought to recollect, that arteries are vermicular, and that veins are straight in their course. Now it has happened occasionally, that women have died suddenly when in full health, and during the process of menstruation; and Hunter observes, that he once took the uterus of a woman who died in this way under the catamenial action, and that upon laying it open and examining the inner membrane, he found it was moist. Observing this, he was next desirous to ascertain whether the moisture came from the veins or from the arteries, and, therefore, after wiping the uterine surface, he made pressure upon the vessels, respectively distinguishing the

[1] The time of the cessation of the menses (says Denman,) is commonly regulated by their original early or late appearance. With those who begin to menstruate at ten or twelve years of age, the discharge will sometimes cease before they arrive at forty; but if the first appearance was protracted to sixteen or eighteen years of age, independently of disease, such women may continue to menstruate till they have passed the fiftieth, or even approach the sixtieth year of their age; but, in this country, the most frequent time of the cessation of the menses is between the forty-fourth and forty-eighth year.—*Dr. Denman's Introduction, by Mr. Waller*, p. 102.

[2] Columbo, Sue, Pineau, Bohn, and Desormeaux considered it to proceed from the vagina: Vesalius, from the veins; Ruysch, from the arteries; Winslow and Meibomius, from arterial capillaries; Lister, from the glands; Simson, from particular small receptacles; and Astruc, from the venous sinuses.—*Dr. Ryan's Midwifery.*

veins from the arteries, by the vermicularity or straightness of their course. When he pressed the vessels, he found the fluid was clearly oozing from orifices communicating with the arteries, whence it is to be inferred that, as in most other parts of the body, so here, it is by capillary arteries that the secretion is formed.

Symptoms, etc.

Menstruation is often preceded or attended by various symptoms of uneasiness in the head, bosom, and the centre of the body; and in some women there is, at this time, a sort of excitation of the whole system, with a disposition to hysteria, all the symptoms becoming mitigated as the discharge proceeds. Why, in different constitutions menstruation observes different terms—why it affects the hebdomadal period—why it more frequently affects the lunar than the solar month, I am unable to explain.

Periodical vicarious discharge.

When uterine menstruation is suspended, there is sometimes, vicariously, a periodical discharge from other parts; and, to omit other examples,[1] I may observe that, in St. Thomas's hospital, there fell under my own notice a case in which there was every three weeks, for at least three times in succession, a discharge from a sore on the hand, in place of a discharge from the uterus, observing the same period, and to which the patient had been previously accustomed. In this case, it is worthy of remark, that there was, some two or three hours before the commencement of the eruption, a throb in the course of the radial and ulnar arteries.

Enlargement of the Uterus.

By some it has been supposed, that in menstruation of the uterus under procidentia the organ always doubles its size, a fact which, although I am not prepared to assert, yet, in one instance at least, I know that a great increase in the bulk of the uterus occurred, I think I may say regularly, and the whole womb might be felt to

[1] When women are deprived of the common uterine discharge, they are sometimes liable to periodical emissions of blood from the nose, lungs, ears, eyes, breasts, navel, and almost every other part of the body.—*Dr. Denman's Midwifery, by Mr. Waller*, p. 102.

To constitute the menses it is not necessary that the discharge should take place from the uterine or even genital organs, for some women have them from other passages, manifested by periodical vomiting, coughing of blood from the lungs, bleeding from the hemorrhoidal veins, nose, and so on.—*Edinburgh Medical and Physical Dictionary, Art. Menses*, vol. ii.

Baudelocque knew a woman of seven or eight and forty, who, from the age of fifteen, had been regularly attacked, every month, by a vomiting and purging, which lasted three or four days. She never had the catamenia.—*Ashwell on Parturition*, p. 97.

throb; and hence, laying those facts together, we might, I think, venture to infer that whatever may, month by month, be the cause of the topical increase of the vascular action in the menstruating vessels, it is the determination of blood on the uterus, produced by this topical excitement of the vessels, that gives rise to the discharge.[1] When women are led, from disease of the pelvis, to examine the uterus, they sometimes imagine that it is larger during the catamenia, or immediately before. Probably their remark is correct. During the action of the uterus, and just before it, the bosom often swells, and becomes more tender and firm.

Menstruation usually suspended during pregnancy.

Although during the child-bearing period of life women menstruate, I have observed already, that this action is entirely arrested during pregnancy and suckling, there being, however, exceptions to the general rule. Some women menstruate during the first months of gestation, nay, *perhaps*, in some rare instances, throughout the whole process; in most cases, however, it ceases, and also ceases during suckling, though, in the latter process, it is not infrequently renewed at the end of ten or twelve months, although the suckling be continued still; and hence we must not hastily conclude that a woman is not pregnant merely because she menstruates, for although doubts may be raised respecting the continuance of the catamenia during the whole term of gestation, yet I have repeatedly met with cases of pregnancy, in which the catamenia have continued to flow during the first two or three months; indeed this, notwithstanding Denman's assertion to the contrary, may, I think, be looked upon as by no means very uncommon.

SECTION XLVI.

DISEASES OF MENSTRUATION.

In considering the diseases attending or preventing menstruation, I shall confine myself to the few more important points; thus, it sometimes happens that the catamenia fail to flow at the age of puberty, in consequence of organic obstruction of the vagina, or deficiency of the womb, or a want of the ovaries.

[1] These excitations and congestions are, perhaps, in nature allied to the congestions and excitations observed in the genitals, the breasts, the nipples, and the appendages to the heads of our domestic fowls; they are, too, perhaps, allied to the œstrum of animals.

Absence of the Ovaries.

For women to be formed without ovaries, is an occurrence uncommon indeed, yet sometimes observed, the ovaries either not existing at all, or consisting of mere vestiges. When the ovaries are thus wanting, or merely vestigiform, the uterus, sympathising with this defect, is perhaps generally of small size, thin, and sparingly supplied with blood-vessels, and of consequence but little prepared to act. When, too, the ovaries are wanting, it is remarkable that, in some cases at least, the genital and the general system do not undergo the usual womanly changes; the breasts are not developed, the pelvis does not spread, the external genitals are not enlarged, and the sexual appetites are not acquired; in a word, the patient throughout life, whether at twenty or forty, whether sexagenarian or octogenarian, seems to remain a mere girl still. From these indications, you may pretty certainly infer that the ovaries are wanting, and the deficiency of the catamenia in these cases may be looked upon as incurable.

Absence of the Uterus.

In the second place, it sometimes happens, that women are formed destitute of the uterus, or, which is more frequently the case, they have possessed it originally, but it has been removed by ligature or otherwise. Four cases of this kind I have mentioned before, Mr. Newnham's, Mr. Windsor's, Mr. Chevalier's, and one of my own, in all which the womb, being in a state of chronic inversion, was removed by ligature. If the uterus is in this manner thoroughly extirpated, the catamenia are not to be expected, except, perhaps, a little *show*, the vagina menstruating *vicariously*, as it is called, taking upon itself the office of the uterus. My own patient, who recovered thoroughly, remained free from the catamenia for two or three years at least, since which no report of her condition has come into my hands. Mr. Newnham's patient had no catamenial discharge for a length of time, (I believe I may say four or five years, but I am speaking from recollection), and after this term, if there was any appearance, it was slight. The patient of Mr. Windsor also ceased to menstruate after the uterus was taken away, at least for a time, and therefore it seems that the deficiency of the uterus, whether by operation or originally, may occasion a cessation of the menstrual discharge. It deserves remark, however, that when the womb is removed, and the catamenia cease to flow, there may be a determination of the blood to other parts, more especially if the habit be in full health in other particulars. In my own patient, there was a determination of the blood to the head, so that cupping was necessary; I should add, however, that the symptoms were not so violent as we sometimes find them in women, whose structure is complete, and in whom the cessation has been

produced by other causes. The patient of Mr. Newnham became plump after the operation. The removal of the uterus does not extinguish desire.

Vaginal and uterine obstructions.

The catamenia may fail to make their appearance in consequence of another organic affection, and that is an obstruction of the orifice of the vagina itself, or of the os uteri. When in this manner the parts are perfectly well formed, excepting that the hymen is impervious, all the other structures develope themselves at the age of puberty, but still there is no red discharge from the genitals, and the patient is supposed at first to labour under chlorosis of the ordinary kind. In this state of things, if the catamenia are secreted, in the course of some two or three years after puberty, the abdomen begins to enlarge; and when the character of the girl and the history of the case are not sufficiently known, perhaps the patient is supposed to be pregnant, a mistake the more easily committed in the advanced stages of the disease, because the uterus becomes larger and larger every month, until at length it acquires the bulk of a nine months' pregnancy. The disease still continuing, it reaches at length its third stage, and then pains are felt like those of parturition, and perhaps the obstetrician[1] is sent for in all haste; and when he makes an examination, he feels something very similar to the membranes charged with the liquor amnii; and perhaps he fancies that he perceives something like the head of the fœtus, and he tells the lady that she is going to have a boy; and really the mistake, though ludicrous, is by no means unpardonable, for the resemblance to the membranes as observed in ordinary labour is very close, and might deceive an experienced obstetrician, provided an examination were carelessly made. After all, however, this rounded substance, and which resembles the sac containing the liquor, is, in truth, nothing more than an imperforate hymen, dilated in consequence of the accumulation of the catamenia within, and forcing through the external parts much in the same way as the water cyst during parturition. There are then three different states of the body with which the retention of the catamenia, from obstruction, may be connected, namely, chlorosis, pregnancy, and parturition; the disease, notwithstanding, being none of the three, but merely an accumulation of the catamenia, occasioned by the imperforate state of the hymen, perhaps the most common cause of these symptoms, or else arising from the closure of parts above, as the vagina for example, or the os uteri.

Operation for imperforate Hymen.

When the disease arises from an imperforate hymen, it may, at any time, be cured with facility. The hymen is laid open with a

[1] I use the commodious, and not inelegant appellation, first proposed by Dr. Ryan.

scalpel—a crucial or stellated incision is to be preferred, for the opening should be free; and during the healing process, care must be taken to prevent the entrance of the vagina from so far closing, as to become unfitted for sexual intercourse. When the hymen is divided at a time when the patient has uterine pains, the catamenia are expelled something like the liquor amnii in labour; but if the catamenia are thickened by absorption, so as to resemble treacle, they are apt to be in part retained, and may become putrescent, when it may be necessary not only to cut through the hymen, but to inject warm water with a long tube syringe into the cavity of the womb itself, so as to purify it by rinsing.

Supervening puerperal inflammation.

It seems that where the puerperal fever is epidemic, women in whom the hymen has been divided in this manner are liable to inflammation of the peritoneum afterwards, in the same way as they are liable to similar inflammation after they have been recently delivered. Cases of this kind have been mentioned by Denman; and a few years ago, at the London Hospital, a case occurred,[1] in which the obstruction was divided, and the accummulation of the catamenia amounted to two gallons or more; inflammation of the peritoneum ensued, but the patient was saved by vigorous antiphlogistic remedies. Now, as this is the case, if I had a patient under my care, I should dissuade her from submitting to the operation till the epidemic predisposition to puerperal fever was subsided, even though she waited for three or four years; for, without pretending to assert that abdominal inflammation from this cause is equally dangerous with the genuine fever of puerperal women, I think it not impossible that it might cost her her life. Why the discharge of the accumulated catamenia should, like parturition, give rise to peritonitis, I do not pretend to explain, but the fact is curious. Is there any analogy between the lochia and the catamenia, and is this the cause of these similar effects? Perhaps some great pathological truth lies concealed here.

Parts impervious above.

When the orifice of the vagina is open, the parts may be impervious above; and this I suspect in two ways; for the closure may be confined to a certain spot only, the mouth or neck of the uterus, for example, or the middle of the vagina; or, on the other hand, throughout the whole extent, the sides of the uterine cavity, and of the vagina, may mutually cohere. Of these closures some may, perhaps, have existed from the birth; but others, indeed, I may say most, are the results of inflammation or slough of the inner membrane; and though these inflammations may occur even in virgins, yet the most common cause of the disease is a more or less

[1] For a reference to which I was indebted to Mr. Mitchell, of Kennington.

laborious parturition. When the closure above is not partial, but reaches then throughout the whole extent of the genital, the case scarcely admits of remedy, nor indeed will the catamenia form; but when the obstruction is confined to a particular spot of the genital cavity, the catamenia may form and accumulate, and the history and the treatment of the case will be found to be, on the whole, very similar to that of the imperforate hymen. As, however, in a case of this kind, it is not so easy to enter the cavity above, as in those cases in which the hymen alone is thickened and imperforate, I should dissuade the operator from being in too much haste to take up the scalpel. If he wisely wait, so as to allow of an accumulation of the catamenia, and a dilatation of the womb and vagina above, provided he possesses a moderate share of dexterity, he will find his operations easy; but if he attempt to lay open the parts when the accumulation is small, it may be no easy task to enter exactly the upper cavity, and the knife may accidentally penetrate into the bladder, the rectum, or into parts that are interposed. In those cases, too, where the parts are impervious, there is yet a further advantage in waiting. If the cavity is closed throughout its whole extent, there seems to be but little effective use in our attempt to cut down upon it, or if the parts above should be wanting, and more especially the uterus, why should we try the scalpel?

Diagnosis.

From the last observations, the need of being able to decide the exact nature of the case is evident. Therefore, if we operate too soon, the diagnosis may be difficult; but if we wait, so as to give full time for the accumulation of the catamenia, say to the amount of one or two pints, the presence of this fluid in the uterine cavity above will at once demonstrate the existence of the womb and ovaries, and the absence of any general and diffused cohesion of the parts. But how are we to discover the catamenial accumulation? By examination? The task is easy to those who possess the requisite tact. Further: when the genitals are impervious above, provided the obstruction result from inflammation, suppuration, or slough in consequence of delivery, or other cause, the probability is that the obstruction constitutes the whole of the disease; but if the obstruction have existed from the birth, the possible co-existence of some other affection is not to be forgotten; indeed, in some of these cases, as observed already, the womb or ovaries may be wanting; and I recollect one case where tubercular dropsy was associated with the disease. Careful examination must determine these points. Diagnosis becomes more necessary, if the disease have not been produced by laborious parturition.

SECTION XLVII.

LEUCOPHLEGMATIC CHLOROSIS.

Patients will sometimes be brought to you pale, cold, bloated; with an abdomen enlarged from flatulency, a disposition to swelling of the legs, feelings of languor, lassitude, torpor, an incapability and disinclination of much muscular action. Now, together with this inactive state of the system, and the evident deficiency of healthy blood, as shown by the paleness, and coldness, and sallowness of the patient, there may be a failure of the flow of the catamenia; so that at the age of sixteen, seventeen, or eighteen years, perhaps, the catamenia have not appeared at all, or scarcely.

Treatment.

In treating the leucophlegmatic chlorosis, for so it may be called, we have it not generally in our power promptly to cure the disease, but sooner or later, and sometimes in one or two years, and sometimes in a few months, it may give way; and although I know not that I can lay down any mode of treating this chlorosis with that certain efficacy which I could wish, yet I will throw out a few hints, not without their utility in my own practice, and which may, therefore, be of service in yours.

State of the chylopoietic Viscera.

In leucophlegmatic chlorosis, I deem it always a point of the first importance to attend to the state of the chylopoietic viscera, the stomach, the bowels, the liver; you may therefore commence your treatment by clearing the alimentary tube by means of emetics and purgatives. An emetic answering the purpose very well is ipecacuanha, given once or twice a week for two or three weeks; and the ordinary purgatives, senna and salts, will very effectually clear out the bowels. With the same view of improving the state of the chylopoietic viscera, it has been advised, that we should not merely put the patient on the temporary use of purgatives, to displace any matter that may be accidentally lodging in the alimentary tube, but that a regular course of laxatives, joined with the occasional use of the blue pill, should be administered for weeks together. This method of keeping up the intestinal action seems to be the rather necessary, because we generally find the evacuations to be faulty, sometimes white, sometimes green, often black, and often offensive in a high degree, with a strong disposition to constipation, and seldom, if ever, in a state that is perfectly healthy. With a view of improving the state of the chylopoietic viscera, too, it has been proposed by Hamilton, who has written on purgative medicines, that we should not merely use a gentle course of laxa-

tives, but that we should administer the purgatives in large doses, day after day, till we have given the patient a thorough purgation, and obtained stools of healthy character; and he states, as matter of observation, that in cases of chlorosis, when this method of large purgation has been followed up one week after another, it has been ascertained that instead of patients losing strength, they have, on the contrary, rather acquired it, a circumstance which is to be explained by the improvement of the state of the stomach and bowels, which this strong stimulus will sometimes occasion. I should observe to you, however, by way of caution, that I have been told by a very able and distinguished practitioner, whose name would carry much weight with it, that when he was at Edinburgh, a case being managed in this way, certainly with the best intention, the girl died; sinking, as it appeared to him, under the effect of purgatives. This single case I mention to you merely as a caution, not by any means in the view of passing a general condemnation on the practice, which has the authority of Dr. Hamilton to recommend it. I may observe, however, at the same time, that I mention this method of strong purgation on his authority only, that I have never myself admitted it into general use, and cannot, therefore, pass upon it a personal judgment. Milder remedies being in general sufficient for the purpose of curing the disease, if time be allowed, I always give them the preference, excepting, perhaps, in a few anomalous cases, where the original strength of the habit was great. These then are the three principal modes in which it is preposed to manage the chylopoietic viscera—by the use of active purgatives according to Hamilton's method—by the administration of milder laxatives, consisting of blue pill, and so on, a method perhaps which is the safer, as it is the less violent—or by the mere clearance of the bowels, under emetics, and a few doses of ordinary purgatives; of these three modes, the second is that which I should recommend to your attention.

Healthy red blood.

In cases of leucophlegmatic chlorosis, it is also of the first importance to inquire into the quantity of the healthy red blood in the body—generally deficient. Now, it seems, from the very look of the girl—from her coldness, paleness, and inactivity—her white lips, her pallid tongue, her sallow cheeks—that though her vessels may be full enough, yet that they are not full of healthy, rich, red blood; and if we can, therefore, invigorate the sanguifying powers, so as to acquire for her a fuller supply of the vital fluid, we shall, in truth, have made one grand step towards the complete cure of the disease. Now, in this view of augmenting the quantity of red blood, you will find great assistance from the medicines to which I shall presently advert, and if you once get this fluid into a healthy, not to say lively state, there will be little doubt that the disease will speedily give way.

Diet.

With the view of filling the vessels with healthy blood, you should also allow your patient a generous diet, apportioned to the powers of her digestive apparatus; and she may be supplied with all the food that she can take without producing symptoms of dyspeptic oppression and offensive stools. Three meals, and perhaps four, she should take in the course of the day: breakfast, an early dinner, a tea, and a supper. In the way of peptic preparative, you may recommend her, on rising in the morning, to take a table spoonful of white mustard seed, unbruised, and two or three pills, consisting of quinine, say one grain, and four grains of the *best* Cayenne pepper; and this pepper should be powdered thoroughly, and mixed up with a little mucilage, or any other combining substance which is likely to dissolve soon in the stomach. This peptic medicine may be taken four times a day, about half an hour before each of the four meals. The quantity of it ought to be measured according to the effect produced. Warmth of the stomach, and a little gnawing pain there, being perhaps the best criteria that the medicine is in action. At breakfast may be used biscuits, or dry toast, or stale bread, with fresh butter; perhaps a new laid egg, and one little cupful of hot black tea, as hot as the mouth will bear it, in order that it may warm the stomach, and stimulate the inner membrane; for these hot drinks, though hurtful to the healthy, may be found very useful in a diseased stomach; and much in the same manner as heated water is found, under immersion, to swell the hand and excite the capillary circulation, so as to produce reddening and perspiration, the hot tea may be reasonably thought to produce its action on the capillaries of the stomach. The patient should be confined to one cupful of tea, that she may not deluge the stomach, for some women are very fond of taking tea in excess, and in this way they may overload the gastric cavity and dilute the gastric juice, so as to impair greatly its digestive and solvent powers. At about one or two o'clock, viz. five or six hours after breakfast, another spoonful of the white mustard seed and the peptic pill (being administered half an hour before the dinner) may be used. At this meal, be it observed, that boiled is preferable to roast meat, white meat to red meat, that which is well done to that which is under-done, the inside to the outside, potatoes to every other vegetable; the food to be thoroughly chewed, and eaten slowly; no drink; or if there must be drink, then take half a tumbler of very hot water; but in general the drink required ought to be taken two hours before dinner is begun; toast and water, table beer, or other aqueous fluids are to be preferred. The pepper and mustard seed will supersede the alcoholic stimulus. Three or four hours after the dinner, the tea may be ordered, not sooner, lest it should disturb the digestive powers—this is to be similar to the breakfast; three or four hours after tea, the patient may sit down

to supper in the form of a very light dinner. With respect to the general beverage, my opinions are a little unsettled; to the alcoholic stimulus I have an aversion, perhaps even a prejudice, and certainly, if your patient, under the use of this diet, is acquiring strength, I should not give much stimulant of this kind, but if not, then wine, or ale, or porter, or spirit may be given; and of the four I give a preference to spirit, in measured quantity, and diluted with four or five of water. These fermented liquors, you may tell your patient, must never affect the head, and while she keeps clear of any unpleasant impression of this kind, she cannot be considered as indulging in marked excess. In general, in these cases, whatever beverage the patient uses, is better taken apart from the food, say three hours afterwards, or still better, two hours before.

Invigorate the system.

In cases of leucophlegmatic chlorosis, again, you should not only endeavour to improve the red blood and increase the quantity, but it should be your object, too, to invigorate the system; and if you succeed in the two former points of treatment, you will find that this third indication, in a manner, fulfils itself.

Tonic and chalybeate medicines.

To invigorate the system, you may make trial of the tonic medicines, taking care you do not overload the stomach, so as to obstruct digestion. Bark, bitters, aromatics, and preparations of iron, now too much neglected, and very improperly superseded by calomel,[1] may all be used in turn. Iron I can recommend especially to your consideration, and the compound myrrh mixture, or the carbonate of iron,[2] or the sulphate in the powder, are perhaps the forms in which it may be best administered. The compound myrrh mixture constitutes what was formerly called *Griffith's mixture;*[3] it is rather bulky and offensive; the carbonate may be given in powder or electuary, and the sulphate in pill. Dr. Marshall Hall, whose opinion is always to be heard with attention, has found iron of

[1] Different preparations of quicksilver have sometimes been given with advantage.—*Dr. Denman.*

[2] Preparations of iron have long held great repute in chlorosis, and are known to women under the name of "steel drops," "steel pills," &c. I believe them of much value as tonics, but not as emmenagogues.—*Dr. Ryan.*

The carbonate of iron, in the proportion of one or two scruples, with one grain of the sulphate of quinine, mixed with honey or treacle, and taken three times a day, I have repeatedly found beneficial; the patient occasionally taking an aloetic and mercurial aperient.—Ed.

[3] Dr. Jewel proposes the following formula as a pleasant substitute for Griffith's mixture: ℞. Ferri sulph. potassæ subcarb. sacchar. alb. aa drachm. dimid., myrrh. drachm. unam, Ft. pil. midiocres. Four pills are to be taken twice a day, with a bitter draught after them.—*Lond. Pract. Mid.* p. 24.

great efficacy, and I have myself, in many instances, been ***very well*** satisfied with its effects.[1]

Change of air and bathing.

Again, to invigorate the patient, if she is in the midst of a large town, you ought to send her to the sea-side, or into the country. Indeed, I know of no means more efficacious for improving the digestive secretions, than change of air. You may sometimes have patients for weeks together, in a large city, with a metropolitan paleness of the cheek, and a commercial whiteness of the tongue; weak, sallow, emaciated; rich and miserable; in a word, labouring under gastric symptoms, too strong for your remedies; and yet these very patients, after having been eight or ten weeks—sometimes five or six only—in the country, acquire their full digestive powers, and become comparatively plump and fat. The cold shower-bath, where the powers are vigorous enough to react under it, may be used every day, or on alternate days. A dip in the ocean may be recommended, if the patient is at the sea-side; but it is better to defer the use of bathing till the patient has a little recovered her strength.[2] One of the best proofs of the salubrious action of the bath, is the production of a full glow; but if the body, after plunging, is pale blue and chilly, or if local pains are felt, she must refrain.

Emmenagogues.

The previous different measures having been carefully pursued, the chylopoietic viscera having been strengthened and amended, the quantity of red blood having been increased, and the vigour of the system corroborated, should amenorrhœa continue, you may have recourse to emmenagogue remedies.[3]

[1] The chalybeate waters of our own country, or those of Spa, are universally proper, which, although they do not always produce the menstruous discharge, or its return, they scarce ever fail to improve the health.—*Dr. Denman*, p. 110.

[2] Should the cold bath not agree at first, the tepid salt-water bath may prove of service. For a week previous to the expected attack of pain, the semicupium should be used every night, and some mild emmenagogue, such as a teaspoonful of ammoniated tincture of guaiac, or infusion of madder, with an aromatic, prescribed.—*Dr. Burns*, p. 164.

[3] See page 185.

SECTION XLVIII.

AMENORRHŒA IN THE ADULT.

The catamenia with women in the full vigour of life, acting month after month with the utmost regularity, may, from some accidental cause—it may be a fright, or cold, or the like—cease to flow.

Effects of menstrual cessation.

At first, perhaps, no inconvenience is experienced beyond the alarm, but afterwards the general health seems to give way, and the habit becomes sallow and emaciated; there is darkness round the eyes; the cheek bones rise into notice; the general appearance is cachectic; at the same time the stomach and bowels get into an unhealthy condition, and perhaps there are irregular determinations of blood to different parts of the system; the chest, bowels, and stomach, the brain and the Schneiderian membrane, being the parts of the body to which the flows are principally directed. When the determination of blood is to the brain, in general there is no effusion, otherwise our patients would be seized with apoplexy; throbbings and cephalic pains, and mental confusions, may attack the patient, but the disease usually stops here; it rarely happens that vessels are giving way within the cranium; but where the determination takes place to other parts where the vessels seem to be less secure, effusion is by no means infrequent, therefore bleeding from the nose, bowels, and lungs, are by no means uncommon. When the bleeding is from the nose, there is no danger; when it is from the lungs, it may suffocate the patient; when from the stomach and bowels, it may prove dangerous too. Sometimes women throw up blood month after month, to the amount of one or two pints at a time, not to mention larger quantities. It is not always that the effusions are of monthly occurrence, nevertheless there is frequently a tendency to periodical return; and in some cases you will find the discharge takes place with such regularity, that the disease may be properly enough called the vicarious menstruation. The case[1] of this kind which occurred in St. Thomas's hospital, and many other examples, might be cited.

Treatment.

In treating this amenorrhœa, where the general health is impaired, it ought to be our first object to improve this, and you may manage the treatment much in the same way as in cases of leucophlegmatic chlorosis.

[1] Page 172.

Determination of blood.

If there is a determination of blood to any part of the body, the method of treatment must vary according to circumstances. If the blood, for instance, were in the bowels and stomach, I should occasionally bleed from the arm, I would give diaphoretics to equalize the circulation, and I should think of slight mercurial action, keeping the patient in a state of perspiration, and not neglecting the emmenagogues to be hereafter enumerated.[1] If the determination of blood is to the head, the action of the cerebral vessels must be kept under; the hair should be taken off, if necessary; cooling lotions should be applied; the nape of the neck should be cupped; the arm should be opened by venesection, and blood may now and then be taken away from the arm; the bowels, too, should be opened every day, and ale or wine should both be carefully avoided.

Excitement of the uterus.

While we are using the above remedies, we ought not to forget to stimulate the uterus. It is to be lamented that we have not more effectual means, than we at present possess, for exciting the catamenial action, in the same manner as we can excite the skin, the bowels, or liver, or the salivaries.[2] It is not improbable, that in nature powerful and certain emmenagogues may exist; but, granting their existence, they have not yet been discovered by human sagacity. To Lavagna we are indebted for a topical method of exciting the uterus, which I am inclined to think of real efficacy; and though this method may not be very convenient in girls, yet in married women, who have had children, it may be adopted, and easily enough. Lavagna's practice consists in taking a few drops, say eight or ten, of the aqua ammoniæ puræ, and adding an ounce or so of water to it: it is used by means of a syringe, which ought not to be oiled, for that tends to render the ammonia saponaceous. This fluid is to be thrown up two or three times in the course of the day, so as to reach the upper part of the vagina. The object of this injection is to produce a throbbing and fulness about the parts; and if you mean to give it a fair trial, you must increase the strength before you can prove its effect, as, in so many other instances, where the remedy is not a mere placebo, it is not the measure, but the effect, which is to regulate the proportion. I have now, in repeated instances, ordered this plan for patients in consul-

[1] Page 185.

[2] I have been informed that, in suppressions or deviations of the menses, injections per vaginam, in the composition of which there is some preparation of quicksilver, are of particular service; but of such I have not had any experience.—*Dr. Denman's Midwifery.*

Dr. Waller, believing that the cause of the complaint is to be found elsewhere than in the uterus, has a very decided objection to local stimuli.—*Ibid.*

tation, but I have scarcely had an opportunity of knowing whether the remedy has proved successful or not. The majority of those to whom I have prescribed it have not afterwards come under my notice, so that my observations have not been sufficiently large and numerous to enable me personally to interpose a well ascertained opinion on the point; I can, however, observe with truth, that the catamenia have repeatedly followed the use of the injection, and that my general impression at present is decidedly in its favour.

Emmenagogues.

Should the use of the ammonia be inadmissible, or should it be found that this method of treatment fails, the ordinary emmenagogue[1] remedies should then be tried, and the best I know of are the smart doses of aloetic[2] purgatives, warm hip baths,[3] or general immersion of the body, and horse exercise. The best time for pushing these remedies is that period when the catamenia ought to flow, known by former recurrence, indicative of a return, or else by certain feelings in the head and pelvis, with which the system is familiar. Night after night, at this time, for five or six nights in succession, the patient may sit for twenty or thirty minutes in a hip bath at a good heat, taking afterwards eight or ten grains of aloes; the horse exercise, where circumstances will allow, should be used in the morning; or if this is not to be had, the chamber-horse may be substituted. As an emmenagogue,[4] electricity is well

[1] Dr. Waller appears to entertain a very slight opinion of the utility of emmenagogues in restoring the menstrual discharge. "It is much to be regretted," says he, "that the class of medicines called emmenagogues ever found its way into the materia medica; they are extremely hurtful before the general health is restored, and unnecessary afterwards; for with returning health, the evacuation usually becomes established. It is a wise provision of nature, that in an impoverished state of the system it should not take place."—*Denman's Midwifery, by Dr. W.*, p. 111.

Dr. Ryan, on the other hand, observes, "It is extremely doubtful if we know any medicine that has a direct influence upon the uterus, except secale cornutum. It must be admitted, however, that the ordinary emmenagogues are generally attended with success, perhaps from improving the digestive organs and general health."—*Manual*, 3rd ed. p. 328.

[2] Strict attention must in every case be paid to the state of the bowels, which ought to be excited to an action, and if possible a vigorous state, by a regular but not inordinate use of stimulating laxatives, such as the aloetic pill, compound tincture of senna, or compound tincture of gentian, combined with tincture of rhubarb or aloes, or the pilulæ aloes et myrrhæ, with a grain of sulphate of iron in each. Large doses ought not to be employed.—*Dr. Burns' Midwifery*, 8th ed. p. 157.

[3] The cold bath in chlorosis is seldom proper, as it is apt to be followed by chilliness, headache, and languor. It is only useful when succeeded by a sense of heat and comfort. The warm salt-water bath is of greater service, and is proper even in an early stage.—*Dr. Burns.*

[4] Dr. Coindet considers iodine to be one of the most powerful emmenagogues we possess.—*Dr. Jewel, in Lond. Pract. Mid.* p. 26.

The ergot does not appear to have realised the anticipations formed of it as an emmenagogue.—*Ibid.*

worth a trial,[1] more especially in town, where it may be easily administered in all its forms. Denman seems to have a favourable opinion of its efficacy, and he says that instances have occurred in which the action of the uterus has been exerted, even while the patient was under the operation.

Tourniquet.

Very often these remedies may be tried month after month, unhappily without the desired effect, but sooner or later the catamenia are in general re-established. Should the retention, however, prove obstinate, other remedies,[2] to be found in most works on materia medica, may deserve an essay—as savine,[3] for example, rue, madder,[4] myrrh, and a succession of gentle emetics. The tourniquet has been advised, but this, I suspect, is rather a plausible than a useful remedy. It is said, that when there is a disposition to the flow of the catamenia, the tourniquet may be put on both thighs, so as to prevent the flow of blood along the femoral arteries, and in this manner occasion an accumulation about the vessels of the womb, and a consequent eruption of the catamenia.

[1] Galvanism (*Andrieux*) would be less useful than the electric spark and shock (*Mauduyt.*) A less direct, though local, stimulation may be produced by rubefacient liniments, applied to the femora, the hypogastrium, &c.—*Boivin and Duges' Treat. by Heming*, p. 428.

[2] In chlorosis, attended with symptoms resembling phthisis, myrrh combined with the oxide of zinc, is, I think, of approved efficacy; and ammonia, given in the form of an emulsion, with oil, very often is effectual in relieving the cough.—*Dr. Burns*, p. 159.

Dr. Dewees has strongly recommended the tincture of guaiacum, with subcarbonate of soda, and potass and pimento—a formula I have found of essential service.—*Dr. Ryan*, p. 322.

I have tried the tincture with the liq. amm. acet., so lauded by Masuyer, of Strasbourg, and J. Cloquet and Patin, of Paris, with the greatest success.—*Ibid.*

Dr. Mackintosh speaks in strong terms of tinct. lyttæ, ten drops three times a day, and increased to thirty, forty, and sixty drops; to be discontinued should strangury appear.—*Ibid.*

Iodine has often been used with success, either in solution in alcohol, or in substance.—*Boivin*, &c. p. 427.

Tannin, to the extent of a hundred grains in a day, has been proposed, but with little benefit.—*Dr. Burns*, p. 157.

[3] Rue and savine have often been found efficacious: they may be given in powder, infusion, or syrup, sometimes in considerable quantity, as half a dram, at most, of the dry substance, in the twenty-four hours. Saffron, in similar quantities, has been found useful. Ammonia has also been recommended.—*Boivin*, &c. p. 427.

The essential oil of savine has been found beneficial by Dr. Locock.—*Lond. Pract. Midw.* p. 26.

[4] The root of madder (*Rubia Tinctorum*) has been advised either in one or more large doses, about the time when the menses are expected, or to the quantity of half a dram twice or three times daily in the intervals.—*Denman*, p. 110.

Madder is recommended from its supposed deobstruent quality. Instances of its wonderful powers are related in Dr. Home's practice.—*Lond. Pract. Midw.* p. 25.

SECTION XLIX.

MENORRHAGIA.

It sometimes happens, that women are affected with a discharge of blood from the genitals, independent of any organic disease, and this it is which constitutes *menorrhagia*,[1] as it is called, of which there are two varieties—the one the active, and the other the passive.

Active menorrhagia.

The active menorrhagia is, perhaps, more apt to occur in women who are robust and plethoric, and still more frequently in women who have had their nerves agitated by some domestic calamity, as the death of a near relative for example. In this disease, you will find occasionally eruptions of blood from the uterus, more sparing or more copious, tending occasionally to observe the menstruating period, but not always—the discharge being sometimes preceded, at the first, by an unusual heat of the surface, a whiteness of the tongue, and a certain degree of hardness and frequency of the pulse, which rises, perhaps, to 100 or 110 in the minute, a slight degree of febricula being produced.

Abstraction of blood, etc.

When menorrhagia is in this manner occurring in women who possess a moderate share of strength, and have a degree of febrile

[1] Menorrhagia, or superfluous menstruation, Dr. Good divides into two varieties—*reduplicate*, the discharge excessive from too frequent occurrence, and *profuse*, excessive from too large a flow at the proper periods. The second variety is the *Menorrhagia rubra* of Cullen, who makes it a distinct affection from *metrorrhagia*, or *hemorrhagia uteri*, by confining the latter term to a signification of hemorrhage from other vessels of the uterus than those concerned in separating and discharging the catamenial flux.—*Good's Study*, vol. v. p. 59.

Either of the varieties (continues Good) may be active or passive; but in the first there is usually a greater degree of local irritability than in the second, so that the secernments are exerted, or the extremities of the minute blood-vessels open upon very slight occasions. As it may occur under these two different states of body, it may proceed, as Dr. Gulbrand has observed, (De Sanguine Uterino, 1778,) from an increased impetus in the circulation, a relaxed state of the solids, or an attenuate state of the fluids; to which he might have added uterine congestion.—*Ibid.*

Some obstetricians, of considerable experience, assert that this complaint is of very rare occurrence, and that in general what is described as such is absolutely a discharge of blood, and not of menstrual fluid. The disease, however, is certainly one of frequent occurrence in this country.—*Dr. Ryan's Manual*, 3rd edit., p. 332.

Dr. Denman remarks, that those cases which can be reduced under the term menorrhagia are rare, for what are often called such are either hemorrhage accompanying early abortions, or morbid or symptomatic discharges from the uterus.—*Int. Mid.*

excitement lurking about the system, one of the first steps to be taken, in the plethoric more especially, consists in the abstraction of blood from the arm to the amount of eight or ten ounces; or, if the strength be less considerable, by means of leeches, which seem the rather to be indicated in these cases, because there is increased action of the uterine vessels. These leeches may be applied either to the orifice of the vagina, or above the symphysis pubis, to the number of ten or twelve, three large poultices being applied afterwards, (each remaining there two hours,) for the purpose of keeping the leech orifices pervious and bleeding. If the discharge from the genitals is copious and rather alarming to the friends, (though I believe it is rarely dangerous,) cold may be applied in front and behind, just in the same manner as you would apply it in the case of miscarriage; but this is not, perhaps, usually required.

Internal remedies.

Refrigerating purgatives, as nitre, for example, or sulphate of magnesia, or sulphate of soda, may be of use to diminish the hemorrhagic effort of the habit; and if there is an obstinate tendency to the increased vascular action of the system, you may then give your patient digitalis in operative quantities. Now, there are three indications by which you may know that digitalis is in action: one a sickness of the stomach, and perhaps some action of the bowels; another a change of the pulse, which becomes intermittent or irregular; and a third, an increase in the quantity of the urine;—and whenever you find any one of these symptoms, you must watch the digitalis with care, for it is in action on the system; and you must not forget that the remedy, though valuable, is not without its danger, and that the digitalis may accumulate, suddenly operate, and destroy the patient. Again, in cases of this kind, I should recommend you to give diaphoretics, so as to keep up the action of the skin, and this with a view of equalising the circulation. Stimulants, as general remedies, seem decidedly improper, wine more especially; and I mention this, the rather because patients are apt to have recourse to this stimulant, red wine more especially, either because they have a reliance on its astringent properties, or because they have a great *dislike* to its flavour. In active menorrhagia, if the preceding remedies fail you, and the disease show no disposition to yield spontaneously, there is yet another remedy which may be worth a trial, and that is, a gentle mercurial action: for five or six weeks together, let the gums be kept slightly sore, and by its action on the capillaries, the mercury may sometimes destroy the morbid excitement which is existing in the small vessels of the womb.

Passive menorrhagia.

Menorrhagia, however, is not always of the active kind, for we sometimes meet with a second form of this disease, namely, that in

which you have a discharge of blood from the uterus, occurring, perhaps, largely and frequently, and this with a great reduction of strength. The patient is cold and pale, and so feeble, that she can scarcely sit up, or she is confined to her bed, and is hardly able to move herself; in short, her condition is very similar to that of a woman who has lost much blood by hæmorrhoids, prolapsus ani, or repeated miscarriage; and when in conjunction with this state of system there is a drain of blood from the uterus, the case constitutes a second and more formidable variety of the disease.

Tonics in the slighter cases.

It is only in the slighter cases of passive menorrhagia, that much benefit is to be expected from tonic medicines—bark, bitters, iron, or the like; but in such cases they are not to be neglected.

Lead.

If the bleedings from the womb are obstinate, lead may be thought of—a remedy which, according to Haighton and Ruysch, is by no means despicable: four grains of the superacetate may be given in the course of twenty-four hours. In some cases larger quantities may be administered, and sometimes not so much; but the dose here mentioned, though powerful, may be deemed a sort of average. With every grain of lead administer a quarter of a grain of opium, forming the whole into a pill; or, if you please, you may dissolve the lead in the acetic acid and distilled water, adding a little tincture of opium, so as to form the whole into draughts. Lead, however, remember, is a dangerous remedy, if used imprudently; unless there is clear occasion for it, you will do well not to administer it at all; and when you do administer it in the larger doses now proposed, recollect that certain cautions are necessary. If the menorrhagia is checked—if the bowels are affected with colic—if you have given altogether a certain measure of the lead, say a total of two or three scruples—it is better to lay the remedy aside.

Small doses of mercury.

When other remedies fail, I am inclined to think that the smaller doses of mercury may have a very beneficial effect; certain I am, that more than once where I have used it, I have found the discharge suspended, when the mouth has become slightly sore. It is not a high state of salivation I am here proposing, but merely that measure of the mercury which may produce a slight uneasiness of the mouth, and some increase in the secretion of the saliva.

Plugging the vagina.

If the menorrhagia is very pressing—if there is a discharge of the blood to such an extent that you are afraid for the life of the

patient—I would advise you to make use of the plug, as in cases of miscarriage; and you may either resort to the introduction of tow, or some other soft substance, into the vagina; or if your patient is too irritable to bear this, then a napkin may be applied to the genitals, and diligently held there, which may occasion the blood to remain in the vagina, and to coagulate, so that the mouth of the vessels may become closed up. Such cases also are adapted to the topical use of cold to be applied to the loins or front of the abdomen, according to the rules and cautions laid down for the management of this remedy in flooding cases.[1]

Injection of astringents.

Again, in the worst cases of passive menorrhagia, there is another remedy, (first recommended to me by Dr. Haighton,) and which I have found of great value in the worst cases of passive menorrhagia, and that is the injection of astringents, not into the vagina only, but into the uterus itself; and this has been known to succeed in cases apparently desperate, where the bleedings have been going on till the patient has been reduced to the most extreme degree of weakness. But, in order to give this remedy a fair trial, you ought to inject the solution yourself—you cannot trust it to nurses; and a syringe, or elastic bottle, with a long neck, should be used for the purpose. Simple cold water may first be tried, and if this fail, half a dram of alum may be dissolved in half a pint of water, and used for the purpose: weaker solutions must be employed at first, for you must not use for the inner membrane of the womb solutions of the same strength that you would employ for the inner membrane of the vagina, unless by advancing gradually from the weaker solutions to the stronger, as the parts may bear. Twice in the day the injection may be used; one small gush, of about two teaspoonfuls, may be thrown up; then a second, then a third, then a fourth, in succession, and so on till you have thoroughly wet the uterus, care being taken that you do not inject too forcibly, as this may tend to irritate the vessels and increase the disease. Under the use of the alum you will find, perhaps, that in the course of two or three days a quantity of clotted blood will come away, with pains, something like the pains of parturition, and which may alarm the patient: this is nothing but the blood coagulated by the alum, and may be regarded as rather favourable than otherwise, as it shows that the injection has been truly thrown into the womb, and that the uterus is contracting. Of the efficacy of this remedy we cannot be judges, till it has been tried for some two or three weeks; and after this period, if you find you are gaining ground on the complaint, you ought not to be dissatisfied. In passive menorrhagia, do not forget to nourish the patient.

[1] See "Principles and Practice of Obstetricy," p. 325.

Would transfusion be available?

Whether cases ever occur in which the operation of transfusion is really necessary, I know not, but the affirmative seems probable. One case I know of, in which, under this disease, the woman was sunk so low, that a further gush from the uterus destroyed her, and this, too, although on inspection there were no discoverable traces of organic disease; so that there seemed to be little doubt that transfusion might have been used with the best effect, but the remedy was not at the time well understood. On one occasion only have I myself had an opportunity of examining the uterus after death, where the patient died of menorrhagia. In this case I found the uterine cavity larger than it ought to be; I found, moreover, that the whole uterus was somewhat bigger than ordinary, as if there had been a great determination of blood upon it; and the inner membrane, which was more vascular than usual, and somewhat pulpy, appeared clearly to be unaffected with any marked organic disease, excepting the dilatation of the capillaries. I may observe here, that although I have once only inspected the womb after death in these cases, I have repeatedly and carefully examined it during life, and sometimes I have found it of the ordinary size, and more frequently soft, more or less open, and two or three times larger than in its healthy state. These enlargements are frequently connected with preceding miscarriages.

Caution in treatment.

In both forms of menorrhagia, whether the active or the passive, beware of an over activity in your practice. Most cases would, I suspect, be found to cease, sooner or later—say at the end of two, four, or six months—even if left to themselves; and as there is a reasonable hope of a spontaneous cure, though slow, there is the less necessity for having recourse to violent remedies. In medicine it is good to know when you ought to be active, and it is better still to know when you ought to be quiet.

Diagnosis.

To make a correct diagnosis in treating both forms of the complaint, is of the utmost importance, for bleedings from the uterus may arise, not from mere functional affection, but from organic change, pregnancy, hydatid, scirrhus, cancer, polypus, or mole. In dubious cases, it is by examination only, and by an examination deliberately, extensively, and adroitly made by those who, from much experience, possess this small yet very useful obstetric accomplishment, that the point can be brought to a decision. Independently, however, of these nicer investigations, the diagnosis may often be effected, provided attention be not wanting.

In most instances, pregnancy may be known by the usual signs;[1] by examination made with ordinary care, and by the age of the disease as compared with the bulk of the uterus.

Hydatids, not easily detected at first, may, sooner or later, be recognised by the signs of pregnancy, by sudden enlargement of the uterus, by occasional gushes of water, by the escape now and then of a delicate membranous cyst, consisting of a ruptured and detached hydatid.

Cancer of the uterus and scirrhosity, whether tubercular or diffused, is best detected by careful examination; nor is there, so far as I know, any other certain method by which it may be discovered in the more obscure cases. The mode of making these examinations was largely explained when I treated of the distinctions in this important disease.[2]

Polypus of small size, within the cavity of the uterus, and not to be detected by the touch, may produce much pain and flooding; but, happily, these cases of difficult distinction are so rare and anomalous, that in ordinary diagnosis, unless special considerations lead to a suspicion of them, they may be thrown out of the account. Ordinary polypi, growing from the mouth, neck of the uterus, or the vagina, may be discovered at the first touch; so also when they are in the uterus, provided the mouth is beginning to open. Rings of concreted blood—annular coagula, as they may be called—sometimes formed by consolidation round the body of the polypus, may now and then demonstrate its existence.

Moles, when small and in a close-shut uterus, may not be discoverable; the disease, however, is itself not common, and, when existing, may sooner or later be detected by uterine pains, by some protrusion at the mouth of the womb, and by an obvious enlargement of the bulk of the uterus. Of course, we must always distinguish carefully between the active menorrhagia and the passive, and this distinction will, I conceive, be easily made by means of the diagnostic characters which have already been given of the two diseases.

Cases may now and then occur in which the diagnosis really cannot be made with certainty: in these cases, it is best to treat the patient on the general antihemorrhagic principles laid down for the management of uterine bleedings or floodings, abstaining from all the more decided measures, until, in the progress of the case, we perceive that more light has been admitted, and that its nature may be more clearly discovered. At this time it may become proper to investigate again; one or two months may make great changes in the diagnostics.

[1] See "Principles and Practice of Obstetricy," p. 153.
[2] See Sections xxi, xxii, &c.

Conclusion.

Among a variety of remedies the ergot of rye is said to have much power in checking uterine bleeding; it deserves a trial, in the passive bleedings especially. Copaiva, oil of turpentine, and occasional gentle emetics, are supposed to be antimenorrhagic in these cases; they may be tried in their turns. For further hints relating to the management of the uterine bleedings, I must refer you to the method of treatment laid down for the flooding cases.[1]

SECTION L.

MEMBRANOUS DISCHARGE FROM THE UTERUS.

Women not infrequently labour under a discharge of membrane[2] from the uterus, which membrane may vary in its superficial measure, the piece being sometimes no broader than the nail of the little finger, and sometimes as broad as a half-crown piece, or broader, not to mention the intermediate measures. This membrane,[3] on the one surface, is smooth; on the other, usually rough and shaggy; and it certainly bears some little likeness to what is called the *tunica decidua* of the ovum. Month after month, when menstruation should occur, this membrane may pass away; and

[1] Principles and Practice of Obstetricy, pp. 306, 307, &c.

[2] A membranous substance was often shown me, which was usually considered as the token of an early conception, or as the casual form of coagulated blood. But on examining this substance with more attention, I constantly found that one surface had a flocky appearance, and the other a smooth one; that it had in all respects the resemblance of that membrane which Ruysch had called the villous, of the formation of which Harvey has given a very curious description, and which the late Dr. Hunter described with his usual precision, and called the decidua. To put the matter out of doubt, several years ago, I requested the favour of Dr. Baillie to examine some portions of this membrane, and he agreed with me in thinking it an organised membrane, similar in structure to the decidua. * * * And I have lately had the most undoubted proofs that it is sometimes discharged by unmarried women, and may be formed previous to and without connubial communication; and moreover, that the uterus has, occasionally or constantly, in some women, the property of forming it, at or in the intervals between the periods of the menstrual discharges.—*Dr. Denman*, p. 106.

[3] Morgagni (Epist. xlviii. Art. 2.) describes this disease very accurately. The membrane, he says, is triangular, corresponding to the shape of the uterine cavity; the inner surface is smooth, and seems as if it contained a fluid; and that it does, I have no doubt, from my own observation; the outer surface is rough and irregular. According to Morgagni, the expulsion is followed by lochial discharge. *Dr. Burns' Midwifery*, 8th edit. p. 163.

along with it there may be a red discharge, not of the catamenial kind, but sanguineous, and with concretions; and there is frequently pain, of a cutting, grinding, forcing nature, not unlike the pain of miscarriage.[1]

Remedial means of treatment.

To this disease, which is exceedingly troublesome, though not dangerous, various remedies have been applied with little avail, and I shall, therefore, enlarge the less upon it, as I cannot prescribe any effectual cure. Carbonate of iron, bark, myrrh, preparations of mercury in alterative quantities, have all been administered in their turn, but they have not been found to exert any very certain curative influence.[2] Denman, in one case, thought a solution of the sulphate of zinc in camphor mixture to be of service, by its application perhaps exciting a new and distinct action of the part.

Impregnation.

Of all remedies[3] for the cure of this complaint, impregnation is the most effectual. Denman is under a mistake, when he says that women subject to this disease are incapable of conception;[4] for

[1] In every case in which this membrane has been discharged, the women have menstruated with pain, and the discharge has flowed slowly, and apparently with difficulty, till the membrane came away, which in common cases has been in small flakes, and others in pieces equal to the extent of half the cavity of the uterus, or more, of which they retain the shape. I suspect, but my experience does not enable me to decide, that this membrane is expelled in every case of habitual painful menstruation.—*Dr. Denman's Midwifery*, 7th edit. p. 106.

[2] Dr. Burns recommends a course of active but not severe purgatives, the daily use, for some time, of the warm sea-water bath, with the internal employment of the decoction of sarsaparilla.

[3] In this complaint, present relief from pain may almost always be obtained by the use of anodynes: the following form I have repeatedly used with success.

℞. Liq. amm. acetat. ʒiij.
Syr. papaveris, ʒj.
Tinct. opii M. xx (vel pulv. ipecac. comp. gr. x.)
Mist. camphoræ ℥j.
Sit haustus 3 tiis vel 4 tis horis sumendus.

Prior to its administration a laxative should be given if necessary; after the operation of which the patient should be placed in a hip-bath, a decided mitigation of symptoms usually follows, if free perspiration can be induced. —*Dr Waller in Denman's Midwifery*, p. 108.

[4] Dr. Denman, although generally supposed to have entertained this opinion, was, no doubt, acquainted with the fact, that conception may take place with women disposed to this membranous discharge; for, in direct opposition, as it were, to one assertion, "no woman in the habit of forming this membrane has been known to conceive while that habit remained;" he afterwards observes, "that this membrane, not being uninterruptedly formed at each period of menstruation, *the capability of conceiving may exist at any interval of freedom from its formation.*"—Ed.

though conception does not generally take place, yet it is by no means impossible. One of the first recorded cases of this kind is related by Morgagni; and this was the case of a Florentine lady, who, at his suggestion, separated from her husband for a time, that different remedies might be tried. Tired with medicines which were employed without success, she again cohabited, became pregnant, carried the ovum for three months, and then miscarried. During the whole time of the pregnancy of course (menstruation being suspended) she remained clear of the disease, and for some months afterwards, but, ultimately, it recurred. Now this case shows impregnation may be accomplished, and that where this impregnation occurs, the disease may certainly be cured for a time; nor is it unreasonable to hope that a permanent cure might be obtained, at least in some cases, provided the fœtus were carried for the full period of nine months, as it seems evident that by a pregnancy complete in all its parts, a thorough change must be made in the condition of the uterus.

Diagnosis.

It is of the utmost importance that you should well understand the diagnostic characters of this discharge, for it may be, upon your opinion the character of a chaste female may depend. To miscarriage it bears a great resemblance—the grand features are the same; the pains, the eruptions of blood, the escape of membrane, are, altogether, enough, in a country town, to set every tongue in motion; and perhaps the only peremptory and decisive difference between the two affections is, that in miscarriage there may be an embryo, but in membranaceous menstruation neither the embryo nor its parts are ever seen. This disease, I am fully satisfied, may occur in women of undoubted honour. Nor is it difficult, in part, to explain this. When conception and formation occur, the deciduous tunic of the ovum is not formed by the rudiments, but it is generated by the inner membrane lining the uterus, as extra-uterine pregnancy proves. The action, therefore, which produces the membrane of which we now treat, is one to which the lining membrane of the uterus is by nature prone; but in generation this action is excited by the stimulus of the male fluid, and in this membranaceous affection it occurs spontaneously. I presume that the membrane is gradually formed during the intervals between the catamenia.

SECTION LI.

DYSMENORRHŒA.

Women are very frequently assailed with a disease, the *dysmenorrhœa*, properly so called, a painful menstruation independent of a membranaceous discharge.

Symptoms.

Under the severe form of this complaint, women are dreadful sufferers, and look forward to the catamenial period, and not without reason, with some degree of terror, for they are affected with various pains not easily described, and which are felt about the centre of the body, back, front, in the abdomen, hips, and thighs. In some cases the pains are moderate, in others so great, that the patient rolls about in bed, and ultimately, under the excessive excitement, becomes slightly delirious. It is remarkable, that in the severer case, which I am here describing, there is frequently a great deal of tenderness of all the muscles incumbent on the painful parts, insomuch, that the woman can scarcely bear that you should compress them. Irritation of the bladder, and an imperfect action of the uterus, with sparing menstrual discharge, are common in this disease; the menstruation may continue four or five days or more, and during this period the pain may be severer at one time than another; it may, too, remit from one day to another, and generally terminates as the menstruation closes. Severe as the pain is, women under this disease have scarcely any febrile excitement; and if they lie but tolerably quiet I think you will not in general find the pulse above a hundred and eight, or a hundred and ten in the minute.

Remedial measures.

Remedies,[1] as far as medicine and the customary auxiliary means

[1] Bleeding in small quantities, previous to the period, gentle purgative medicines, and opiates, of which the most efficacious is the confectio Democratis, repeated according to the urgency of the complaint, may be occasionally directed with advantage. * * * Electricity applied to the region of the uterus, before the expected discharge, has in some cases afforded much benefit.—*Dr. Denman's Midwifery*, p. 114.

Hamilton recommends the patient to go into a warm bath, take a mild purgative, and a draught composed of tincture of hyoscyamus, with or without volatile tincture of valerian, in the proportion of one, two or three drams of the latter, to be given at the approach of the discharge; to have four grains of opium, or one dram of the tincture and some starch, injected into the rectum. Other practitioners exhibit large doses of laudanum, during the pain, as a teaspoonful; and repeat it in a short time, if sleep be not procured. Dewees advises a scruple of caphor, in one draught, or ten grains every

are concerned, promise but little hope for the cure of the suffering patient. Alterative medicines, in the severer cases, are certainly of little benefit. Mercury has been given so as to act on the mouth. Preparations of iron have also been administered. I do not say those medicines are altogether without effect, or ought not to be again tried with caution; but you ought not to be profuse with your promises, or you will deceive yourself and your patient too. Leeches above the symphysis pubis, or leeches upon the orifice of the vagina may, in some cases, be tried with apparent benefit; but failure is, I fear, common. Opiate suppositories for the rectum, and the warm hip-bath, or the warm slipper-bath, are sometimes beneficial; and in one very severe case, the last entirely under my own care, and the only one so treated—the sulphate of quinine, in free doses, before the disease commenced, appeared to operate as a very effectual palliative. Of course anodynes, in sufficient quantity, palliate; they ought to be commenced before the pains are fully formed; be careful that you do not impair the general health by anodynes. It is remarkable that dysmenorrhœa, though so painful, does not necessarily do much damage to the general health.[1] Pain in itself is not necessarily dangerous, nor will it justify violent remedies. Marriage, probably, is the only certain remedy; the disease does not necessarily produce sterility, and I think there is reason to hope, that after three or four children have been produced, the state of the uterus would become completely changed, so that a cure might be expected; for, after all, the seminal fluid is the most effectual alterative for the genitals. Nor must we forget that so long as the woman is pregnant and suckling, so long, at least, she certainly remains free from the disease. The removal of the ovaries would probably cure this distressing affection, but I do not recommend it. In the last and worst states of dysmenorrhœa,

hour, until relief is obtained. If the stomach reject this, thirty or forty grains are to be dissolved in spirits of wine; a dram of laudanum and a gill of thin starch are to be injected into the rectum. Should this be suddenly discharged, it may be repeated. He also recommends tincture of guaiacum, extract of cicuta, and tincture of cantharides; the two last succeeded in cases where the guaiacum had failed, and he informs us that the last named medicine cured a lady who was affected for nineteen years. The acetate of ammonia in solution, in the proportion of fifty drops, was given twice a-day, in some sugar and water, by Masuyer and Cloquet, in cases of difficult and painful menstruation, and with decided benefit. The medicine is to be repeated in half an hour, unless the pain subsides.—*Dr. Ryan's Manual*, 3d edit. p. 331.

[1] Dysmenorrhœa is sometimes only a slight affection, though it may sometimes be attended with danger. Although usually a slight disorder, it may nevertheless lead to metritis; and even slight repeated metritis, or more frequent congestions, may dispose the uterus to serious disease, and chronic enlargement; and lastly, in cases perhaps the least unfavourable, this state of things may be inverted,—the uterus may gradually lose its function of secreting the catamenial blood, and amenorrhœa thus become complete and obstinate.—*Boivin and Duges*, p. 417.

arsenic, an acknowledged remedy for periodical affections, may deserve a trial.

Cause of Dysmenorrhœa.[1]

It has been suggested by Mackintosh,[2] that the dysmenorrhœa depends on the coarctation of the mouth and neck of the womb. This opinion deserves much attention from us in future cases; whether erroneous or not, it certainly is ingenious and plausible, and has much the air of one of the happy thoughts of genius. In the present state of my knowledge, I am not prepared to judge.

SECTION LII.

OFFENSIVE CATAMENIA.

Before I speak of the cessation of the menses, I may observe here that there are some young persons made very unhappy, because when the catamenia form, they are offensive. Dr. Whiting related to me a case of this kind, stating at the same time what he conceived to be the cause. It seems that the disease is produced, at least sometimes, by a partial closure of the orifice of the vagina, in consequence of which the catamenia have not a free escape during

[1] It seems to be dependent on an imperfect menstrual action, and so long as this state continues, conception cannot be expected to take place.—*Dr. Burns*, p. 164.

By some the disease has been thought to arise from a spasmodic constriction of the extreme uterine vessels. Thus Dr. Good observes, "The spasmodic action commencing in the minute vessels of the uterus, not only spreads externally to the lumbar muscles, but internally to the adjoining organs of the rectum or bladder, in many instances, indeed, to the kidneys; and hence an obstinate costiveness and suppression of urine are added to the other symptoms, and increase the periodical misery; the frequent return of which embitters the life of the patient, and effectually prohibits all hope of a family: for if impregnation should take place in the interval, the expulsory force of the pains is sure to detach the embryo from its hold, and to destroy the endearing promise which it offers.—*Study of Medicine*, vol. ii. p. 48.

[2] Dr. Mackintosh states, that the majority of cases of dysmenorrhœa, so far as his investigations have extended, depends upon a small os uteri. The treatment he proposes is mechanical dilatation of this orifice by means of metallic bougies of different sizes. He relates one very remarkable case of amenorrhœa treated successfully in this manner in the year 1826, and adds, "Since that period I have treated fifteen cases of dysmenorrhœa by dilating the os uteri, and have permanently cured all the patients. Of the fifteen patients, eight were either young, unmarried women, or living in a state of widowhood; seven were married and living with their husbands; of these seven, four subsequently fell with child."—*Elem. Path. and Pract. Phys.* vol. i. p. 346 and 355. *Boivin and Duges Treat. by Heming*, p. 411

the menstruating period, and that being partially retained in the vagina, putrescence and offence ensues. If the patient is taught to use a syringe, and warm water, in a proper manner, during the menstruating period, this little infirmity may be easily relieved for the time, and marriage and child-bearing will accomplish the rest.

SECTION LIII.

CESSATION OF THE MENSES.

In this climate it is usually about the forty-fifth year that the menses cease to flow, in some sooner, and in others later.[1] With some women the cessation of the catamenia takes place very suddenly; month after month the woman goes on menstruating regularly, and then there is a sudden stoppage of the discharge; but more frequently, perhaps I might add more naturally, it stops gradually; the patient misses a period, and is then again unwell; she misses a second time, and then at a more remote period the discharge again makes its appearance, and so on, at first more copiously, then more sparingly; thus the action sometimes continuing, sometimes ceasing; sometimes augmenting, sometimes decreasing; in this gradual and preparatory manner it is superseded altogether, and ultimately the system suffers but little inconvenience.

Effects of the cessation.[2]

As the cessation of the catamenia is a natural process, of course the majority of women do very well; and though females look on to this part of life as a critical period, yet they will, in general, find

[1] Some instances have occurred of their final cessation as early as the thirty-fifth year, or sooner, and of their deviation to the sixtieth year of the woman's age; but these are very uncommon.—*Dr. Denman*, p. 115.

The menses sometimes cease as early as the twenty-fifth (Haller, Dewees, and Velpeau,) year; and, on the other hand, not until the fifty-fifth, sixtieth, and sixty-fifth (Ryan): sixty-ninth (Perry); seventieth (Richerand, Majendie); sixtieth to seventy-fifth (Desarmeaux): eightieth, ninety-fifth (Lond. Med. and Surg. Journ. 1831, vol. v. p. 238); and one hundreth (Blancardi). In Abyssinia they cease at the eighteenth year.—*Dr. Ryan*, p. 44.

[2] When menstruation is about to cease, the period is called "the change or turn of life;" and many important changes take place in the constitution. The breasts collapse, the fulness of habit usually disappears, the skin shrivels, and loses its colour and softness, and many diseases appear in the womb and breasts which had laid dormant for years.—*Ibid.*

According to the statistical reports of Finlaison, Moret, Châteauneuf, and Lachaise, no more women than men die between the fortieth and fiftieth years; and Dewees contends that women are not more liable to diseases at this than at any other period of life.—*Ibid.*

that their apprehensions are groundless.[1] Still, though the majority of women do well under this process, yet not all, for there are different affections that seem to be more apt to occur about this time.

Corpulency and wasting.

At the period of the cessation of the menses, it is by no means uncommon for women to acquire more flesh than formerly; or if previously corpulent they may now become more slender. Now an overload of the animal oil may produce a good deal of inconvenience, and is certainly to be depreciated; lax bowels, occasional bleeding from the arm, spare diet, exercise, and abstinence from a beverage so much drunk in this metropolis as porter, should, by all means, be recommended in good time, for in cases of this kind it is easier to prevent corpulency than to relieve it by safe means. Some patients, however, are so prone to corpulency, that they would fatten on the slightest diet.

Cerebral affections.

In the second place, at the cessation of the catamenia, a determination of the blood to the head is also by no means uncommon, and flushings of the face, and throbbings of the carotids, and failure of the memory, and sometimes want of power in the arms and legs, and restless nights, and frightful dreams—these, and other results from afflux of blood to the head, are continually harassing them. Under this very troublesome disease women generally do well at last; in most cases, in the course of four or five years, the system gradually accommodates itself to the change, and then those cerebral affections cease, or are by no means very violent. Meanwhile it is the business of the physician to temporise and palliate. The hair may be removed, cooling lotions may be applied, cold shower-baths may be suffered to fall on the head itself apart from the rest of the body; leeches may be applied to the temples, cupping-glasses to the nape of the neck, a little blood may be taken away occasionally from the arm, and the bowels may be opened,—all these remedies may be tried; in a word, you are to recollect that in the disease under consideration, you have a sort of transfer of the increased action which used to subsist in the uterus itself to the vessels of the brain, and you must endeavour to overcome the effects of this action as much as possible, by endeavouring to keep the blood, as much as may be, away from the head, without inflicting any serious injury on the constitution.

[1] Diseases of the liver, also, make greater progress at this period, or first appear soon after it. Dyspeptic symptoms are still more frequent.—*Dr. Burns*, p. 175.

Disturbance of the digestive functions.

At the time the catamenia cease to flow, I may observe further, that we have sometimes a good deal of disturbance of the digestive organs, though not of a serious kind. I have no proof of hepatic disorganisation being apt to take place at this time, though some of my friends seem to think that they are more apt to occur now than at other periods. Inflation of the bowels, a want of appetite, gas in the stomach, constipation, and other chylopoietic symptoms —these are some of the principal affections apt to occur; in truth, they are little more than the simple symptoms of dyspepsia, and require treatment by the same methods.

Disposition to Cancer.

Again, it is said, too, that at the cessation of the catamenia, there is a greater disposition to cancer of the breast,[1] or of the womb,[2] than at other times. My own mind is unsettled on this point, but I incline to the affirmative; and as there is a persuasion among women, and among practitioners themselves, that there is a proneness at this period, it is well to keep a strict eye on the uterus, in order that if any dangerous symptoms occur, we may promptly have recourse to remedies.

Conclusion.

When the catamenia cease to flow, we have been recommended to make trial of issues, setons, blisters, and so on, as a sort of substitute for the monthly discharge. Like a great deal more of the

[1] If there be a tendency to any organic disease, it is greatly increased at this time, more especially if it exist in the uterus or mammæ; and, indeed, the cessation of the menses does of itself appear, in some cases, to excite cancer of the breast. *Dr. Burns*, p. 175.

Again, Dr. Good remarks, "The mammæ that constantly associate in the changes of the uterus, and constitute a direct part of the sexual system, are at this time also not unfrequently in a state of considerable irritation; and if a cancerous diathesis be lurking in the constitution, such irritation is often found sufficient to excite it into action. And hence the period before us is that in which cancers of the breast most frequently show themselves." *Study of Medicine*, vol. v. p. 65.

[2] If there be a disposition to disease in the constitution, especially in the uterus, a more rapid progress is made when the menses cease; not most probably because these give existence to or promote disease by any malignant quality, but because the constitution, or the parts disposed to disease, are deprived of a local discharge, by which they were before relieved. * * * It is a well-known fact, that the uterus, breasts, and every part concerned, directly or indirectly, in the act of concubinage, is more liable to disease at or soon after the final cessation of the menses than at any other time of life; and that these too frequently terminate in scirrhus or cancer, with consequences the most painful and deplorable. *Dr. Denman*, p. 115.

ancient practice, however, this has gone into the shade; but though I should by no means recommend it on ordinary occasions, yet in the more obstinate cases of diseased cessation, and when, more especially, the blood tends toward the head, these remedies ought not, I think, to be lost sight of.

SECTION LIV.

TYMPANITES UTERI.[1]

Tympanites uteri is a disease, under which gas forms in the uterus. I never met with a case in which the womb acquired a very large size, say that of an eight or nine months' pregnancy; this, however, is said to occur; but collections of gas in the uterus in smaller quantities, say to the measure of two or three ounces, are by no means of an infrequent occurrence.[2]

Frequent with hysterical Women.

Hysterical women are very liable to an inflation of the bowels, so that the lower class denominates hysterics "*wind*," and not inaptly. This gas, I strongly suspect, is not evolved from food taken into the stomach, but is really a secretion formed by the inner membranes of the stomach and bowels. You will sometimes find your

[1] The "*Physometra*" of Sauvages and later nosologists.

[2] Tympanites of the uterus has been described under two forms; in one, the air is formed in the cavity of the uterus, is retained for several months, distends it to a considerable magnitude, and is then expelled; of this I have never seen one instance; for the other form, of which I have known several examples, a better name would be *flatus* of the uterus. Air is formed in this organ; but, instead of being retained, so as to extend the uterus, it is expelled with a noise many times a day. It has been doubted whether it really comes from the uterus; but in one of my patients there was a circumstance conclusive on this point: she was subject to this infirmity only when not pregnant; but she was a healthy and breeding woman, and the instant she became pregnant her troublesome malady ceased. She continued entirely free from it during the whole of her pregnancy, but a few weeks after her delivery it returned. *Dr. Gooch on Diseases of Women*, p. 241.

"It has been said," observes Dr. Denman, "that wind may be collected and retained in the cavity of the uterus till it is distended in such a manner as to resemble pregnancy, and to produce its usual symptoms; and that by a sudden eruption of the wind, the tumefaction of the abdomen has been removed, and the patient immediately reduced to her proper size. Of this complaint I have never seen an example, but many cases have occurred to me of temporary explosions of wind from the uterus, which there was no power of restraining." *Good's Study of Medicine*, vol. v. p. 443.

patient under a paroxysm of gaseous secretion, throwing herself on the bed, and eructating air from the stomach continually, for two or three hours together, many cubic feet being emitted, till the patient at length falls back upon the bed exhausted. A distinctly marked case of this kind I have met with myself, and Mr. Gaitskell has met with others. Now the tympanites of the uterus, of which I speak, occurs more especially in these hysterical women, and it is not impossible that just in the same manner as the inner membrane of the bowels secretes air, the inner membrane of the womb may secrete air also. Add to this, that air tumours have been found in the body without communication with the external surface, or with the cavity of the bowels; and that fish, many of them, regulate their specific gravity by an air-bladder, which may be filled with gas, or not, at pleasure, these bladders being well supplied with blood-vessels, and the air being most probably produced by an action of the will; the very function and office of the bladder seems to require this. Why, then, may not the uterus secrete gas also? Sterility is not a necessary result of this secretion of the air into the uterus; I have, myself, known pregnancies subsequent to tympanites, and I have known the disease to occur very soon after delivery, say in the course of three or four months.

Treatment.

When tympanites attacks the patient, it produces an uneasy feeling of uterine distention, and, the womb contracting, it may expel the gas, not always inaudibly, which is of course very unpleasant to the patient. On pressing above the symphysis pubis, the womb appears to be enlarged, and by this pressure gas may be expelled; hence to relieve the disease, the patient may occasionally retire to her bed, and lay her hand on the uterus, the proper place being pointed out to her, and then she may make a strong pressure there, partly with the hand and partly with the muscles, and thus part of the air may be expelled, though sometimes not very suddenly. If necessary, the region of the womb may be pointed out, but this is frequently indicated to the patient herself, without instruction from her physician, by a feeling of pain and distention in the part where the womb lies. This disease I have hitherto seen in married women only; it seems, as before stated, to be closely connected with hysterics, and perhaps with distress and agitation of mind.[1] Drugs appear to be of little avail, and the best of all cures is pregnancy. During the continuance of the paroxysm, perhaps a tube might be inserted into the neck of the uterus, and left there, with advantage, so as to give vent to the gas. No competent investigator can be at a loss in making a distinction between these vaginal emis-

[1] Cleanliness should be observed, and some little benefit might probably be derived by the use of injections, either of pure water, or a solution of chloride of lime, alum, sulphate of zinc, catechu, or diluted port-wine. —Ed.

sions of gas, which are of uterine origin, and those which are derived from the intestines when the rectum and vagina are in communication with each other in consequence of some preceding disease.

SECTION LV.

PRURITUS OF THE VULVA.

Women are sometimes affected with a very distressing disease, and not of infrequent occurrence—the *pruritus* of the vulva, as it is called.[1]

Symptoms.

Under this disease, there is a great deal of irritation, sometimes seated in the *mons veneris*, and the parts contiguous, and sometimes towards the perineum. Together with the itching, there may be a smarting, stinging, and feeling of acupuncture; or, as it is popularly termed, " pins and needles," the symptoms together being so severe, as to rob the patient of her rest at night, and destroy her comfort during the day; she cannot sit still in her chair, or lie in peace in her bed, but is continually harassed by the stings of this very troublesome disease.

Causes.

Pruritus of the vulva, where it is found in the severer form, more especially if it is idiopathic, that is, unconnected with any other more formidable disease as its cause, arises, sometimes, where there is inattention to purity—from insects which infest the tufted growth on this part of the body, and preparations of mercury, turpentine, tobacco, and so on, and the removal of the hair, will speedily put an end to so disagreeable an affection. Again, pruritus may be produced by cutaneous eruptions, and is then relieved by the various remedies for this disease, by tar, sulphur, and mercury, in all their various forms. Pruritus may, moreover, be produced by *ascarides* in the rectum, for these worms may give rise to great

[1] The worst species of this troublesome disease occurs during pregnancy, and, according to Dr. Denman, when the child is dead. It may appear at any period of life, and may be induced by diseases of the bladder, vagina, or womb. *Dr. Ryan*, p. 246.

Dr. Denman, however, observes, " The instances of pruritus either preceding or accompanying truly cancerous disposition of the uterus are very rare." *Introduction*, 7th edit. p. 38.

irritation externally. A smart dose of calomel and scammony is said to expel them—at least, for a time; but if the ascarides in the rectum are attacked locally, I apprehend they may be brought more certainly away; and the strong decoction of worm-seed,[1] or any very strong bitters, or the oil of turpentine, properly prepared in the form of injection, may be thrown into the bowel with the fairest prospect of expelling or destroying these vexatious parasites. With pregnancy, it not infrequently happens, that pruritus is connected, and when this is the case, as gestation advances, she gets rid of the disease, or, when delivery takes place, the disease ceases. More especially the patient is distressed with the pruritus at night, and a very efficient palliative, for it is nothing but a palliative, consists in having a pailful of cold water by the bed-side, taking a sponge and dipping it into the water, and then applying to the vulva; the sponge, as it gets warm, being refrigerated afresh. Lastly, pruritus, in the severest form, may arise without any very obvious cause, and it seems to take place, more especially, about the time of the cessation of the catamenia; a few very obstinate and distressing cases I have seen of this kind.

Treatment.

As to the cure of pruritus in the severest form, especially when occurring about the time of the cessation of the catemania, I cannot say I am yet in possession of any effectual cure for it. In the way of palliatives, anodynes may be tried locally; the refrigeration of cold water, and the preparations of tobacco, digitalis, lead. With a view of producing an altered action, mercurial ointments, blue, red, and white, and lotions, may be tried in their turns; as a temporary palliative, blisters are thought to be of service, and though blisters in this part of the body are not very convenient, yet women sometimes submit to the action of the blister rather than to the continued irritation of the pruritus. While the blister is drawing, according to Haighton, relief may be expected. If the itching occur at the cessation of the flow of the catamenia, it is recommended that we should take away blood from the arm every two or three weeks, in order that we may imitate the discharge of the catamenia, to the cessation of which the pruritus is referred. Of this practice I have little experience. I have tried very strong solutions of the nitrate of silver,[2] and certainly as a palliative the remedy seemed to be of service, but as a radical cure it failed; and I am afraid, in the present state of our knowledge, we must, in this disease, merely look to the palliation of symptoms by means of anodynes and other

[1] Artemisia Santonica.

[2] Dr. Waller, in his practice, has seen great relief procured by application of a solution of the nitrate of silver, beginning with five grains, dissolved in an ounce of distilled water, and gradually increasing it to ten grains. *Dr. Waller, in Denman's Introduction*, 7th edit., p. 39.

measures, trusting the radical cure to time. In the course of a few months it may become materially mitigated, but, unhappily, the disease may, to my knowledge, last for two or three years, or more, and sometimes much longer. Pruritus, be it remembered, does not carry with it any disposition to cancer; let the patient clearly understand this, for she is then less likely to distress her mind with needless apprehensions. A fair trial has not yet been given, as far as I can learn, to injections into the cavity of the womb, yet it is not impossible, that though a great deal of pruritus is felt about the vulva, the real seat of the disease may be in the membranous lining of the cavity of the womb itself. Thus we find, where the stomach is disordered, that there is an itching about the nose, and where there are ascarides in the rectum, an itching of the perineum and the parts adjacent not unfrequently occur.

SECTION LVI.

EXTREME SEXUAL SENSIBILITY.

We sometimes in our practice meet with females labouring under sexual sensibility to excess. This excess of sexual sensibility in the vulva may be connected with inflammation there, and when this is the case, it is the most effectually treated by leeches, poultices, and very frequent ablutions, at first with warm water, so as to keep the parts perfectly clear from all acrimonious substances. Sometimes, however, the disease has little or no connexion with inflammation; it seems to be produced merely by an irritability of the parts. In this case I should recommend, in the first place, the local trial of the antiphlogistic plan; after a few trials of which anodynes may be essayed, preparations of opium, hyoscyamus, tobacco, &c., locally administered in the form of ointment or washes. When the principal seat of the sexual sensibility has been the clitoris, or the parts adjacent, it has been proposed, in extremer cases, to extirpate this organ.[1]

A variety of this excess of sexual sensibility was shown to me in a case at St. Pancras' workhouse, by Dr. Roots, a very solid and estimable practitioner. The patient there laboured under a high degree of sexual excitement, of which she gave a very clear, and, at the same time, modest statement. She did not appear to be by any means of depraved character. There was a great excess of

[1] In Thomas's Practice of Physic, there is an account of a case of this kind, in which extirpation was tried, and apparently with success; this case, however, Thomas does not relate on the authority of his own observations, and it must, therefore, be received with more caution. *Dr. Blundell.*

irritation, and, as I thought, an evident disposition to an unsettled mind, the case approaching to nymphomania.[1] I am not acquainted with any effectual remedy for this variety of the disease; but I cannot forbear remarking, that if the patient seems to be in great danger of losing her mind, a dreadful calamity, it might be worth consideration whether the disease might not be terminated by extirpation of the ovaries. In nymphomania, more especially, this remedy might deserve attention.

SECTION LVII.

INFLAMMATION OF THE LABIA PUDENDI.

Between the folds of the labia pudendi there lies a full quantity of cellular web; in more advanced age, containing but little adeps, but sometimes loaded with this substance in the vigorous and flourishing period of life. Now, like the mammæ of women, the labia pudendi, though more rarely, are affected sometimes with a phlegmonous inflammation, which, assailing the cellular tissue, tends strongly to the formation of matter, and of this I will now offer a few practical remarks.

Diagnostic Indications.

When the labia are affected with phlegmonous inflammation, they become twice as large as in the healthy state, or may exceed these dimensions. In this state of enlargement they become red and very painful and tender, so that the slightest pressure gives rise to uneasiness, and it is generally necessary to keep the limbs apart from each other. Suppuration is apt to occur very rapidly, insomuch that in the course of four-and-twenty or six-and-thirty hours, a great quantity of matter may be produced, and the abscess may even show a disposition to point.

Early Treatment.

In treating cases of inflammation of the labia pudendi, there will be little difficulty, provided their character be once clearly ascertained. If the patient be of a *robust and plethoric* habit you may, if you are called early, bleed from the arm, purge, give digitalis, and, in a word, put the patient on the cooling antiphlogistic plan. Generally, leeches and fomentations, and poultices, and perhaps

[1] "Nymphomania," or "furor uterinus," is a disease very rare, or even unknown in this country.—Ed.

refrigerating washes, may be applied to the part; all this not so much in the expectation of preventing altogether the formation of matter; for where you have an active inflammation in these parts, matter is almost sure to form; but, under the hope, that when the matter is produced, the quantity will be much smaller, and, consequently, that the cavity of the abscess will be much less, provided the inflammation be moderated. Should the phlegmonous inflammation occur in *weakly* and *irritable* females, this active treatment would be too violent; in cases concurring with such constitutions, leeches, poultices, fomentations, cooling washes, will be found to give relief; and if the patient is moderately strong, some blood, perhaps, may be taken from the arm, but in the smaller quantities. The bowels should be opened somewhat briskly, and the digitalis may be given, as before directed, in operative quantities, with caution, however, and so as to act lightly on the system, for the digitalis is a remedy not without its risk, especially in weak constitutions.

Treatment of the Abscess.

When matter forms, it may be better not to puncture the abscess, and discharge the matter too hastily; because it is asserted, that when these abscesses break of themselves, they heal in a more kindly manner than when they are opened by the lancet. In ordinary cases, therefore, I should poultice the abscess, and suffer it to open of itself;[1] but if the woman suffered a great deal of pain under accumulation of the matter, in consequence of the distention of the inflamed skin, I should not hesitate to advise a small opening with the lancet,[2] so as to relax the skin somewhat; or if the accumulation of matter were very large, say to the measure of half a pint, I should consider whether the matter might be drawn off by little and little, in the way recommended by Mr. Abernethy, not scrupling to open by the lancet in such cases, in order to prevent the large chasm which forms, if the skin open spontaneously. If the general health be bad, this must be amended during the healing of the abscess; attend, also, to the state of the chylopoietic viscera; support the vascular system by bark, bitters, aromatics, chalybeates, and analogous remedies; send the patient into the country, and you will probably find in the majority of cases, the abscesses will heal pretty readily. Should the abscess still remain open, it then comes to be considered, whether you should lay it thoroughly open and bare, letting it heal up from the bottom by granulations;[3] but I for-

[1] Owing to the subcutaneous fascia of the labia, these abscesses never break outwardly. *Burns' Principles*, p. 59.

[2] The lancet should not be used if it can possibly be avoided, since, from the vascularity of the parts, considerable hemorrhage is likely to occur. —Ed.

[3] This plan is recommended by Mr. Hey. *Surgical Observations*, p. 138.

bear to dwell on this point of practice, as it falls more under the department of the surgeon than the obstetrician.

SECTION LVIII.

EXTRAVASATION OF BLOOD INTO THE LABIA, ETC.

It sometimes happens that blood-vessels are giving way in the labia pudendi, or nymphæ; and this, where the parts are injured from delivery, or perhaps independent of parturition, or any very obvious and adequate cause.

Diagnostic indications.

When blood is effused into the labia pudendi and parts adjacent, the organ enlarges to an enormous size; it may become bigger than the child's head, appearing very black, and giving rise to excessive pain, owing to the exceeding tension of the skin, and, of course, it alarms the patient exceedingly, especially if she suspect mortification. In some of these cases the skin bursts open, and the blood may be very copiously discharged. It is said the life of the patient may now and then be endangered by the bleeding, but this is certainly rare: I never saw one of them.

Treatment.

Should the skin be ruptured, and the blood flow somewhat plenteously, if you could find out and reach the bleeding vessel, the most effectual way of giving relief, would be by securing it with ligature; if this could not be accomplished, then you might plug the vagina with tow, so as to prevent internal bleeding, following up this measure by a continued pressure on the part, the patient being kept perfectly at rest. If blood is accumulating in the labia pudendi, and you are called early to the case, the skin as usual remaining unbroken, it may then be proper that you should puncture the labia pudendi, and discharge as much blood as may be, in this manner; this practice, however, is proper only where you have been called early, and where you believe the blood is in a fluid state; for if you are called in, an hour after the accumulation has taken place, the blood may be coagulated and entangled, so that to express it may be impracticable; but it should be remarked here, that where blood is received into the cellular web, or under the skin, there is reason to believe that it does not coagulate so soon as where it is received into a cup, where there is no vitality at all.

Where blood is effused into the labia pudendi, especially in the smaller quantities, you may endeavour to get rid of a good deal of it by absorption; in this view pressure may be made with a prospect of advantage; and sometimes astringents, in the way of a poultice, may be used with benefit; and, of these latter, one of the most promising, though somewhat antiquated, is the "lees of port-wine" mixed up with linseed or bread, so as to give it a proper consistency; this being applied to the vulva of the patient three or four times in the course of the day.[1]

Should all these means fail you, as it is not unlikely they may, the blood lying in the cellular web may be expected ultimately to excite irritation, and may, in this manner, give rise to more or less inflammation, and terminate in the formation of abscess, on the disclosure of which, the coagulated blood may come through the opening in the form of sloughs. Abscesses of this kind must be treated on the general principles of surgery, great attention being paid to the constitutional health, and there is every reason to hope that the patient will ultimately recover from a disease not obviously dangerous. Let me add, however, that my own personal experience in these cases is small.

SECTION LIX.

ŒDEMA OF THE VULVA.

The vulva sometimes enlarges exceedingly, in consequence of œdema. You may have the principal enlargement in the labia pudendi, or nymphæ, or clitoris, or in all the parts together, while there is very little effusion in the legs; or again, there may be, in concurrence with a swelling of those parts, an anasarcous swelling in the legs of no small bulk. If the enlargement is of the labia pudendi, and not of much inconvenience to the patient, you may then endeavour to palliate the evil by means of a well adjusted T bandage; bringing it to a full degree of tension, and thereby expelling much of the water into the surrounding cellular web, and so relieving the patient from much of the intumescence. Moreover, in these cases, it is proper to purge, and to have recourse to those

[1] A case was narrated to me by a medical friend, on whose authority I give it, in which a man had received a blow on the muscles of the calf of the leg, and where there followed a considerable effusion of blood under the skin; a poultice of the port-wine lees was applied to it, and though it was computed that at least half a pint of blood was effused under the skin, a great part of it was absorbed in the course of a fortnight.—*Dr. Blundell.*

medicines[1] which are suited to anasarca. It will be asked, perhaps, here, whether we may not puncture the skin? In the general, women themselves would not submit to this operation, being naturally timid; now and then, however, some of firmer resolution may wish such an operation to be performed. Now, in coming to a determination, it should be recollected that if the œdematous swelling of the labia pudendi is purely local and unconnected with dropsy of the constitution, the probability is, that you may puncture the skin with perfect safety; but if, on the other hand, this swelling is only a part of a general dropsy of the whole habit, then, as you all know, the puncturing of the skin is attended with some little danger, because, sometimes, mortification may ensue; so where the constitution is vigorous, puncture if you please; but where it is not, and where there is a disposition to general dropsy, it is better to refrain from the lancet. If you do puncture, do not content yourselves, as some have done, with the mere division of the scarf-skin, but take care that you carry your lancet completely down into the cellular web beneath.[2]

SECTION LX.

EXCRESCENCES OF THE VULVA.

From the vulva, not infrequently, excrescences are growing, sometimes verrucous, sometimes fleshy, and varying exceedingly in size, being as large as a pea, or as large as the fist, and of all the intermediate dimensions. Of these excrescences, some may be removed by caustic, red precipitate, savin powder, nitrate of silver, or the like, care being taken to apply the caustic to the root of the excrescence, for this seems to be the most effective mode of application. Those excrescences which resemble polypi, may be removed by ligature; if they hang by a peduncle, the application of the ligature is easy; if they have a broad basis, then take a needle and place it on the middle of a thread of proper thickness, and carry the needle through the basis of the excrescence, and cut the needle away, thus leaving two ligatures to be tied right and left. In some cases extirpation of these excrescences by the knife may be neces-

[1] Blisters applied to the vicinity of the part have been proposed; but they are painful and even dangerous. *Dr. Burns*, p. 64.

[2] A flannel wrung out of some emollient fomentation, and applied to the parts when they have been scarified, will contribute to the easy and perfect discharge of the fluids. *Dr. Denman*, p. 31.

It is not unusual for these swellings to return two or three times towards the conclusion of pregnancy; in which case, or even in the time of labour, the scarification, if necessary, may be repeated. *Ibid.*

sary. All I have to remark upon this operation is, that when you do extirpate by the knife, you ought carefully to take away the whole of the diseased structure. As to the mode of operating, that is for the consideration of the surgeon. These excrescences may be connected with venereal affection, a point, of course, to be investigated.[1] They rarely terminate in cancerous affections, and this should be most distinctly stated to the patient.

SECTION LXI.

ENLARGEMENT OF THE NYMPHÆ.

It not very uncommonly happens that the nymphæ enlarge; in the Hottentot women,[2] more especially, they are sometimes so large that they form a sort of covering to the vulva, nor are our own females of the Caucasian variety of mankind altogether free from this defect. Of these enlargements there are two kinds; sometimes the nymphæ increase in their size without altering in their organization, so that as to their remoter structure they remain healthy enough, only the growth is morbid; and in other cases there is a total change of organization, the parts becoming converted into a sort of scirrhous mass. The larger growths of the nymphæ should, I presume, be extirpated by means of the knife; where the growth is small, a pair of scissors may answer the purpose, and by a single cut you may take away so much of the nymphæ as may be required to reduce them to their healthy dimensions. Ligatures are not required generally, for though there are many vessels in this part, yet they are all small; it will probably be sufficient to make a little pressure on the part that remains, with the thumb and finger, say for ten or fifteen minutes, when the hemorrhage will cease. There is reason to suspect that the enlargement of the nymphæ may be connected with the venereal disease; in operating, therefore, upon those whose ethics are of the laxer kind this fact should not be forgotten; but large nymphæ do not prove infection.

[1] Even when there is an offensive discharge from the fungi, or warts, we are not always to conclude that they are syphilitic, but be guided in our judgment by concomitant circumstances. * * * Should there be ground for suspecting a syphilitic action, mercury must be given, at the same time that we make suitable local applications; but in doubtful cases, I have seen this medicine given without any benefit. *Dr. Burns*, p. 62.

[2] The females amongst the Bosjemans have the nymphæ sometimes five inches long. Their colour is a livid blue, like the excrescences of a turkey. *Barrow's Travels in Africa*, vol. i. p. 279.

SECTION LXII.

ENLARGEMENT OF THE CLITORIS.[1]

As the nymphæ may enlarge, so also may the clitoris, and under this disease the organ, though naturally very small, may sometimes become as large as the corresponding organ in the male. If a woman is anxious to have this defect of the genitals remedied, provided there is no change in the organisation of the clitoris, but merely an increase of its bulk, I presume, that by means of a knife the exuberant structure may be very easily and safely taken away; if, on the other hand, there is a change of organisation, which sometimes happens, the clitoris being converted into a scirrhous mass with irregular surfaces, disposed perhaps to malignant ulceration, then it may be extirpated with the knife too, but you are less certain of success. When you are operating, more especially when there is disease at the basis, it should be your object to take away the whole of the disorganised mass.

SECTION LXIII.

PARTIAL OBSTRUCTIONS OF THE VAGINAL ORIFICE.

Women are liable to be affected with partial obstructions of the vaginal orifice; either the hymen is merely cribriform, or, at all events, though of the usual circular or crescentic shape, it obstructs the orifice, which may be of small diameter, very completely. Now this obstruction of the vagina gives rise to various incidents, and which are worth a little observation. In the first place, when the catamenia occur, they are liable to become, in a high degree, offensive,[2] this resulting pretty evidently from their not flowing freely away, but remaining in the vagina and becoming putrescent. The disease once understood may be easily relieved by the use of the syringe and warm water, ablution being performed, if necessary, three or four times in the course of the four-and-twenty hours, and the natural dilatation of the orifice will ultimately complete the cure of the disease. When the genitals are thus partially obstructed, another consequence of the obstruction is, that if the hymen be

[1] This disease seldom occurs in temperate climates, but in tropical countries it is very common, insomuch that excision of it is said to be sometimes practised. An enlargement of the clitoris is probably the most common cause that has led to mistakes concerning this sex. *Beck's Medical Jurisprudence*, 5th edit. p. 76.

[2] See also section LII.

firm and the patient be too sensitive—from the operation of both these causes, her person may not be penetrated; or if the obstruction be of the higher degree, supposing the hymen, or whatever be the cause of the obstruction, to be unusually firm, then if the parties be resolute, the male organ may actually enter the urethra. A case of this kind is related by Chambon; and in these cases, the woman undergoing a vast deal of pain on her marriage, is seized with incontinence of urine, and is compelled, perhaps, after no long time, to separate from her husband, though the disease, when properly understood, may, with the help of a little surgery, be relieved at once.

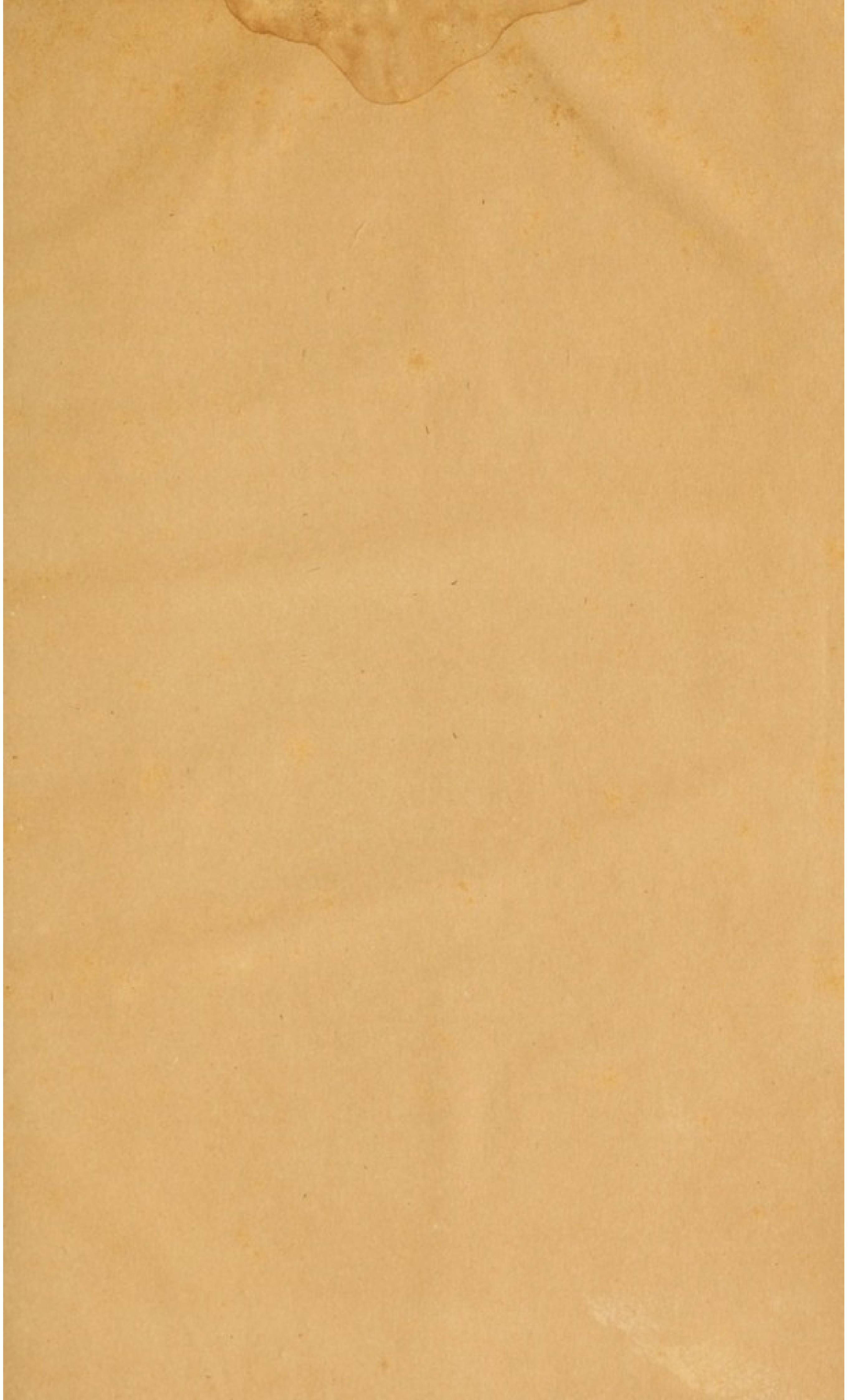
Constriction of the upper half of the vagina.

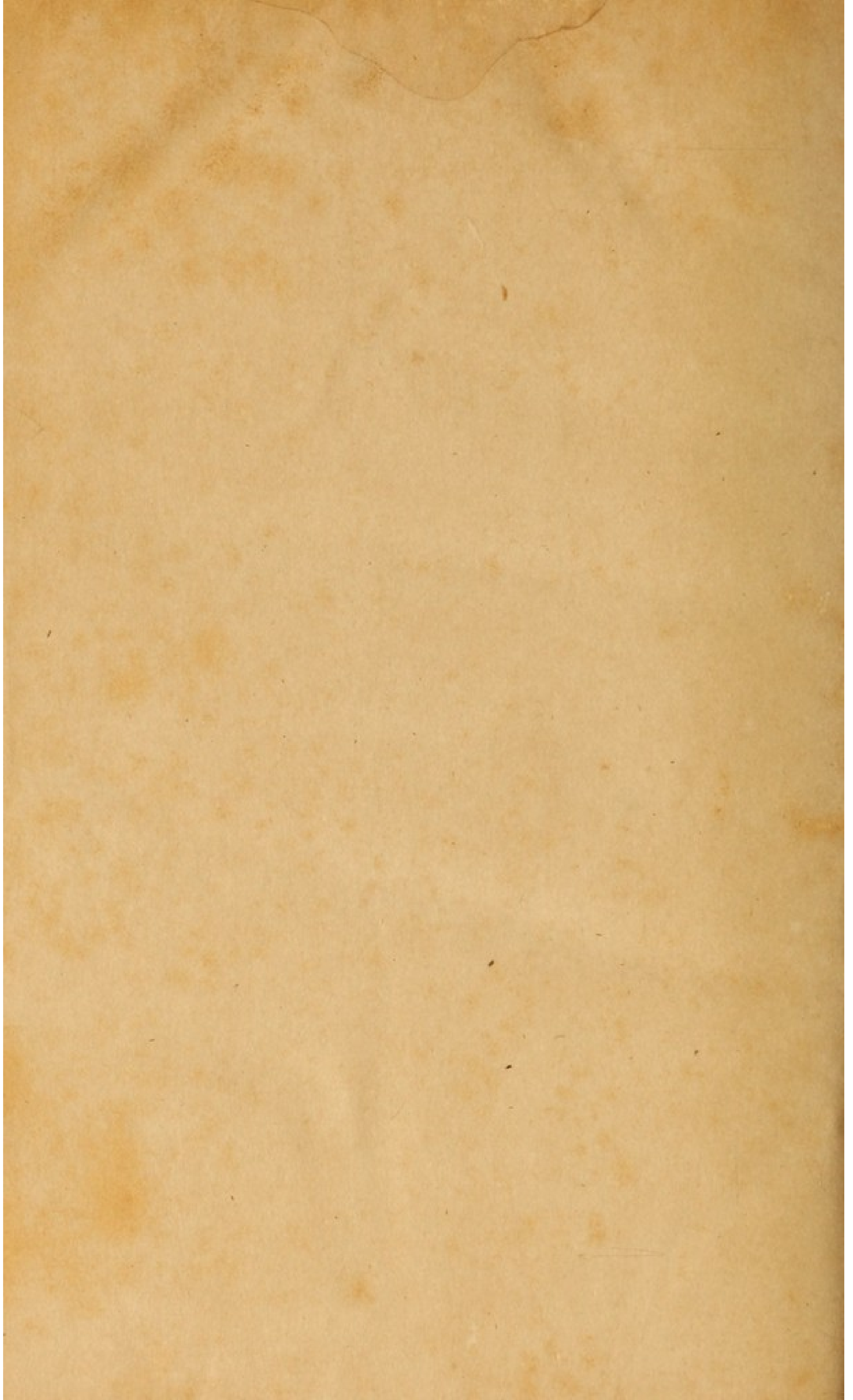
There are two causes of these obstructions; for the hymen may be unusually firm and strong; or when the hymen is healthy, constriction of the upper half of the vagina may occur, just as if you had thrown a thread around it, and partially closed it by ligature; defects which a little examination would detect, and which admit of effectual relief. When intercourse is, in this manner, obstructed, and the male organ does not enter the vagina, the consequence is not necessarily sterility; for so powerful is the fecundating fluid, that impregnation may be accomplished, and sometimes very rapidly. In Chambon's case, where the parties separated not long after marriage, and the urethra was laid open, and the hymen contained two small punctures only, large enough to transmit a probe, nine months and a fortnight after marriage, the girl was delivered of full grown twins; so that not only impregnation, but an impregnation had taken place of two vesicles at once. Though, however, sterility is not necessarily the consequence of partial closure, I conceive that unless the woman be very apt to produce children, it is very likely to occasion a delay of the impregnation; and, therefore, you must set down, I think, among the effects of partially obstructed genitals, an impediment to conception. A lady, the wife of a medical man, after having been married for some years, and producing no children, observed an enlargement of the abdomen, and a swelling of the legs, her general health becoming not a little impaired, and alarmed by these symptoms, she was advised to retire to Bath, with a view to the restoration of her health. Thither she went, but found no improvement; and the abdomen continuing to become larger, and her health seeming still to decline, she determined to return to town. On her way back, she was seized with vehement abdominal pains; and the woman of the house, where she was, having been herself a mother, said she was satisfied that these pains were no other than the pains of labour; and though the lady herself seemed to be persuaded to the contrary, an obstetrician was sent for, when it was found that the patient laboured under a cribriform hymen, which partially obstructed the genitals. Now, in this case, as in that of Chambon, impregnation was accomplished, but not, as in

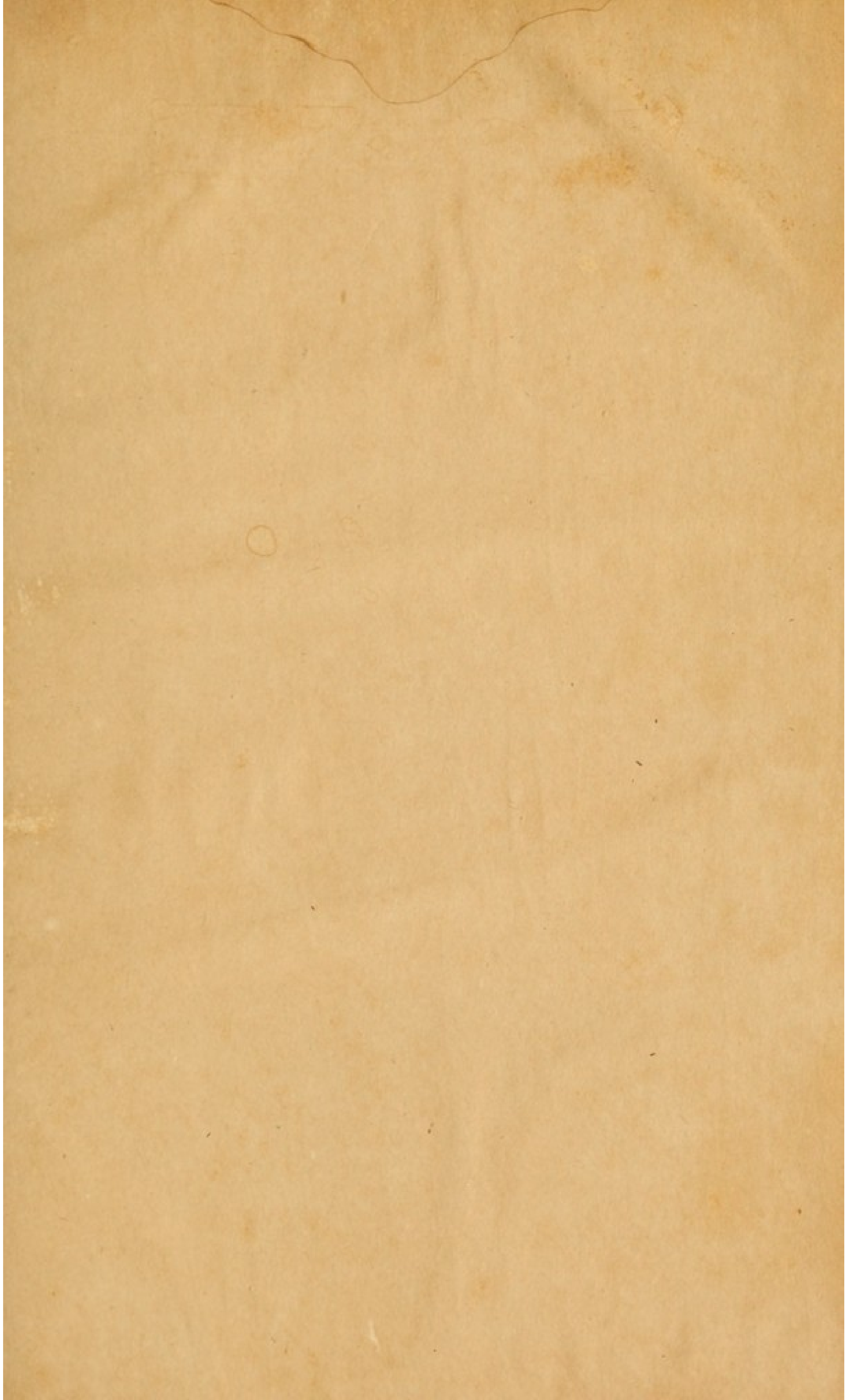
the French girl, speedily; for, as I before stated, the impregnation here was delayed for several years, in consequence of the partial obstruction[1] of the vulva. And here it may be observed, by way of corollary, that whenever intercourse is impeded or sterile, we ought, by all means, to inquire into the state of the hymen; for it not very infrequently happens that, from the strength of this membrane, and the sufferings which arise from pressure, the designs of nature are frustrated; and not infrequently the male imputes to his own want of power, what, in reality, is in good measure, at least, to be ascribed to the timidity, the sensibility, and the over firmness of the female. The most effectual and natural cure is impregnation, which may, I know, sometimes, perhaps often and speedily, be accomplished without penetration; for if once impregnation occurs, then the passages at birth will be laid open completely.

[1] Foderé quotes a case from Fabricius, where the husband demanded a dissolution of the marriage, from the impossibility of having perfect connection, in consequence of a dense substance partially covering the orifice of the vagina. The female, however, declared herself pregnant; and by an incision into the membrane the obstacle was removed, and the pregnancy completed at the time indicated. *Foderé*, vol. i. p. 389. *Beck's Jurisprudence*, p. 63.

THE END.







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