On internal tumours : their characteristic distinctions, and diagnosis / by Walter Balls-Headley.

INTERNAL TUMOURS.

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THEIR

CHARACTERISTIC DISTINCTIONS,

AND

DIAGNOSIS.

BY

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PREFACE.

HOLDING the diagnosis of disease to be of the first importance—that is, believing that, whatever be the system of treatment adopted, it is first necessary to know what is the disease to be treated—I venture to put forth a treatise on the Distinction of Internal Tumours—one of the, if not the, most difficult class of cases that occurs; which very closely affects domestic life and happiness; and of which, from extensive opportunities of studying the diseases of women, I have seen many examples.

Failures and errors have happened to all; but experience in the past gives greater probability of success in the future.

For the benefit of others we should record our knowledge of facts; and thus add our mite to the general store.

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CONTENTS.

CHAPTER VIII.

CHAPTER IX.

CHAPTER X.

CHAPTER XI.

CHAPTER XII.

CHAPTER XIII.

CHAPTER XIV.

CHAPTER XV.

CHAPTER XVI.

ON THE DISTINCTION

OF

INTERNAL TUMOURS.

CHAPTER I.

PERHAPS in no other class of cases is an accurate diagnosis on the part of the physician of more importance, both to the patient and to himself, than that of tumours of the abdomen, and especially of ovarian dropsy; and perhaps in no other class of cases have such grave errors been made, thereby frequently jeopardizing life, and not unfrequently being the direct cause of death. Such misfortunes but the more impress one with the necessity of the greater care and caution.

It seems an easy thing to distinguish a simple ovarian tumour, yet so nearly do various

conditions approach, that although often the nature of the tumour is evident, yet it is not unfrequently difficult to come certainly to a correct opinion; and this is demonstrated with the greater force by the fatal terminations resulting from the treatment employed by many physicians of highest eminence, and still more so by those of lesser fame and experience.

When a simple case of dropsy has been mistaken for an ovarian tumour, and the abdominal cavity therefor tapped and injected with iodine; when the pregnant womb has been pierced with a trocar; when operation after operation has been entered upon in ignorance of the concurrence of pregnancy; when the womb itself, and tumours of the womb have been removed in error; when there exist frequent examples where the subject of a distended bladder has been congratulated, on the supposition that the fluid of an ovarian tumour was dribbling away; when pregnancy-outside-the-womb has been thought to be ovarian dropsy, and ovarian dropsy thought to be pregnancy-outside-the-womb; when an enlarged or misplaced kidney has been thought

to be an ovarian tumour, from which tumours of the liver and spleen have been apparently indistinguishable; when the abdomen has been opened for the proposed removal of an ovarian tumour, and no disease whatever found; and when in addition to all these there may be innumerable complications; when such examples as these can be brought forward, we must indeed acknowledge that the subject is large and difficult; and that in some cases, only by the closest investigation of the conditions, and most accurately correct judgment of the relative importance of points in the historical evidence, is the truth to be arrived at.

CHAPTER II.

In the following pages are shortly considered the differences and distinctions between ovarian dropsy and the diseases with which it can be confounded.

First, of the arrangement, which is here formed in accordance with the plan of determining the source and attachment of the tumour, or of that which produces appearances mistakable for it.

The tumour has its origin either within the bony framework of the pelvis, or in the abdominal cavity. It is convenient to take them in this order, thus :—

A.—IN THE PELVIS,

The tumour may arise from, or be produced by conditions of—

1. The Ovary :
2. The Fallopian Tube and Broad Ligament, which connect the Ovary with
3. The Womb :

4. The Bladder :
5. The Lower Bowel :
6. The Connecting Tissue.

B.—IN THE ABDOMINAL CAVITY,

The Tumour may have its source in, or be apparently produced by, conditions of—

7. The walls of the Abdomen :
8. The Peritoneal lining membrane :
9. Its various folds, the Omentum and Mesentery :
10. The Intestines :
11. The Liver and Gall Bladder :
12. The Spleen :
13. The Kidney.

C.—THOSE TUMOURS WHICH, SITUATED IN THE ABDOMINAL CAVITY, HAVING ESCAPED FROM, REMAIN UNCONNECTED WITH, THE PART FROM WHICH THEY HAD THEIR ORIGIN, OR HAVE BECOME SECONDARILY ATTACHED.

The classification, then, of such tumours stands thus :—

Diseases and conditions having their origin in the parts or organs within the bony frame-work of

A.—THE PELVIS, CONTAINING—

1. THE OVARY, of which—
   (A) Fluid tumours may be—
      α. Graafian cystic, with or without solid matter (commonly called ovarian dropsy or tumour):
      β. Dermoid:
      γ. Hydatid:
      δ. Primary abscess.
   (B) Solid tumours may be—
      ε. Inflammation:
      ζ. Hypertrophy:
      η. Fibrous tumour:
      θ. Cancer.
2. THE FALLOPIAN TUBE AND BROAD LIGAMENT, connecting the ovary with the womb — of which a tumour may be—
   α. Distension by blood, serous, or purulent fluid
   β. Pregnancy:
   γ. Cyst:
   δ. Abscess.
3. THE WOMB:
   (A) A tumour within its cavity may be—
      α. Pregnancy:
      β. Hydatid-like degeneration of the membranes:
      γ. Distension by fluid or gas:
      δ. Fibrous tumour or polypus.
   (B) In its walls—
      ε. Misplacement:
      ζ. Hypertrophy:
      η. Fibrous tumour:
      θ. Fibro-cystic tumour:
      ι. Abscess:
      κ. Cancer.
   (C) Outside its walls, but connected with it, there may be—
      λ. Fibrous tumour:
      μ. Fibro-cystic tumour.
4. THE BLADDER, where a tumour may be caused by—
   α. Distension from retained urine.
5. THE LOWER BOWEL, where a tumour may be caused by—
   α. Impaction of fœces from constipation.
6. THE CONNECTING TISSUE, where a tumour may be produced by—
   α. Abscess:
   β. Blood poured out around the womb.

Diseases and conditions having their origin in the parts or organs of—

B.—THE ABDOMEN,

INCLUDING OR CONTAINING—

7. THE ABDOMINAL WALLS, where tumours may be formed by—
   - α. Fat and muscles :
   - β. Dropsy :
   - γ. Abscess :
   - δ. Cyst :
   - ε. Cancer.

8. THE PERITONEUM or lining membrane of the abdominal cavity, where a tumour may be produced by—
   - α. Dropsy :
   - β. Thickening :
   - γ. Cyst.

9. THE FOLDS OF THE PERITONEUM, the omentum and mesentery, where a tumour may result from—
   - α. Fat :
   - β. Cyst :
   - γ. Cancer.

10. THE INTESTINES, where a tumour may be produced by—
   - α. Flatulence, and their various positions :
   - β. Communications between the intestines and an ovarian tumour :
   - γ. Accumulation of fœces.

11. THE LIVER, where a tumour may be from—
   - α. Solid enlargement :
   - β. Cyst :
   - γ. Enlarged gall bladder.

12. THE SPLEEN, where a tumour may be caused by—
   - α. Enlargement :
   - β. Cyst.

13. THE KIDNEY, where a tumour may be—
   - α. A movable or misplaced kidney :
   - β. From distension by fluid in its pelvis :
   - γ. Cyst :
   - δ. Cancer.

C.—TUMOURS SITUATED IN THE ABDOMINAL CAVITY, BUT HAVING BECOME DETACHED FROM THEIR SOURCE, MAY BE—

α. Secondary Cyst :

β. Encysted Pregnancy-outside-the-Womb :

γ. Fibrous Tumour.

CHAPTER III.

A.

TUMOURS having their origin within the bony framework of the pelvis are recognized—

1st, By the history of their direction of growth from that cavity upward into the abdominal.

2nd, By their being found to be uninterruptedly continuous downwards into the pelvic cavity.

The former of these, if the historical evidence can be depended upon, is the more certain; since the latter condition may be produced by any tumour which has proceeded from the abdominal above into the pelvic cavity below. By a combination of the two points the pelvic origin may as a rule be ascertained.

1. *Of Tumours of the Ovary.*

(A) FLUID.

a. Graafian Cystic Tumour, simple and compound, commonly known as Ovarian Dropsy or Ovarian Tumour,

May result from a diseased state of one or more of the graafian vesicles, each of which contains a human ovum or egg, not as yet impregnated, and in various stages of maturity.

The general conditions of ovarian dropsy are such as the following—

A woman, frequently of scrofulous constitution, whose general health has been, and in the early stages remains, good; but in whom in more advanced conditions a peculiar emaciation of the head and neck, with a drawn expression of countenance, in itself almost distinctive, has supervened upon a picture of health; whose age is from 20 to 40, or very rarely above 50, is affected with a tumour.

In the first stage, some irregularity of the monthly courses is usual; which is more generally exhibited in an increased flow, or an access of pain: total suppression is rare; of which

Kiwisch says, that in the case of a rapidly growing tumour it is not without diagnostic value.

In 48 cases, more than 80 per cent. were married; and of those married 80 per cent. had been pregnant.

The disease has generally commenced with some sense of fulness, discomfort, or pain low in the body; and this, with the concurrence of sympathetic actions, as enlarged and tender breasts, and morning sickness, induces the idea of the existence of pregnancy.

The tumour has, probably, been first observed in one or other side, while yet small, or when it has already attained to a considerable size, as is not at all uncommon; yet instances are not rare where the history records the early position as having been central: 4 of such cases out of 50 had this history. The direction of growth is from below upwards, the tumour rising from the pelvis into the abdominal cavity on attaining a certain size.

The shape of ovarian tumours is very variable, being generally defined, prominent, and rounded; if containing many cysts, having one or more

bosses or prominences on the one side or the other. On great distension of the skin and walls of the abdomen, from the pushing outward of the floating ribs, the body assumes a conical form.

The rate of increase is generally such, that in from one to two years the tumour has reached to the navel. This, however, greatly depends upon the condition of health, as the condition of health depends upon the rate of increase; but under circumstances favourable to the health, a tumour may remain stationary, or go on slowly progressing; the advance being only accelerated by some accidental injurious influence, as mental emotion, hardship, &c., thus extending even up to the natural limit of life. This lengthened progress is, however, of rare occurrence; the usual rate being, that it should rise into the abdomen in from one to two years, and terminate without interruption in its course in a few years.

The size varies from that of a pigeon's egg to the utmost limit of distension, of which the abdomen is capable.

On examination, the surface of the tumour is

felt to be smooth, bossed, or divided into two or more parts by one depression or more.

In consistence it is more or less soft, or firm and elastic, according to the tension and density of the fluid; or it may be at one point soft, at another firm and hard, from the presence of a tumour in part fluid, in part solid. The degree of its range of movement is dependent upon the size of the tumour in relation to the abdominal cavity, and to the presence or absence of adhesions binding it to the peritoneal lining membrane, or to neighbouring organs.

On percussion, from its position, mode of growth, and contents, the tumour is everywhere dull, this dulness exactly corresponding with the form of the tumour; whilst the intestines around it, and on which it lies, are resonant. An exception to this is where dropsy is also present, when the flanks may also be dull. On change of posture, the tumour continuing to occupy the same position, this condition is not altered.

The presence of fluctuation depends upon the thickness of the walls of the cyst, and the tension of the fluid. In the case of a simple

cyst, it is almost always perceptible, and the wave may be felt at any part of the tumour; but in tumours containing many cysts it is often very indistinct, present only between limited points, and more evident at one spot than at another. The absence of perception of fluctuation does not negative the presence of ovarian tumour.

The quantity of fluid varies much, depending upon the size of the tumour, whether it be simple or of many cysts, with thick walls or thin, with or without much solid matter.

The colour varies from that of straw to that of blood, both fresh and in its different stages of alteration, and is not necessarily alike in different chambers or cysts of the same tumour.

In consistence, the fluid may be slightly viscid or more mucilaginous, hanging in a long unbroken line. Scales of cholesterine not unfrequently float in it. The consistence of the contents of one cell may differ from that of others in the same tumour.

Under the microscope, the flocculent matter taken from fluid, unmixed with adventitious matter, as blood, &c., is found to consist of

nucleated epithelial cells, similar to those lining the interior of the wall of the tumour. In chemical constitution, when tolerably pure and unmixed with blood, &c., it has been found to consist chiefly of albumen, salts, solid matters, and of less quantities of fatty matter and fibrin.

The mechanical symptoms, arising from the presence of such a tumour, in the early stage when it can but just be felt above the bone of the pubes, may be retention of urine and constipation of the bowels, from pressure on the tube of the bladder or on the lower bowel, whereby the descent of either excretion may be hindered or prevented. In a stage more advanced, there may be inability to hold the urine, from pressure on the base of the bladder; distension of the surface veins; dropsy of perhaps one leg or of both, or of the abdomen, from pressure on veins; difficulty of breathing; palpitation of the heart; possibly pressure on an ureter conducting the urine from the kidney to the bladder; and the scene possibly closes with the more remote result of mechanical pressure, general dropsy.

The duration of the disease is variable: in the majority of cases its course is progressive; and mechanical symptoms, resulting from the pressure of so large a tumour, necessitate interference in from two to three years; after which, if the patient have been tapped only, the rate of progress is hastened, and life terminates probably in less than the recurrence of the same period.

Other tumours may have all or many of the appearances of this disease; and in the consideration of them, the points of distinction will be noted.

β. Dermoid Tumour of the Ovary.

In position and mode of growth, the dermoid tumour of the ovary is identical with that of graafian or common ovarian dropsy. Its chief distinctions consist in its solidity and consequent firmness; which, however, by itself is not sufficient by which to distinguish it, since a graafian cyst may appear equally resistant. More important diagnostic points are its slowness of growth, and the comparatively lesser size which it attains. To quote Dr. Farre, "Dermoid

ovarian tumours rarely grow with the rapidity, or attain the enormous bulk commonly observed in those with fluid or hydatid contents." Thus such cysts rarely produce those conditions which necessitate an operation, whether tapping or removal.

γ. *Hydatid Cyst of the Ovary.*

Hydatids of the ovary are very rare, probably only existing when derived from the disease in the liver or kidney. In practice they would be indistinguishable, except by tapping and microscopic examination of the fluid drawn off.

δ. *Primary Abscess of the Ovary*

Is also a very rare disease. It might be diagnosed by the greater severity of the early symptoms, the shivering and inflammatory fever, especially in the increase of heat as shown by the medical thermometer; the size might also after a time assist. Dr. West mentions a case, which however may not have been an abscess in the first instance, in which "the abscess persisted for some time, and was finally evacuated spontaneously through the bowel."

A more common condition, in many points simulating this, yet rare, is the case in which a graafian cyst, that is, an ovarian dropsy, suppurates and finally bursts. The size of the cyst may vary, and the inflammatory symptoms be severe. Such cases are the following—

Case I.—"M. A. H., aged 55, has a tumour in the abdomen. Twelve years ago she first perceived a hardness in the right flank at the lower part of the abdomen, where she had much pain. The tumour increased for five weeks, when her courses, which had been absent for eight years, returned, and continued for two months, when they ceased and have not since recurred. About the same time she noticed that the navel, previously normal, began to enlarge. The tumour steadily increased, and she was confined to her bed. Two-and-a-half months ago she noticed the already swollen navel getting larger, and looking yellowish as though it contained 'matter;' and she had a pricking sensation at the pit of the stomach, with hot burning pain all over the bowels. At the same time she had an evacuation by the bowel of a watery fluid, mixed with a little blood. Four days afterwards

the swollen navel gave way, and a quantity of darkish fluid began to dribble away, which continued for three days, during which time she estimates the quantity passed at a pailful. The skin then healed up.

"A month ago the same thing recurred, with the loss of a smaller quantity of fluid clearer than before. A fortnight since, an opening again formed, through which she considers she lost more fluid than at first. Before each spontaneous evacuation she suffered much from tension and a burning sensation in the tumour.

"She now complains of a burning pain in the right side of the body, which extends down the right leg to the knee. The abdomen is uniformly distended; the navel appears as an outgrowth of the size of a walnut, covered with a blackish skin, and having on its summit a recently healed scar."

Though in this case the fluid discharged was not purulent, there must have been some local inflammation and ulceration, with neighbouring adhesion, before the fluid could safely have escaped through such an opening.

Case II.—"C. W., aged 30, first noticed a swelling in the abdomen ten years ago. Was tapped six months after. She then remained well until two years since, when the swelling again appeared, for which she was again tapped. Two months later matter formed, and discharged through the navel. At every menstrual period the discharge is tinged with blood."

The point of diagnosis in the former of these cases (No. I) would be the duration and size of the tumour, and the character of the fluid discharged. Probably also the inflammatory symptoms in primary abscess are more severe. The extreme rarity of this disease will in all doubtful cases be considered. The nature of the second case is evident from the history of the previous tappings. In its course, however, it sufficiently resembles the former to be worth quoting.

(B) SOLID TUMOURS OF THE OVARY.

ε. *Inflammation.*

This disease, which is by no means uncommon, but generally confined within the limits of the pelvis, closely resembles the early stage of

common ovarian dropsy, of which it may be, that it is in some cases the commencement. Both diseases are caused by severe labours; the latter in 22 per cent. out of 55 cases; the former probably in most. Inflammation of the ovary commences with severe pains in the side affected, and inflammatory fever, perhaps shiverings and vomiting; when a very tender swelling is perceived on one side of the pelvis or abdominal cavity. By rest and appropriate treatment the tumour subsides, leaving the patient in as good health as before. Such cases might terminate in abscess, though this appears to be exceedingly rare. The following is an example of acute inflammation of the ovary.

Case III.—"E. A., aged 29, was confined of a child five weeks ago, with which she was in labour nine and a half hours. At the time she lost a great deal of blood; and again after a fortnight, it then coming away in large clots for three nights, accompanied by pain. A week after this she was seized with shiverings, inflammatory fever, and great pain in the right side of the lower part of the body; where a small hard

lump was perceived, which has continued to increase up to the present time. She has no pain elsewhere, but occasionally vomits. Her pulse is 100, and her temperature is raised three degrees.

"The abdomen is generally distended, and is very resonant except on the right side of the body, where it is dully so. There is a firm, uniformly round, tender swelling, extending from the inner margin of the iliac bone to the midddle line about two inches above the edge of the pelvis. On internal examination, pressure on the abdomen produces direct impulse.

"By rest and care the fever and pain gradually declined, when the swelling began to decrease in size, and in two months had quite disappeared. It is probable that there was here also some inflammation of the pelvic connective tissue, increasing the size of the tumour."

Case IV.—"F. A., aged 24, was confined of a child, being in labour twenty hours; after which she suffered much from a pain in the right flank, where a fortnight afterwards was felt a tender swelling, and she was feverish. For a time the swelling increased in size, but in a month had

returned to its former dimensions, with less pain and much general improvement; and in a week more the tumour had almost, and the pain quite, subsided."

The former of these cases differs from the general conditions of ovarian dropsy in the shiverings, the severe inflammatory symptoms, and the tenderness of the swelling; the latter by the tenderness, and the course of the disease. Both were preceded by severe labour.

ζ and η. *Hypertrophy or increased growth, and Fibrous Tumour of the Ovary.*

These diseases are of so rare occurrence, that practically they require slight consideration. The former rarely exceeds the size of a pigeon's egg, and therefore could only be confounded with ovarian dropsy in the very earliest condition of its growth, and then but for a short time. The latter may attain a large size; the points of difference being its slow growth, its firmness and solidity, the absence of fluctuation, and of those constitutional symptoms and effects, which, at least in the later stages, accompany ovarian dropsy.

θ. Cancer of the Ovary.

Cancer of the ovary includes the varieties scirrhus or hard cancer; encephaloid or brain-like; and colloid or glue-like, from the appearance of their liquid contents. Of these, scirrhus or hard cancer is the rarest. The latter are not unfrequently mistaken for ovarian dropsy, from which in practice it is frequently almost impossible to distinguish them. There are, however, some characteristic differences.

In cancer of the ovary the patient is generally of middle age, though not invariably; the pain, frequently of a darting or burning character, the loss of flesh, and the constitutional symptoms are far more severe; the latter especially so, when compared with the size and duration of the tumour. The peculiar cancerous state of the system is present. The progress of the tumour and of loss of health are more speedy. The disease spreads to the glands and parts in the neighbourhood, where nodules may perhaps be felt. The tumour may be very large, but usually does not attain to the enormous dimensions of ovarian dropsy: it is hard and solid, or

firm and elastic ; distinctly, or not fluctuating. It appears that dropsy of the bowels is more frequent with cancer of the ovary, than with ovarian dropsy. Yet most, if not all, these symptoms may be absent, or simulated by a simple ovarian dropsy ; and what appears to be an ordinary ovarian tumour of many chambers may, on microscopic examination of its contents, be found to be cancerous : for which purpose in suspected cases a little fluid may be drawn off by a hair trocar.

It will be seen that in the two following cases quoted, both ovaries were so diseased.

Case V.—" E. E., aged 35, eighteen months ago, one month after her confinement, noticed a swelling of the size of an egg in the left side of the abdomen, accompanied by morning sickness, which has continued at intervals up to the present time. Four months after, she was seized with a fit, which left her left arm and leg benumbed. Pains like those of labour continued for three hours, when she gradually recovered the use of her limbs. After this the swelling and morning sickness increased, accompanied by great pain in the lower abdomen and left

side, resembling that of labour, increased at night. The monthly discharge appeared three months after the fit for the first time since the former pregnancy. It recurred regularly for three months, since which time it has been absent. During the last six months she has lost a great deal of flesh ; the breasts have decreased, while the swelling has increased. It had been supposed that she was the subject of pregnancy-outside-the-womb.

"At the time of examination her complexion was sallow. She suffered from severe pains in the back, and a sense of fulness at the bottom of the abdomen ; occasional vomiting and disturbed sleep. The womb was found to be much enlarged. Distinct ballottement could be felt. The pains were apparently those of approaching labour ; and as the child's heart could not be heard, it had been thought she might have a dead child in the womb. This, on its examination, was found not to be the case.

"Afterwards she had a diarrhœa, became very feverish, and vomited frequently, so that she constantly suffered from one or other ; the

tumour increasing in size, when the ballottement ceased to be felt. Under such circumstances, it was determined that an operation should be undertaken, when half a pailful of dropsical fluid escaped; and two large, roundish, cancerous colloid, ovarian tumours were discovered."

Case VI.—"M. A. T. was 42 years of age. Six months ago, shortly after a miscarriage, her abdomen began to swell, in the left side of which she had constant pain. Three months after she had to "lay up." Two days ago she was tapped of four quarts of clear fluid, mixed with thick gelatinous masses.

"She is a spare, ill-nourished woman, of sallow complexion, and suffers from hectic fever. The surface veins are enlarged. The abdomen is uniformly distended, fluctuating all over. When lying on either side, or on her back, it is everywhere dull on percussion, except at the pit of the stomach.

"She died shortly after, when, at the *post mortem* examination, there were found two cancerous colloid ovarian tumours; the one occupying the pelvis, the other—far the larger—situated in the abdominal cavity, where were the

viscid, yellowish-white, gelatinous contents of several of the cysts, which had burst. The latter tumour lay upon the posterior wall, pushing the mass of the small intestines upwards and forwards, of which the coils were glued together by soft, yellowish lymph. The greater part of the lower bowel, especially the transverse colon, had been forced upward upon the front surface of the right lobe of the liver, where it formed a loop, producing a corresponding indentation in that organ. The pelvic tumour resembled the larger in all respects except in size. No firm adhesions anywhere existed, nor were there nodules, nor similar disease elsewhere."

Case VII.—"A. B., aged 57, about four years ago was suddenly seized with very severe pain and cramp in the right side of the body, shooting across to the opposite side, which lasted one month; since which time she has steadily increased in size.

"At present, has great uneasiness from her large size, swelling of the legs and vomiting, especially in the morning, but no particular pain. Her general condition is tolerably good. The abdomen is irregularly distended, and is per-

fectly dull on percussion anteriorly, resonant in the right flank, obscurely so in the left. It afterwards proved that she was the subject of a cancerous ovarian growth."

In the two first of these cases (Nos. V. and VI.) the symptoms, direct, reflex, and constitutional, were very severe; so that in No. V. the disease ran its course in eighteen months; in No. VI. in nine months. The last (No. VII.) existed for more than four years. In cases Nos. V. and VI. both ovaries were affected, but cancerous nodule or disease existed nowhere else. In case No. V. there was much dropsical fluid. In No. VI. the position of the intestines under the diaphragm is peculiar.

Case No. VII. is one of much milder type, and serves to show the difficulty of laying down distinct rules for diagnosis, and of accurate differentiation.

CHAPTER IV.

2. *Of tumours of the Fallopian tube and broad ligament, connecting the ovary with the womb.*

Tumours of the Fallopian tube are rarer than those of most other organs in the neighbourhood ; not so those of the broad ligament.

Those of the Fallopian tube are situated to one side of the womb, and take their form from that of the tube, lying transversely across the body, and being long in comparison with their breadth. They are firm, hard, and, it may be, tender. They rarely attain great size, for the tube bursts when under much pressure. The presence of fluctuation depends upon the amount of tension. Tumours of these parts may be—

a. Distension of the Fallopian tube by blood, serous or purulent fluid.

Instances not unfrequently occur in which this tube (through which passes the human egg

on its passage, during the monthly courses, from the ovary, where it was formed, to the womb, where, if impregnated, it should be developed) is somewhat dilated by the accumulation therein of fluid, from partial closure of its opening into the womb. When this is more complete, the secretions collecting may cause a tumour of a certain size, which, if progressive, bursts before it has attained large dimensions. A case of abscess of the Fallopian tube under M. L'Aumonier, which had been mistaken for ovarian dropsy, was exhibited before the Obstetrical Society in 1865.

Fibrous tumours and hydatids may also exist here, but very rarely. In all such cases the diagnosis will for a time be exceedingly difficult.

β. Pregnancy in the Fallopian tube,

The commonest situation of the child when not in the womb, is the most frequent affection of this tube, causing a sensible tumour. Here are present the symptoms of early pregnancy—the cessation of the monthly discharge, morning sickness, increasing and tender breasts, but, in addition, some feeling of discomfort or pain in

the lower part of the body. The womb having been proved to be empty, attention is drawn to pregnancy-outside-the-womb. Time quickly solves the doubt; and the rupture of the cyst before or about the fifth month, generally followed by death, if it have not been previously treated, determines the nature of the case.

Yet so closely may the symptoms of different diseases approach, that in the case of E. E. (No. V.) cancerous disease of the ovaries was wrongly diagnosed as pregnancy-outside-the-womb; the reflex actions, as vomiting, &c., and absence of the courses, coinciding with, and leading to the supposition of, the latter rather than of the former disease. But if the child die before the bursting of its membranes, the fluid and less solid parts may be absorbed, and a tumour containing bones, hair, and dried skin be left, which, from its history and position, appears to be likely enough to be ovarian.

Case VIII.—"Mrs. L., aged 43, complained of a swelling at the lower part of her body. She was a strong, healthy-looking woman, and her courses had of late been regular till a year previously. She had a history of their having

stopt for three months on one occasion three or four years previously, and thought she was in the family way, but did not swell much ; and as they then re-appeared, thought she must have caught cold. She was subject to much-confined bowels, and occasionally had some shooting pains, and always a sensation of weight and fulness at the lower part of her body. On examination, there was felt, on the left side of the body, somewhat deep in the flank, the upper part of a firm body. On internal examination, the womb was healthy, but pushed over to the right side. To its left was felt a firm, unequally resisting body, to which, on pressure on the abdominal tumour, the impulse was directly conveyed.

"At this time, injections by the bowel having relieved such extra pressure as was caused by a considerable quantity of fœces packed in the lower bowel, which was pressed upon by the tumour, she had no such active symptoms as warranted further interference.

"Six months later she had to take to her bed for a few weeks, and there was some inflammation deep up in the part, but without much

general disturbance. On going to the closet shortly afterwards, she had much burning pain on defœcation, and felt as if she were being torn ; when she found she had passed a bone. This proved to be part of the right thigh bone of a fœtal child of about three months. Subsequently and at intervals she passed other bones.

"It was evident that she had had a pregnancy-outside-the-womb ; that the child had died at about the third month ; that the containing membranes had thereupon shrunk by the absorption or removal of the contained liquid ; that the pressure of some point of bone had gradually and slowly worked an opening through its enclosing walls and into the bowel, into which it escaped, and was presently passed.

"She had a complete recovery."

The more general subject of an encysted fœtal child, where the pregnancy is outside-the-womb and not in the Fallopian tube, will be discussed hereafter.

γ. *Cysts of the Broad Ligament.*

Small cysts, attached to and hanging from the broad ligament, but which it can be only with

great rarity that they exceed the size of a pigeon's egg, are frequently met with. Whether these cysts ever develop into large tumours is as yet undecided.

Within the broad ligament, however, cysts may exist, of which a case by Dr. Bright is an example, from which, from the rarity of this condition, I here quote :—"In a female patient, one year ago, when in the hospital, from the central position of the tumour, pregnancy was at first suspected." Dr. Bright found "the lower part of the abdomen tumid and hard, with scarcely any perceptible fluctuation." The cyst burst and death ensued. On examination, it was found that "a cyst had evidently originated in the broad ligament near the womb, and had insinuated itself even under the peritoneal covering of the womb."

Less certain is a case by Dr. Williams :—

"A patient, suffering from what was supposed to be ovarian disease, which, when first observed, was situated low down in the cavity of the abdomen, was operated upon, but without success.

"After death, the tumour was found to be

adherent to the diaphragm, &c., but attached no where.

"In a report sent in to the Obstetrical Society by Drs. Grailey Hewett, and Williams, in which Professor Wilson Fox coincided, it was held that the tumour 'had originated in the broad ligament, and consisted in an expansion and dilatation of one of the little pedunculated cysts frequently found in a state of health.' It was suggested by Dr. Routh that it was an escaped and enlarged graafian vesicle."

Should the suggestion in the latter case be the fact, it might be that the former also had its origin in a graafian vesicle retained within the Fallopian tube, as we have seen might be the case.

ð. *Abscess in the Broad Ligament will be treated of hereafter under "Abscess of the Connecting Tissue."*

CHAPTER V.

3. *Of Tumours of the Womb.*

(A) WITHIN ITS CAVITY.

When within the cavity of the womb, in position the tumour is central; in outline pear-shaped, with the base upwards; its surface smooth and even; in consistence firm and elastic, or hard, with or without an indistinct sense of fluctuation. The following, however, was an ovarian tumour :—

Case IX.—"E. P., aged 35, has below the pit of the stomach, extending about one inch above the navel and about three inches on either side of the middle line, a pear-shaped swelling, with the base upward. It is dull on percussion; no fluctuation can be detected; the flanks are resonant."

Such cases can only be diagnosed correctly by an internal examination, which here deter-

mined the tumour to be unconnected with the womb, which was empty. In ovarian dropsy the tumour is also not rarely said to have commenced in the centre. Such was the history in four out of fifty-three cases treated.

To this class belong—

α. Pregnancy;
β. Hydatid-like degeneration of the membranes;
γ. Distension by fluid or gas;
δ. Fibrous tumour or polypus.

α. *Of Pregnancy.*

The distinctive conditions of pregnancy from ovarian tumour are the following—

The history of the case may point in the direction of pregnancy, yet the possibility thereof is so frequently denied, that, practically, no reliance can be put upon such assertion.

"A short time ago a case (No. X.) occurred within my knowledge, in which a tumour in a single woman, having all the appearance of an ovarian dropsy, was about to be tapped: indeed, the trocar had been sent for. The patient was once again questioned, but, as before, stoutly denied the possibility. On the arrival of the instruments, they were shown to her; and it was told her that, if she had ovarian dropsy, the

operation would cure her; but, if she were pregnant, it would kill her. She then acknowledged the possibility of being in the family way. A few days after she was safely confined."

There seems to have been no excuse for such error in diagnosis, for the child's heart must certainly have been beating, and, if listened for by a competent ear, could have been heard; for the child was born alive.

The only plan, certainly, is, in all doubtful cases, to assume the existence of pregnancy, till it has been disproved. The duration of the tumour may decide the question. It may have existed over a period greater than that of pregnancy. The pregnant womb rises after the fourth month above the bone of the pubes into the abdomen, and gradually increases in size, in exact proportion to its duration. Thus, if two examinations be made, between which is an interval, knowledge is gained, which a coincidence of similar increase in pregnancy and ovarian tumour can but very rarely affect. The only exception to this is where the child has died in the womb, and is retained till the normal term, more or less.

Case No. XI.—"I was sent for in a great hurry to see Mrs. C. She had some time previously thought she was pregnant; but latterly her breasts had fallen in, her appetite had fallen off, and the swelling of her abdomen had ceased to increase. Of late she had feared she had a tumour. She was now in intense epileptic convulsions, with cold extremities, a feeble pulse, blue face, scanty respiration, and almost dead. She was very fat. Under treatment, I got her round from the convulsions; and afterwards came to the conclusion that she had been pregnant, but that the child had died in the womb. Labour was artificially induced, and a stinking mass of child and its accompaniments of about seven months came away. Mrs. C. had no more fits, and soon was well and strong."

The absence of the courses leads at once to suspicion; yet this symptom is not always existent in pregnancy; and, in ovarian tumour, the condition is so very irregular as to make it of no positive value.

The sympathetic actions—such as nausea, vomiting, and enlarged breasts—are also common to both conditions.

"In a case (No. XII.) that I saw, milk existed in the breasts concurrently with the appearance of the ovarian tumour."

"In a similar case (No. XIII.) the patient had nausea, vomiting, and increase of the breasts."

Many such instances could be adduced. From these coincidences the patient frequently imagines herself pregnant, and for a time takes no further notice of her condition.

Abdominal movements, felt by the woman, are also a fertile source of error. Such sensations may be caused by the movement of internal gases, by the contractions of the womb, or of muscles. Hamilton aptly says:—"No woman ever yet fancied herself pregnant, without also persuading herself that she felt the motions of the child."

The position of the pregnant womb is central, as is that of all tumours whose situation is within the womb; its consistence firm and elastic. Upon firm pressure, or when the hand is cold, the womb may be felt to contract, and thus becomes more defined and firm. This is, as Dr. Greenhalgh has remarked, "A most important diagnostic symptom;" yet it may be

simulated by spasmodic contractions of the rectal muscles of the abdomen. Movements of the child, certainly felt by the physician, are diagnostic; yet the movement of gases, the contractions of the rectal muscles and of the womb, may resemble this very closely. The child's limbs may sometimes be felt; and though on two occasions I was able rightly to diagnose very difficult cases thereby, yet I have also known how the idea of such forms has conduced to error. They are more certainly felt in encysted pregnancy-outside-the-womb, where the cyst wall is thin, than through the denser, firmer, and contracted walls of the impregnated womb.

The existence of ballottement is of more certain value, yet it may be present where a tumour exists with dropsical fluid.

"In such a case (No. XIV.) of ovarian tumour with dropsy, ballottement was felt till the dropsy greatly increased in quantity."

As, however, such a tumour rarely is freely movable, being retained in its position most frequently by its attachments, size, or adhesions, (the inflammation producing which has probably

also been the cause of the dropsy), this sign is seldom at fault.

In pregnancy, fluctuation is most frequently absent; only in case of excessive quantity of the waters, which is unusual, is an indistinct fluctuation perceptible. In such a case one would think there was little excuse for error; yet the following example would seem to point to difficulty of diagnosis in such a condition:—

Case No. XV.—"Mrs. W., whom I subsequently attended, being, as she thought, pregnant, became of great size; so that she was frightened, and very uncomfortable, for her legs greatly swelled. She called a doctor, who, under the impression that she had an ovarian tumour, tapped her, and drew off a considerable quantity of fluid. But labour presently came on, and she was in a few hours safely confined of twins at the 8th month, both of which died. The mother, however, recovered, and had twins subsequently, as she had had also previously. There was no trace of ovarian tumour. She had had only an excessive quantity of the waters, which occurred to her also in her after confinements."

Here, again, the children's hearts could certainly have been heard. Absence of fluctuation in pregnancy is, therefore, an important diagnostic point; yet so closely may this sign be simulated by fat abdominal walls, by which on impulse a wave is carried, that on no point perhaps will physicians differ more than on the existence of fluctuation. This may be well obviated by the interposition between the hands of the edge of such a flat board as is frequently used for the diet-card at hospitals; and which, pressed on the flabby walls with moderate force, intercepts the superficial tremor; while it in no way interferes with the deeper wave of the fluid.

The auscultatory signs are alone certainly distinctive of pregnancy: all other points may be simulated so as still to leave the condition uncertain; but if once the beating of the child's heart be heard, it is certain that a child is present and alive. Dépaul and Jacquemier only failed to hear the fœtal heart in 8 out of 906 cases. In six of these the child was dead. This sign exists from the sixth month or earlier. Yet, though its presence certainly determines the existence of pregnancy, its absence does not

prove the contrary; for it is not found where the child is dead. If the child's heart beat, there is no excuse that it be not heard, unless it be the lame one that the doctor is deaf or his ear uneducated.

Lastly, the duration ultimately determines the case. If there be a child in the womb, it is expelled by labour within ten months; exceptions to which are of the rarest. If it be necessary to determine the nature of the condition before this period, and the child be dead —that is, the child's heart do not beat, which much increases the resemblance to ovarian dropsy—the only certain mode of discrimination is by an internal examination, when the empty or full state of the womb is without doubt ascertained.

Some idea of the occasional difficulty of diagnosis in ovarian disease is given by the following case, which, some years ago, was under my care when Resident Physician Accoucheur at St. Bartholomew's Hospital:—

Case No. XVI.—"M. A. M., aged 25, a well-nourished woman, of a dark bilious complexion, is married; has had no children. Her present

illness commenced 8 months ago by the courses recurring every 2 weeks. About 2 months afterwards she had spasmodic pains in the right side of the abdomen, which were aggravated by exertion. She passed her water frequently. One month later still she noticed the abdomen gradually increasing in size; during which time the pains were worse, but ceased after 6 months more.

"There is a very firm tumour extending from the pubes above the navel nearly in the central line of the abdomen.

"Dr. Greenhalgh gave his opinion that the tumour was ovarian. Within 6 weeks Mr. Spencer Wells examined her, and concluded that she had a pregnancy-outside-the-womb. Dr. Priestley diagnosed a common pregnancy: M. Nélaton a very firm ovarian tumour, or a fibroid tumour of the womb but now unconnected with the womb; in which opinion Drs. Routh and Savage concurred.

"Some months afterwards she was operated upon; and a many-chambered ovarian tumour was found, with a considerable amount of fibrous tissue."

It sometimes happens that an ovarian tumour is first noticed after a confinement, when it is supposed to be the enlarged womb. Such was the case in 11 cases out of 50, that is 22 per cent. attended; and raises the question of the influence of pregnancy as a cause of ovarian dropsy, which, however, does not belong to this subject. In some of these cases the tumour had probably existed during the pregnancy, but was unsuspected. From the number of cases in which this occurs, it is evident that under such circumstances a careful examination should be made, where the suspicion of a tumour exists.

On the other hand, pregnancy may supervene on ovarian tumour; and it is necessary that the possibility of this should be borne in mind, or serious consequences may result.

Such was the case (No. XVII.) in C. T. "The tumour, of the size of a fist, was first noticed in the left flank. It increased in size very rapidly for 6 months, when it reached up to the centre of the ribs; the woman thinking herself pregnant, though the courses continued regular. About this time the monthly courses

ceased, for she became pregnant. She now complained of great pain down the thighs and across the abdomen, and became so ill that she was obliged to take to her bed for about 6 weeks, during which she suffered much from nausea, and rapidly lost flesh. When she had partially recovered from this attack, it was thought necessary that artificial labour should be induced, which was safely effected to her great relief."

Not so happily ended the case (No. XVIII.) of Mrs. N. "She was the subject of an ovarian tumour of considerable size, which, however, being tolerably stationary in growth, was not causing anxiety. On two occasions she fell in the family way, and, probably from the impediment of the tumour hindering the progressive enlargement of the womb, miscarriage in each case occurred. On both occasions she began to flood violently, which was, however, easily controlled and stopped by careful plugging. Thus these miscarriages arrived at a safe conclusion. However, when I was absent from home, a repetition of the same thing occurred, and she bled profusely. The doctor called,

considering her to be at the full time of pregnancy, kept waiting for labour pains, till the woman died." Had he seen her when certainly not pregnant, this might not have happened; or had he well plugged her at the time, she would have lived.

Cases of the removal of an ovarian tumour during pregnancy are reported in the *Medico-Chirurgical Review* and elsewhere.

Dr. Greenhalgh, in the St. Bartholomew's Hospital Reports for 1865, has related a case, in which, supposed to be a many-chambered ovarian tumour, he successfully diagnosed the concurrence of pregnancy with ovarian dropsy, by the sounds of the child's heart.

Pregnancy with distended bladder closely simulates the physical signs of ovarian tumour. The bladder is flattened by the presence of the womb against the walls of the abdomen. Thus fluctuation is present, yet only over a comparatively limited space. Attention to the general rule of the introduction of a catheter where such a condition may exist, reduces the case to one of simple pregnancy.

When dropsy is concurrent with pregnancy,

fluctuation may be detected; but the flanks are now dull on percussion, and the condition may by its own special signs now without difficulty be discovered. Under such circumstances the tumour has been overlooked or wrongly diagnosed: for Kiwisch mentions a case, where the trocar penetrated a pregnant womb. Where there is a doubt, one can only safely assume the existence of pregnancy, until the negative is proved.

Case No. XIX.—"A Mrs. C., lately arrived from Ireland, and very poor, short-winded, fat, flabby, and puffy looking, wished to be attended in her confinement. Not liking her appearance, I listened to her heart. Finding evidence of disease of its valves, and her legs being dropsical, I examined her body. There was a large tumour in front, in which the beating of the child's heart could be distinctly heard. She was, therefore, pregnant. Her flanks, were, however, dull on percussion, as she lay on her back; but when she had lain on one side for a few minutes, the upper side was found to be resonant; which, on her again lying flat, became dull. It was thus certain she had dropsy.

"After much difficulty of breathing, and other discomfort from the double pressure, she was in due course delivered of her child. She subsequently suffered from the dropsy."

β. Hydatid-like Degeneration of the Membranes

Differs from ovarian tumour in position, form, consistence, and fluctuation, in which it corresponds most nearly with pregnancy—in consistence being, if anything, harder and firmer. Excessive quantity of the monthly courses may exist, or they may be otherwise irregular. It is more likely to be confounded with solid tumours of the womb, or pregnancy, than with ovarian dropsy.

Case XX.—"A lady called upon me, seeking my attendance during her confinement, and stating that she had made a mistake in her calculation, as the child should have been born in the previous month; and that she had an occasional small loss of blood. After going carefully into the history, especially with reference to the last normal appearance of the courses, it appeared that the nine months were really completed previously.

"On examination of the abdomen, a firm, non-fluctuating, contracting, pear-shaped tumour was found in the middle line, extending up to the navel. The breasts, too, had somewhat subsided. A child's heart could not be heard.

"It was, therefore, evident that one of three conditions existed: either that there was an ovarian tumour, some form of false conception in the womb, or that, after ordinary pregnancy, the child had died at about the 6th month. The facts of the occasional bleeding and of the full term being past were evidence against the womb containing a dead child; as well as her statement that she steadily increased in size, which would not have been the case were the child dead. The position of the tumour, its equal form, the muscular contraction of its fibres, the absence of fluctuation, the evident continuation of the abdominal tumour with the mouth and neck of the womb, as felt by the vagina, as well as the absence of constitutional enfeeblement, tended to argue against ovarian dropsy.

"The diagnosis was that some form of false conception occupied the interior of the womb;

and she was so treated. Labour pains were artificially induced; and after some bleeding, for which she was effectually plugged, a mass of grape-like hydatids came away. Having been well bandaged, she made a good recovery, and has since had a living child."

γ. Distension of the Womb by Fluid or Gas

Are unusual conditions, corresponding in physical signs rather with pregnancy—with which they are likely to be confounded—than with ovarian dropsy.

In hydrometra, or fluid in the womb, fluctuation may be present; but the history of the case, with cessation of the courses, the position, form, and regularity of the tumour, serve as distinguishing marks from ovarian dropsy. Mr. Travers Smith has, in the *Lancet* for 1849, related a case in which this condition was mistaken for ovarian tumour.

A condition, closely allied to that of water-in-the-womb as produced by secretion from the lining membrane of the womb and therein retained by closure of its mouth, is that in which, the hymen being completely closed,

the monthly courses, not finding an outlet, are retained; and, gradually filling the vagina, next distend the womb.

Case XXI.—"A lady called on me, bringing her unmarried daughter, a fine, strong, healthy-looking girl. The mother stated that her daughter had never been poorly, but, of late, had been swelling in the body; that she had pains in the back, and some indisposition at intervals; and lately had been vomiting, and without appetite. It was feared a tumour had formed.

"On examining the abdomen a large tumour, nearly up to the navel, was found in the middle line, resembling the state of the impregnated womb between the fifth and sixth months; but a child's heart could not be heard. On farther examination the vagina was found closed.

"After division of the closed hymen, a large quantity of dark fluid came away, the womb gradually decreased in size, and the girl quite recovered."

In physometra, gas in the womb, the tumour is resonant on percussion, and less firm; but in position and form resembles the pregnant womb.

Case No. XXII.—"I was called in consultation

to see a lady, who, having had a miscarriage at the third month, and apparently recovered from its immediate effects, began to feel a sensation of great fulness at the lower part of the body, with much malaise and loss of appetite, succeeded by such debility that she kept her bed. Her doctor found a considerable tumour, and it was thought desirable to have a consultation as to its nature.

"I found a muddy-complexioned woman, looking somewhat sunken about the features, with rather a fast feeble pulse, and foul tongue. A pear-shaped tumour occupied the middle line of the abdomen, having a sense of fluctuation, and being somewhat resonant on percussion, but much less so than the parts over the neighbouring intestines. By the vagina this abdominal swelling was found to be continuous with the neck of the womb, the mouth of which was somewhat dilated, and one felt therein a softish mass, which appeared to break down easily on pressure; it communicated a very offensive odour, and the patient then said, that a thin watery, and most unpleasantly smelling discharge, was constantly oozing away.

"With a little management I extracted from within the mouth of the womb a decomposed mass, having a most horrible smell; and immediately there followed, with some little fœtid fluid, an escape of foulest gas; the results of the decomposition of a retained afterbirth, which, having got across, and blocked up the mouth of the womb, alike prevented the escape of gas and of itself.

"The womb was carefully syringed out a few times with a tepid solution of Condy's Fluid, the abdomen well bandaged, and the lady made a complete recovery."

Dr. Grailey Hewett has rightly remarked that gas in the womb presents signs in common with an ovarian cyst, which, having burst into the intestine, has become distended with gas. Such a case is the following, which shows the transitional physical signs.

Case No. XXIII.—"A. F., aged 38, had been tapped several times, and was known to be suffering from ovarian dropsy. On examination, the swelling occupied a central situation. It was dull on percussion; there was resonance below the right ribs. Fluctuation was com-

municated to the hand continuously over almost every part.

"A week later, the abdomen was resonant over a space about three inches square above the navel. Two days afterwards, there was tympanitic resonance over the whole of the front of the abdomen, with dulness at the sides. After two days more the abdomen was increased in size, and in front was still more tympanitic, with considerable bulging at the sides, which were dull.

"Some days after, she was tapped, and much highly offensive gas, as if from the decomposition of animal matter, escaped. The patient soon after died, when a large, thin-walled ovarian cyst was found, containing a great quantity of very fœtid gas, with two or three pints of thick white mattery fluid, without trace of fœcal matter. Between four and five inches above the ileo-cœcal valve of the intestines was found, in the closely-adherent cyst and intestines, an opening of the size of a crow-quill, through which into the cyst passed water injected by the bowel."

This case could not have been mistaken for

distension of the womb by gas, since the nature of, and changes taking place in, the tumour were too evident; but under other circumstances, or had the patient then for the first time come under notice, such physical signs being common to the two diseases, error might occur.

δ. *Fibrous Tumour or Polypus within the Womb*

Is a common disease, having many points of difference from ovarian dropsy. The history of its slow growth, of the frequent recurrence of bleeding, and of great increase in quantity of the monthly courses, of frequent or constant pain or discomfort; the position, the hardness, and absence of fluctuation, all tend in the direction of solid tumour of the womb, rather than of ovarian dropsy.

Even here, however, grave error has been made, for in the *Medical Gazette* the following case is reported by Mr. W. Heath, Lecturer in the Manchester School of Medicine and Surgery.

A woman, aged 46 years, had observed her bulk to be increased one year previously. He

says:—"After repeated examinations, and most careful manipulations by myself and colleagues, made at different times, and in every variety of manner, the conclusion arrived at was the presence of an ovarian tumour; and it was our unanimous opinion, that the condition of the patient, and the mobility of the tumour, made it a fair case for extirpation by opening the abdomen." When the tumour came into view, it "was recognized as the womb, distended by solid matter. It was removed and the patient died. The growth consisted of the fibrous or hard tumour of the womb."

Yet the diagnosis of such cases is not usually difficult, as in the following:

Case XXIV.—"A woman consulted me on account of a tumour, which she stated had been said to be ovarian, and which it was recommended should be tapped. There was, extending to half way between the pubic bone and the navel, an irregularly shaped, hard, firm, non-fluctuating tumour tending a little to the left side.

"On examination by the vagina there was found, occupying its upper portion, a large

dense mass, which extruded through, and occupied a position below the mouth of the womb, which was very high up. This was afterwards removed, and found to be a somewhat egg-shaped, dense, fibrous, polypoid tumour, and its smallest diameter was that of a large orange.

"From this operation she made a good recovery. The upper tumour with the womb now greatly descended, and gave no trouble; the discomforts of the woman being removed, and her mind relieved by the assurance that the nature of the tumour was simple, and would not shorten her days, no farther operation was attempted; and by other means she steadily improved."

(B) TUMOURS SITUATED WITHIN THE WALLS OF THE WOMB.

A TUMOUR thus placed, if situated at the side, grows away from the central line; if in the base, it has a more or less central direction of growth; and, in form, may be smooth or bossed, as, for instance, when fibroid tumours are situated within the walls of an enlarged womb. It may

be hard, resistant and not fluctuating, as in hard cancer and fibrous tumour within the walls of the womb; or softer and fluctuating, as in abscess; or a combination of the two, as in fibro-cystic disease.

ε. *On Misplacements of the Womb.*

If the womb be misplaced, it may be (1) that it is empty and its walls enlarged; or (2) that it is full or pregnant, and its walls thus enlarged.

(1) In the first case of the empty womb, its body, having been doubled on itself and much enlarged and congested, may be felt either before or behind the mouth and neck of the womb. It is then more or less movable, according to the length of time it has remained in that position, and the size from congestion that it has attained.

Case XXV.—"Not long since I was asked to see Mrs. C., aged 30, in whom it was proposed to tap an ovarian tumour. She had had six children, the youngest two years before; but had since that time felt much fulness, weight, and pain at the lower part of the body.

"On examination, there was felt to be a some-

what tender, slightly movable tumour, of the size of an orange, directly behind the mouth of the womb, which pointed downwards. Since it receded somewhat on pressure, its density was not easily distinguished, but it appeared firm, yet yielding, as though it might contain fluid. On introducing the sound into the womb, I found it to be the much enlarged body of the womb itself, which was thus replaced in its proper position, where it remained with the assistance of a pessary. The operation proposed was therefore not performed."

The introduction of the sound into the womb in such a case, by a skilful hand, at once decides the question of mal-position of the unimpregnated womb.

(2) But if the womb be impregnated, and fall similarly out of position, the distinction becomes more difficult. After all the usual accompaniments of early pregnancy, as vomiting, cessation of the courses, swelling of the breasts—which, however, may also occur in her who suffers from ovarian disease—a tumour is felt behind the mouth of the womb, in the early time similar to that in the former case (1). On growing, how-

ever, it may become quite fixed and wedged in. It is then firm, fluctuating, tense, pressing on the bowel, and causing constipation, perhaps also affecting the passing of the water, with a constantly increasing sense of discomfort, in proportion to the degree of growth. Later the mouth of the womb is generally drawn up, but this might also happen from a tumour. The sound does not easily enter the canal of the womb.

In this case, if such a pregnant womb be so left, premature labour comes on; but the woman dies from inability to rid herself of the child. Under these circumstances such a tumour may be tapped through the walls of the womb; when, relieved of the fluid, the body of the womb may be pushed up and there kept in position while the child is born.

Such a result shows the nature of the tumour; while if it were ovarian, the same form of treatment would have been necessary.

ζ. On Hypertrophy, or general enlargement of the walls of the womb.

The womb may be so affected that it becomes

enlarged equally through the substance and extent of its walls. This may be from pure Hypertrophy; or it may have remained in its enlarged condition after the expulsion of the child, as in the following:

Case (No. XXVI.)—"On a dark and stormy night, a messenger galloped in 9 miles for me to go at once to a woman, who had been confined a few days previously, and who had just discovered that she had a tumour of the abdomen, which, she supposed, had existed with her pregnancy.

"Fearing she might have a distended bladder with retention of urine, I at once went out, and found the enlarged womb occupying its usual position after labour, and forming a considerable tumour of the size of a child's head above the pubic bone. All then was healthy and right.

"It was with some difficulty that I made her believe that the lump was only the womb, the walls of which, having just previously been so enormously enlarged by the presence of the child, could not suddenly become as small as before the womb was impregnated; but that

this would occur in a few weeks. She perfectly recovered of course."

Again, such tumour may be from an equable fibroid degeneration, with increased growth of tissue. The tumour thus formed rarely reaches beyond an inch or two above the pubes, and bears the symptoms of fibrous tumour within-the-walls of the womb; but the physical signs of the pregnant womb, with which it is more likely to be confounded than with ovarian tumour.

η. *Fibrous Tumour within the Walls of the Womb*

Resembles fibrous polypoid tumour within the womb, described under that head; except that in form, position, and direction of growth, it partakes of the character of a tumour within-the-walls, detailed above, and there is usually less bleeding. The slowness of growth, hardness, and absence of fluctuation, serve generally to distinguish it from ovarian dropsy; while, in the event of a lateral situation, it approximates more closely than does a similar fibrous tumour inside the womb. On the introduction of the sound, the womb is found to be enlarged, and the

tumour follows the course of any movement of the womb so communicated to it; at least at its base, if not more extensively.

θ. *For Fibro-Cystic Tumour of the walls of the womb,* *see page* 72.

ι. *Abscess in the walls of the womb*

Is a rare disease, which, when occurring, probably follows miscarriage, labour, or operation on that organ. Should such abscess rise out of the pelvis, fluctuation will be perceived. The differential points are the strong inflammatory fever with increase of body heat, as shown by the Medical Thermometer, and tenderness of the part; yet so seldom does it occur, that it might well be mistaken for an inflamed ovarian tumour.

κ. *Cancer of the walls of the womb,*

Though common when affecting the neck, is rarely found situated in the body or base, when only does it form an abdominal tumour. It has run its course before it has attained a size larger than that of the adult head, according to

Dr. West. The constitution becomes affected at or shortly after the commencement of the disease; and the patient suffers sharp, darting, or burning pains in the loins and back. It may be too, that much blood is lost, together with a very offensive discharge by the vagina.

Case XXVII. "In London I assisted Dr. Greenhalgh in an operation on a woman, who for some months had had epithelial cancer of the neck of the womb. Subsequently a tumour gradually rose from the pelvis into the abdomen: it occupied the middle line, was pear shaped, had all the signs and rate of increase of pregnancy, and the child's heart was heard beating.

"The child was removed by Cæsarean section through the walls of the abdomen at the 8th month, before labour set in, without pain; Dr. Richardson giving the ether spray. The woman recovered from the operation without a bad symptom. The child also lived."

In hard cancer or scirrhus, the tumour is very solid and stony to the feel. In glue-like or colloid cancer, the tumour is more elastic, with, it may be, a partial fluctuation. Moreover, hard nodules may be felt situated in the neigh-

bourhood, and the disease may exist in other organs. Such cancer of the base of the womb is very rare, 3 or 4 cases only are on record; two or three by French authors; and one by Dr. Barnes, where the womb and its appendages were thus affected.

(C) TUMOURS SITUATED OUTSIDE-THE-WALLS OF THE WOMB, BUT CONNECTED WITH IT.

Tumours of the womb situated externally have a broad base, or a narrow pedicle or stalk. Their growth is from the direction of the middle line, though they may occupy a position at the side. In form they are smooth, but may be very irregularly bossed. In consistence, what has been said of those situated in the walls applies equally to external tumours of the womb.

λ. *Fibrous Tumour of the Outside of the Womb,*

Though partaking of the physical characters of other fibrous tumours, may approximate very closely to ovarian dropsy, especially the more solid, for which it has been mistaken. Mr. Lizars relates a case of Dr. Myrtle's, where the abdomen was opened for the removal of a sup-

posed ovarian tumour; but a fibrous tumour of the womb, with dropsy, was found. Such a case occurred to Mr. Baker Brown, where the tumour was of such size as to fill the cavity of the abdomen; which latter condition I have seen in a remarkable case.

Case XXVIII.—"Mrs. M., aged 45, came under my notice. She had, for about eight years, felt much weight at the lower part of the body, and had, in the first years of its occurrence occasionally lost large quantities of blood. A swelling had gradually formed in her body, which steadily increased.

"On examination there were found two large, hard, dense tumours blocking the abdominal cavity up to the navel, some parts projecting above that level. They were bossed, smooth, and somewhat movable. Internally, the mouth of the womb was found to be very high up, and the womb itself elongated, its cavity enlarged, and its sides irregular.

"The tumours were certainly attached to the womb, and were of a fibrous nature. She remained under treatment for some length of time; when, their position having been mechani-

cally altered to her advantage and comfort, since there was no increase of growth on account of her age, and her general health was perfect, her attendance ceased.

"A peculiarity of this woman was, that she had two distinct vaginæ and two wombs; one of which was, however, much enlarged and more patent than the other, which was pushed over by the presence of the fibrous tumours. Into the cavity of this womb the sound passed the natural distance."

Now if in this case the unused vagina and womb had by chance been examined to the exclusion of the other, it might, with some reason, have been thought, that such tumours were ovarian with much solid tissue.

Thus the fibrous tumour outside-the-womb in size and in mobility, may be equal to the ovarian; in position central or lateral; in consistency almost equally firm; fluctuation may be apparently present, or imperceptible in both, and both may increase slowly—a case in point is one by M. Démarquay in the *Gazette Médicale de Paris*, where an ovarian dropsy existed 15 years before the first tapping. In both, the

monthly conditions may be similar; for in this case excessive menstruation probably only exists, when the fibrous disease also affects the inner coats of the womb.

In the *Gazette Médicale de Strasbourg* for 1863 is a well-considered case by M. Kœberlé, in which, afterwards, on operation, the tumour proved to be fibrous, and attached to the left angle of the womb. He says :—" The diagnosis remains uncertain. The tumour is of the ovary, or of the womb. The characters, which seem to refer it to a firm or partially many-chambered ovarian tumour, are its rounded form, that it is not bossed, its flabby consistence at some points, its obscure fluctuation—towards the left, the shocks transmitted to the mass produced there a vibratory movement analogous to that of a gelatinous mass, and which simulates a vague fluctuation—the deviation of the neck of the womb; the apparent independence of that organ when one raises the tumour; the slightly-pronounced irregularities of the courses—the menstruation had become more and more prolonged and painful, accompanied on each occasion by vomiting and diarrhœa: at the time of taking

the case, it was normal and regular—the age of the patient, at the commencement of the affection (five years before, when $24\frac{1}{2}$ years old); the presence of a longitudinal vascular band movable with the tumour, which one may consider formed by the pedicle. (Trompe.)

"The characters peculiar to a tumour of the womb consisted, on the contrary, in the firmness of the tumour on the right, in its suppleness and softness on the left; in its gradual development; in the rounded form of the tumour: its doubtful fluctuation, and the deviation of the neck of the womb, are characters perfectly capable of belonging to a fibrous tumour of the womb." "The fibrous tumour removed was implanted on the base of the womb, at the left angle."

The Case of M. A M. (No. XVI.) was diagnosed by M. Nélaton as a firm ovarian, or fibrous tumour of, without evident connection with the womb. It proved to be a many chambered ovarian tumour.

μ. Fibro-Cystic Tumour of the outside of the womb

Is very rare, and appears to be indistinguishable from ovarian dropsy. The following short

summary of a case under Dr. Routh, which I saw, will best describe the disease.

Case No. XXIX.—"Mrs. A. G., aged 26 years, of spare habit and dark complexion, has been once pregnant. The abdomen began to enlarge 17 months ago, the increase becoming more rapid 5 or 6 months since, and the shape more irregular; by which walking became difficult and painful. The courses have always been regular.

"The abdomen is very much enlarged and very irregular in appearance. Both loins project in front, particularly the left, while the region of the navel is depressed. The tumour extends on both sides quite up to the ribs, and fills the abdomen from the flanks to the ribs. The loins behind on both sides are clear on percussion. Everywhere else there is dulness. Fluctuation can be felt distinctly in both loins in front on deep pressure, partly also on superficial pressure only; but the fluctuation of one side is not conveyed to the other side. These two fluctuating sacs appear to unite near the navel, but extending more towards the right side by a bridge of hard resisting matter,

in which no fluctuation can be traced: the whole mass is freely movable on both sides. There is but little mobility of the womb, but no movement is conveyed from the tumour to it.

"The diagnosis arrived at by Drs. Routh, Savage, Rogers, and Sir William Ferguson was a many-celled ovarian tumour. The patient, after an attempt at removal, died.

"On examination of the body, several cysts united together were found to be arranged round the base, sides, and first wall of the womb, which lay imbedded among them. The ovaries were so lost in the mass as not to be made out. The womb exhibited fibroma of its left side. The cavity of the womb did not communicate with the cysts; but, on an incision being carried through the middle of the body of the womb and the cysts at the base, it was clear that the nearest ones there attached were united with the substance of the wall of the womb, and that they had sprung from the same source in the walls of the womb."

Similar cases have been recorded by Mr. Nunn, by Mr. Prescott Hewett in the *London*

Medical Journal, and that of Mr. Fletcher's, by Dr. Grailey Hewett.

Hence is seen the absence of certain diagnostic signs and symptoms; yet by a careful microscopic examination of the fluid taken by a hair trocar, the fibrillæ there present might determine the nature of the disease, the operation be avoided, and the patient's life be not thereby shortened.

CHAPTER VI.

4.—*Of the Bladder.*

a. Distension of the Bladder by retained Urine.

DISTENDED bladder has frequently been mistaken for a simple ovarian tumour; yet, of all tumours of the abdomen, this occurs the oftenest, and is the easiest to distinguish.

The history, when attention has been properly directed to it, is clear; and the nature of the case at once made certain by the introduction of a catheter, and by drawing off the urine. Yet the physical signs in the two conditions are very similar.

Extending perhaps up to or beyond the navel in the middle line is felt an oval, firm, elastic, clearly or indistinctly fluctuating tumour; dull on percussion, while the flanks are resonant.

The history, however, elucidates the case: for on inquiry as to the duration of the tumour, it

is found to have existed a few days or weeks, during which time the urine has been dribbling away; on which latter account the patient's doctor has, perhaps, congratulated her. A catheter is then passed, and a large quantity of urine removed; when it may be that some pelvic tumour pressing on the urethra is discovered. Such is the history of numbers of cases.

Case XXX.—"I was sent for some 20 miles to see a woman, who was reported to have suffered much for some days from a tumour of the abdomen. On arrival I found that the bladder was distended with urine, forming a tumour which extended almost up to the navel,; it was very elastic, firm and hard, without conveying sense of fluctuation, from the contracted state of the abdominal muscles and the extreme tension and fulness of the bladder itself. An abscess of the wall between the vagina and the urethra, pressing upon the urinal tube, obstructed the passage of the water; which, therefore collecting, stretched the bladder and formed a tumour. The abscess having been opened, the urine was easily drawn off by a catheter; and the woman had no farther trouble."

Case XXXI.—"Again, a telegram came from a considerable distance desiring my immediate attendance on a woman with a tumour. On my arrival I found a large tumour of the abdomen, extending up to the navel; of irregular form, fluctuating in front, yet feeling firm on deep pressure. On percussion it was dull, but the sides were resonant. She said she was frequently passing her water, but in small quantities.

"On internal examination I found a firm, fibrous mass, pressing on the urethral passage near the neck of the bladder. On the introduction of an instrument, three pints of strong smelling urine came away to her great relief. There was now felt a deep-seated fibrous tumour of the womb; which was of little practical importance, since the woman was 55 years of age, when it would not increase in size. Since by its mechanical pressure it might again obstruct the flow of urine, she was taught how to introduce the catheter; and was not afterwards inconvenienced."

Case XXXII.—"A Mrs. O. sent for me in her confinement. The mouth of the womb

could not be felt. She had persistent and strong pains for two days; when, finding she was unable longer to walk about, and that her appetite was falling off, I introduced my hand into the vagina, and found that an outgrowth of bone very high up prevented the descent of the child's head. The condition having been explained to the husband and to herself, she was put under the influence of chloroform and the child removed.

"She apparently did well for three days. Being however an ill-natured and cantankerous patient, not content that her life had been saved, she would not tell me that she could not pass her water. On the third day, however, this was found out by the presence of a tumour extending above the navel in the middle line, fluctuating and movable; behind which was a mass of firmer and more solid tissue. On thorough enquiry the woman confessed she had not passed her water; when it was easily drawn off to the amount of nearly three quarts, and the normally enlarged womb found to be the tumour behind. She recovered perfectly."

Such a condition certainly simulated an ova-

rian tumour, which, it might have been assumed, obstructed the descent of the child.

Dr. Grailey Hewett has reported an instance in which the history is unusually dubious.

"A woman had a hard, firm, non-fluctuating tumour extending to three inches above the navel, of three weeks' duration, which at first sight gave the impression of an ovarian tumour of rapid growth. She stated that she passed water freely and had done so for three weeks. As a preliminary, a catheter was passed and drew off six pints of urine; when a fibrous tumour was found, the cause of the retention."

In these cases the statements of patients are not to be relied on; and only when pointed questions are asked and pressed, can correct answers be obtained. One of the points much relied on for the line of preliminary questions is the duration of the tumour, which rarely exceeds a few weeks. Ovarian dropsy may however be of very rapid growth, and in history closely simulate retention of urine; as in the following

Case No. XXXIII.—"C. L., aged 25, has never had any serious illness till now. Rather

more than two months ago her abdomen began to enlarge without any assignable cause. The swelling commenced in the middle of the lower part of the abdomen, and has gradually increased up to the present time. She passes not more than half-a-pint of urine in the twenty-four hours, which is loaded with lithates, and is free from albumen.

"On examination the abdomen was uniformly distended; dull on percussion anteriorly, resonant in the flanks. A trocar, having been introduced into the tumour, drew off a large quantity of albuminous fluid; when the abdomen became resonant."

It will be remarked that the tumour, which was ovarian, was here a single cyst; that it commenced in the middle line, and was of about eight weeks' duration.

"A yet more rapid case is that (No. XXXIV.) of A. N., aged 23. Eleven months ago she first perceived a tumour of the abdomen, she thinks on the left side. The swelling increased very rapidly, so much so that in two weeks it attained nearly its present dimensions.

"On examination, the abdomen was found to be uniformly distended, dull on percussion anteriorly, and comparatively resonant laterally. Fluctuation was distinct everywhere. This proved to be a simple ovarian tumour."

When the walls of the bladder are thickened, the physical resemblance is increased.

"An exceedingly interesting case (No. XXXV.) came under my notice, in which the tumour appeared to be ovarian, and was of some duration. The urine had been dribbling away for some time, on which her doctor had congratulated her. A catheter was passed, and many pints of urine were drawn off, the bladder being apparently emptied. However, on the following day, almost the same quantity was again removed; and thus, daily for about nine days, a gradual diminution taking place. In about two weeks the quantity was almost normal. She was greatly relieved, and was to all appearance convalescent."

It is uncertain whether this was a case in which a communication existed between an ovarian tumour and the bladder, through which

the fluid slowly passed, so as to have accumulated in the course of hours; or whether there was some great acceleration of action on the part of the kidneys, as in spurious diabetes. I know of no similar instance.

CHAPTER VII.

5. *Of the Lower Bowel of the Pelvis.*

a. *Impaction of Fœces,*

Caused by stricture of, or pressure on the lower bowel, has something in common with an early stage of ovarian dropsy.

Such tumour may exist, situated laterally, especially on the left side, with an indistinct sense of fluctuation, and dull on percussion, while the flanks are resonant; and, being perhaps caused by a pelvic ovarian tumour, may be accompanied by the early symptoms of that disease.

Fat in the walls or in the omentum would greatly increase the difficulty of diagnosis from physical signs.

Dr. Robert Lee in the Cyclopædia of Practical Medicine, mentions a case, in which "an ovarian tumour, having become firmly wedged

between the bladder and bowel, produced all the symptoms of stricture of the bowel."

The history of the case, the intestinal shape of the tumour, its want of definition, and its putty-like consistence should lead to correct conclusions : while, in case of doubt, an internal examination will decide.

CHAPTER VIII.

6. *Of the Connecting Tissue.*

a. Abscess.

Pelvic abscess, frequently originating in the broad ligament after miscarriage, labour, or some operation on the womb, may travel upward even as high as the ribs. The diagnosis is generally clear from the history, the inflammatory fever, the increase of heat gauged by the thermometer, the shiverings, the throbbing, the great tenderness on pressure, and the induration. On approaching the surface, should it tend to burst externally, the skin is red and indurated.

Case XXXVI.—"Mrs. S., a tall, fair, thin, weakly-looking woman, had a miscarriage a month ago, but did not lay up. After three days she had to keep to her house, and then

suffered from shiverings. She now has a temperature four degrees above the natural heat, a fast, weak pulse of 120, and a damp, flabby skin. There is felt a sense of fulness in the abdomen, above the pubes; and, on examination by the vagina, pressure on the abdomen is felt in the vagina. On the right side of the womb is felt a firm, resisting tumour, apparently of the size of an orange, of defined extent; in form rounded, and very tender. The tissue about feels indurated, and the womb is fixed, or only moved with much pain. This was thought to be a pelvic abscess, and, on being opened, half a pint of thick, offensive matter came away. Having continued to discharge more or less for a fortnight, the wound closed up and the woman recovered."

Such abscesses, so originating, may travel upwards in the abdominal walls, become of great size, and ultimately break even as high up as the ribs.

The case in which an ovarian cyst simulated this condition has been already mentioned under the heading "Abscess of the Ovary," on page 20, Case II.

In a very interesting case detailed at length under "Encysted Pregnancy Outside-the-Womb," which it proved to be, but by some supposed to be ovarian, an eminent physician was of opinion that the tumour was an abscess arising from inflammation of the pelvic connecting tissue.

β. Tumour from Blood Poured Out around the Womb

May reach beyond the navel, and thus closely simulate an ovarian cyst, into which bleeding has occurred; such a case being recorded by Dr. M'Clintock.

The main points of difference are the suddenness of the occurrence of the tumour, in connection with sudden faintness and great irregularity and pain at the monthly times. Such tumours are by no means rare, but are frequently classed among other diseases. It, however, rarely attains to such a size as that mentioned above.

Case No. XXXVII.—"I was asked to see Mrs. C., aged 27, in consultation. Her history was, that she had been married six years, but

had had no children; had always suffered much pain at her monthly times, so that she had to keep her bed the first day; and the discharge had habitually been copious. Of late, the quantity had decreased, and she had had so much pain that she had remained in bed usually for two, and sometimes for three or even four days, during which time she had suffered much from headache, and had once bled from the nose. On the last occasion had been in bed with unusually much pain, when she experienced a sudden relief thereto, but felt weak and faint. She presently seemed well enough to get up. However, after sitting up for half an hour, she had shiverings, and again had to lie down; since which time she has remained in bed. She then experienced great pain, with sense of fulness and pressure on the right side of the body, "deep down." She now feels tolerably comfortable, if she keeps quiet; but brings on the pain if she moves quickly. The bowels are much confined, and her water dribbles away; for to strain causes pain.

"On examination of the abdomen a general tension is felt from just above the pubes down-

wards, where it seems impossible to relax the muscles. Percussion, too, is somewhat dull. The bladder is empty. By the vagina is felt a rounded solid tumour, tolerably well defined behind the womb, extending round to the left side, pressing backwards on the bowel, and pushing the womb forwards and its body upwards. The mouth of the womb is high up; its canal much contracted; and its cavity is of the normal size, and empty. The tumour seems fixed, is pulpy to the feel, and is but slightly tender. Its lower rounded end seems equal to that of a large apple.

"I was of opinion that, the canal of the womb having become contracted, the monthly flow, being unable adequately to escape in the natural direction, had been obstructed, and had passed along the Fallopian tube into the pelvic cavity; where, the quantity having been much increased by the irritation, it formed a considerable mass: that the blood had coagulated there, and thus formed a defined tumour.

"Absorbents were ordered, the canal dilated, irritation controlled, and after some time the tumour was found to be much reduced in size,

and the monthly courses were almost painless. Later, the tumour being imperceptible, the canal of the womb was opened and kept expanded, and six months afterwards Mrs. C. fell in the family way."

CHAPTER IX.

Diseases and Conditions having their origin in the parts or organs of

(B.). THE ABDOMEN

ARISE from some organ or part situated above the bones of the pelvis, and consequently grow from above downwards in the direction of the pelvis: in which case it may be, that the resonant intestine is found below the tumour; this decides the seat of the growth, and is open to but one source of fallacy, as when a tumour has a pedicle so small and narrow as not to be felt, nor to produce continuous dulness.

"In such a case (No. XXXVIII.) a girl of twenty years of age, of excellent health and appearance, had a firm, fluctuating, freely movable tumour of the size of a child's head, situated under the diaphragm, on the left side. The

opinions of the physicians varied. One considered the case uncertain. Pregnancy outside-the-womb, hydatids of the liver, and abdominal cyst were much in favour. Ovarian dropsy and movable kidneys were mentioned. This tumour gradually increased in size; and, ultimately, an ovarian cyst was found, having a long and thin pedicle, or cord of attachment. Such cases are, however, rare."

In addition, in diseases of the abdominal organs, we may find the peculiar symptoms thereof marked.

7. *Of Tumours of the Abdominal Walls.*

Various conditions of the walls contribute greatly to the difficulty of examination, and occasionally, though rarely, very closely simulate ovarian dropsy. Among the former are—

α. Conditions or excess of the fat and muscles;
β. Dropsy of the walls.

Among the latter—

γ. Abscess of the walls;
δ. Cyst of the walls;
ε. Cancer of the walls.

a. Of Conditions, or Excess of the Fat and Muscles.

Very many patients come with the complaint, strengthened, perhaps, by the opinion of their medical man, of an abdominal tumour, in whom nothing more exists than a great amount of fat. The sound elicited by percussion with the fingers may be somewhat dull, even though the intestines be, as they often are, flatulent; and it requires some instrument by which the sound is given out clearer and sharper, thoroughly to satisfy one of the non-existence of a tumour. Moreover, in the examination into the existence of fluctuation, the flabby walls so conduct the impulse given, as very closely to simulate the presence of fluid; and only when this tremor has been interrupted by an intervening body, as before described, is the total absence of fluctuation apparent. The description of the examination of a certain patient is thus given:—

Case XXXIX.—"The walls of the abdomen are loaded with fat. The navel is level with the walls. On firm pressure to the left of the abdomen, and also somewhat to the right side,

is a feeling of resistance, but no definable tumour; over this space it is perfectly dull on percussion, which dulness extends over to the right iliac fossa. There is dulness in the right flank, resonance in the left. No fluctuation can be detected."

From such conditions, only a very unsatisfactory conclusion as to the nature of the case can be drawn. It ultimately proved that the diagnosis of ovarian dropsy was correct.

Case XL.—"A lady, Mrs. J. M., consulted me in much tribulation of mind, having made all preparations for her confinement, which she calculated should have occurred previously. She now thought she must have a tumour. Her age was forty-five. She had had several children, the last three years previously, when I had attended her in an instrumental confinement; from which she made a rapid recovery. Her courses had ceased a year ago, and she had been throughout in good health.

"She was short and very fat; the walls of her abdomen were excessively thick and were prominent, so that they hung down in folds. The percussion sound was everywhere dully

resonant, except towards the left flank, where the resonance was much less marked.

"On examination by the vagina, the womb was found to be healthy and empty, but the bowel was distended with a pulpy mass; and, on inquiry, it was found her bowels acted very irregularly. After a purgative had brought away a considerable quantity of hard fœces, the resonance was increased equally all over the bowels, and it was evident that there was no tumour. She was in perfect health four years afterwards."

Such cases as these are very common; and, as in the former of the two cases here given (No. XXXIX.), it is always possible that a tumour may exist with, and be masked by, much fat.

The presence of much gas in the intestines by distending the abdomen, and the contraction of the rectal muscles by giving an irregular sense of resistance, enhance the deception; and, so far as is possible, account for such facts as that mentioned by Mr. Lizars, where fat in the walls and in the omentum was confounded with ovarian dropsy: and by Dr. Bright,

where the abdomen was opened for the removal of an imaginary ovarian tumour in a case of Hysteria.

In such cases it is desirable, on examination, to divert the attention of the patient, or even to give chloroform.

β. Dropsy of the Walls

Is also, at times, a source of difficulty of the same nature as fat, but not increasing the size of the walls to the same degree. (See also, page 102.)

γ. Abscess of the Walls.

Of this disease, when originating in front, many of the differential points have been already described. There is a history of some injury or previous cause for such inflammation, with much pain, increase of temperature, fast pulse, and general constitutional symptoms. Locally, are present redness, swelling, pain on pressure, and local heat; while the tumour is felt to be high up from the pelvis, and the parts below it are perfectly resonant. Such cases are rare.

Less uncommon is abscess originating in the back part of the walls, which may travel round and burst in front, in the pelvis, or behind. Such a case is the following :—

No. XLI.—"I was sent for to see a married woman who was suffering from a deep-seated pain in the loins. She had had five children, the last two years ago; been much exposed of late to cold and wet, had been working hard, and thought she had strained her back inside. Her courses had been regular and natural.

"She was 35 years old, dark complexioned, well-made and vigorous looking ; her body heat was raised three degrees, and her pulse was 120. Her abdomen was somewhat tense, as if she were afraid to relax the muscles of its walls, lest the fingers, pressing, should give pain. There was some fulness and slight tenderness on gentle pressure in the right flank and towards that groin. By the vagina all seemed healthy; except perhaps some slight sensation of fulness behind the womb, where too she tended to avoid pressure.

"After treatment her increased heat subsided, and her pulse sank to 100: but there was still

some tension in the right flank, which, however, steadily decreased.

"A week from the first attendance she was much worse; suffering from a renewal of all her early symptoms, having slept the previous night in a strong draught between an open lower window and the door; having kicked off the clothes, she awoke shivering. She did not now improve as before, but in due course an abscess pointed at the lower part of the right flank near the groin; and a large quantity of matter came away. She was suffering from abscess originating in the deep muscles of the back, probably the Psoas."

δ. *Cystic Tumour of the Walls of the Abdomen,*

Though very rare, may be there developed; and when large and extending down towards, or into the pelvis, can be diagnosed only with the greatest difficulty. In such a case the history of its early position may be the main point of distinction. Early in the disease too it might be felt to be external to the abdominal cavity.

Kiwisch has related a case in his *Klin. Vortr. Bd.* "The patient was twenty years of age.

The tumour first appeared after the suppression of the menstruation. It formed gradually, attained a large size, and was repeatedly tapped of large quantities of fluid. After death, behind the peritoneal membrane, occupying the regions of the loins, below the ribs, and extending down into the pelvis, were found three large tumours; one composed of a large cyst, and the two others of cysts, together with fibrous tissue."

Mr. Safford Lee relates a similar case, in which "the cyst of twenty-five years' duration was found to contain fat, hair, teeth, and bones." It is probable that this was an encysted pregnancy outside-the-womb.

ε. *Cancer of the Abdominal Walls*

Very rarely occurs, and in certain situations and in some of its varieties, as already explained, may closely resemble the physical signs of ovarian tumour. The pain, the peculiar cancerous state of the constitution, and the existence of small cancerous nodules in the neighbourhood, or of similar disease elsewhere, combined with the absence of the tumour in the pelvis, and probably resonance on percussion between the

pubic bone and the lower border of the tumour, are points sufficiently diagnostic.

In a case of cancer of the abdominal walls, operated upon by Dr. Tyler Smith, under the impression that it was an ovarian tumour, "Cancerous tumours were found in great numbers in the epiploon or caul of the entrails."

CHAPTER X.

8. *Of Tumours or Conditions of the Peritoneum, or Lining Membrane of the Abdominal Cavity.*

a. Dropsy

Has frequently been confounded with ovarian tumours, and is not seldom diagnosed with difficulty.

In a case I saw, (No. XLII.,) "an ovarian tumour, first noticed after a confinement, had been supposed to be, and was treated as dropsy." Dropsy, too, has been supposed to be an ovarian tumour, been tapped, and the peritoneal cavity injected with iodine. The patient died. Many such examples could be cited. The occasional closeness of resemblance will be shown in the account of differential points.

The history is of much importance; and,

where the physical signs from great distension are dubious, mainly to be depended upon. There is no account of a defined tumour, but rather that of general increase. The duration of the disease is comparatively short. It may have been, that the legs, or some other part, first swelled; and the disease, so passing on, reached the abdomen. It may have been preceded by some organic affection, as diseased kidneys, rheumatic fever with heart symptoms; the liver may have been affected, with perhaps jaundice; or the patient may have had scarlet fever. The patient may have been an occasional drunkard; or worse, so far as the constitution is concerned, a systematic soaker; or some such statement of the greatest importance may be made. But again such an account may be absent.

An inflammation of the peritoneum previously unsuspected, yet which must have had some acute symptoms probably recognizable by the use of the medical thermometer, may have existed for a considerable period; a comparatively slight cause having given the disease an impulse; as in the following

Case, (No. XLIII.)—"Some years ago I was asked to give chloroform to a lady for an operation on the womb. Her general condition then seemed good enough, so far as I examined her, which was only with reference to the safety of giving the chloroform; not being required to express an opinion on the question of the operation. This was safely and well done; but she was dead in two days. It was afterwards found that she had had a comparatively recent inflammation of the reflections of the peritoneum over the womb and about the ovaries, where were thickenings and exudations of half solid and cheesy yellowish fibrin. The operation had renewed this affection, and acute inflammation of the peritoneal lining membrane rapidly caused death; of which all the usual fresh evidences were present. I think that, had the medical thermometer been used previously, some slight rise, at least, in heat, would have been found."

There may, too, be expected to be some account of the benefit derived from medicine, which will probably have been, at least, slight during some period.

On examination there may be found to be some organic disease, of which dropsy is frequently a symptom ; as diseased valves of the heart, the presence of albumen, or epithelial casts in the urine. The abdominal surface may be exceedingly sensitive, and apparently point to inflammation of the peritoneal membrane. Such circumstances are always suspicious, though they may be merely concurrent with, or consequent upon, ovarian tumour.

In all cases of obstruction to the circulation through the veins, other vessels, and consequently structures, are affected. Thus the extremities, and especially the legs, early become dropsical, and the surface veins of the abdomen stand out. An ovarian tumour, by pressing on the large abdominal veins, may similarly cause obstruction with its symptoms ; but this is found, perhaps, in only one leg ; or in both rarely till late, when the powers of life are giving way. Indeed, the legs of her who suffers from ovarian dropsy, even in an advanced stage, are generally but sticks ; forming a strong contrast to the enormous size of the body. In dropsy, caused by inflammation of the peritoneum,

there need be no general obstruction ; simply the pouring out of fluid into the peritoneal cavity : and, again, such inflammation may be caused by the irritating presence of an ovarian tumour. In such complications, for this reason, and from the slightly irritating and chronic nature of the tumour, the surface veins of the abdomen are not early distended.

Other symptoms, such as difficulty of breathing, acceleration of the heart's action and palpitation, local or general dropsy of the skin, appearing when the ovarian tumour greatly distends the abdomen, or has reached an advanced stage, are frequently among the earliest complaints in dropsy of the bowels ; with which, retention of, or inability to hold the urine, and obstinate constipation, have no mechanical connection.

On examination of the abdomen in dropsy, its size is most variable. In form, the sides are similar. The lowest part is most distended. When the patient lies flat on her back, an ovoid form is assumed. In position, the fluid sinks to the lowest part available, and on its surface float the intestines ; unless they be bound down by adhesions. Thus the position of the

dropsical fluid varies with the position of the patient. Its surface-line, at different points, is on the same level. Its consistence is equable at all points; and no definable tumour can be felt. On percussion the abdomen is dull at the lower part, where is the fluid; resonant at the upper part, where are the intestines. This condition is, however, occasionally simulated by ovarian disease, as in the case of M. A. J. (No. VI.), where "The tumour lay upon the posterior wall, pushing the mass of the intestines upwards and forwards." In such a case the differential diagnosis would be decided by the variation of the level in the line of dulness, and the non-fulfilment of the necessary conditions in different positions.

The exceptions to this are—(1), where the intestines are bound down: and (2), where there is such an amount of fluid, as that the whole abdomen is dull.

(1) Where the intestines are bound down, it may be, that the flanks or some other parts are resonant; while a higher point is dull, which point remains in the same condition in all positions. Of this the following is an example.

Case XLIV.—" Dropsy simulating ovarian tumour : Chronic inflammation of the peritoneum. S. P., aged 45, a badly nourished woman, has been married 20 years, and has had 7 children, the last 3 years ago. She says that she has for some time been subject to pain across the loins, which became worse eight weeks ago ; and in a few days her urine diminished in quantity, and her body increased in size. For some time her feet have swelled towards night. She has been sick for some days, and complains of pain in the back and abdomen.

" The breathing is shallow, 28 times a minute. The pulse is 124, feeble and soft. The tongue is clean and moist. The bowels are open from an injection. The appetite is bad. The urine is reported as scanty. Her courses are natural. At the point of the heart the first sound is slightly prolonged, otherwise natural.

" The abdomen is uniformly distended. The surface veins are enlarged. There is no tenderness. Fluctuation is very distinct. Anteriorly there is dulness on percussion ; in the flanks

slight resonance ; and there is no alteration in this condition on change of position.

" She was tapped of 5 quarts of yellowish, somewhat viscid fluid. Afterwards, on opening the abdomen, a quantity of yellow serum escaped, but there was no trace of a cyst or tumour. Bridles of organized lymph stretched from the abdominal walls in several directions. The small intestines were matted together, and compressed towards the spine. Part of the great intestines, the colon, distended with gas, was on each side adherent to the abdominal walls, and the stomach to the diaphragm. The peritoneal lining membrane was everywhere thickened and granular. Both ovaries were healthy."

This case was supposed to have been one of ovarian tumour : and though some points tend towards dropsy, the physical signs are those of ovarian disease. A correct diagnosis in such a case must always be most difficult.

(2) Where the dropsical fluid is in such quantity, that the whole abdomen is dull on percussion, is a condition similar to such as may exist in ovarian tumours.

Case XLV.—"E. H., aged 39, has the history of an ovarian tumour, and has been tapped twice.

"On examination, the abdomen is very much distended and very tense: the navel is nearly obliterated. On percussion it is dull all over, and fluctuation is everywhere present. After tapping she was found to be the subject of a many-chambered ovarian tumour."

In such cases the only mode, and that requisite from the patient's condition, of making a satisfactory examination is, that the tension be relieved by tapping; after which, the case is in a condition for ordinary investigation. On the other hand, the following is a common case of dropsy in an advanced stage.

Case XLVI.—"N. B., aged 50, married, of a dirty yellow-colour, with hollow cheeks, and anxious expression, complains of an aching pain in her body, especially about the navel and up to the ribs, which began two years ago, and has increased up to the present time, especially during the last month. Says, that eight years ago, she hurt herself lifting a weight, and has not been well since.

"Her abdomen is greatly distended, and fluctuation is everywhere felt. On percussion, the upper surface is resonant: all else is dull; and similarly on change of position. The legs are very dropsical.

"After death, there was found a very small contracted liver from cirrhosis, and the abdomen was full of clear yellow serous fluid, which had exuded through the coats of the vessels; since the state of the liver obstructed its onward passage. The ovaries were healthy."

Fluctuation is generally evident, as compared with the more obscure sensation in ovarian tumour: that clearness, however, depends upon the degree of tension; and it may be, that under unfavourable circumstances in dropsy, and favourable conditions in ovarian tumour, it is more clearly perceptible in the latter disease than in the former. It is equable and equally diffused at all points: below the surface of the fluid, dull on percussion in all positions. Thus, in the early stage of ovarian tumour, the circumscribed extent of fluctuation is a certain differential sign.

Of the complications of dropsy which simulate

the conditions of ovarian tumour, the following may be mentioned.

Dropsy, with chronic inflammation of the peritoneal lining membrane and accumulation of gas in the intestines, closely approaches the form of ovarian tumour. The points of difference are evident; and if there be difficulty in the examination, it is removed by the administration of chloroform.

Dropsy, with fat walls and thickened peritoneum, renders the percussion sound more or less dull, as in Case XXXIX., and the sense of resistance greater. Such a case is mentioned by Dr. Bright, where was a small solid ovarian tumour with dropsy; but the peritoneum was so thickened, that, until the post-mortem examination, the existence of ovarian tumour only, was supposed.

In dropsy with a tumour, the perception of the latter depends upon the amount of the former. Where but a thin layer intervenes, the fingers, pressed suddenly inwards, come upon and are resisted by the more solid body beyond. If such a tumour be small, ballottement may be present, as in Case V.; which ceased on the

increase of the dropsy, probably from the shortness of its pedicle or stalk, which did not permit the tumour to reach the more distant surface of the fluid. When the dropsical fluid is in excessive quantity, it may be that a distinctive examination can only be made after tapping, as in a case quoted above.

Dropsy with an ovarian tumour is by no means uncommon; but it is more likely to occur where that tumour is of a cancerous character: thus, in cases V. and VI., inflammation of the peritoneum existed, with effusion of recent lymph. In Case VII. this was absent.

Besides these conditions, dropsy, with other tumours—such as the pregnant womb, hydatids of the liver, pregnancy-outside-the-womb, and many more—have simulated ovarian tumour; of which the distinguishing points have already been—or remain to be—described.

γ. *Cystic Tumour of the Peritoneum, or Lining Membrane of the Abdominal Cavity*

Is exceedingly rare, and probably undistinguishable from ovarian dropsy, unless in some peculiar situation. In a case of cystic tumour of the

omentum, Mr. Safford Lee says :—" At the upper part of the abdominal cavity, attached to the peritoneal surface, were a number of well-defined cysts, containing a clear fluid."

Sir James Simpson has described a case of hydatids situated in the peritoneal cavity, external to a large ovarian tumour. They had originated in the peritoneal basement membrane, and had become detached.

Dr. Bright has also related the case of a man, in whom was an hydatid tumour situated between the bladder and lower bowel.

Tapping with a hair trocar and microscopic examination of the fluid would most probably give the desired information.

Cancer of the peritoneal membrane is exceedingly rare as a primary affection, and only requires mention.

CHAPTER XI.

9. *Of Tumours or Conditions of the Folds of the Peritoneum, the Omentum and Mesentery.*

a. Fat.

This condition, when in great excess, may convey the sensation of the presence of a tumour; while the doughy feel simulates fluctuation. Combined with fat walls, an excess of gas in the intestines, and spasmodic contractions of the rectal muscles in front of the abdomen, the first impression conveyed may be quite that of ovarian tumour. It may be similar in form, position, and consistence; somewhat dull on percussion, with a more or less indistinct sense of fluctuation; and may resemble a tumour in the movement of the walls over the surface of the body beneath. The flanks are more resonant.

Mr. Lizars mentions an instance, in which fat in the omentum and walls was confounded with ovarian tumour: and I am acquainted with two cases, where the abdomen was opened for the extraction of a supposed ovarian tumour, where no tumour was found to extract. One of these patients died. The general impression conveyed is illustrated in Case XXXIX., quoted under "Fat in the Abdominal Walls," see page 94. A rare case, which, if occurring in a woman, might have led to much speculation, is the following:

Case No. XLVII.—"E. S., 47 years of age, and married, is a stout man with anxious expression, and blood-shot eyes, who was quite well a fortnight ago; has inflammation of the peritoneal lining membrane, and of the bowels. He suffers from frequent and violent retching, which causes him to vomit blood like coffee grounds; his stools being of the same character.

"On examination, his abdomen was round, much distended, and very tender on pressure. Fluctuation could everywhere be felt. On percussion, when lying on his back, his abdomen

was dull both in front and at the sides; but when on one side, the upper part was resonant.

"After three days, his abdomen not being so tender, a tumour in the region of, and supposed to be the spleen, could be detected.

"After death, on opening the very fat walls of the abdomen, a large quantity of clear yellow fluid escaped. The small intestines, of a purple colour, were matted together in loops, by freshly thrown out lymph in the middle of the abdomen, forming a raised rounded mass: but on all sides of them were immense masses of a hard yellowish fatty substance, secreted by the omentum and mesentery. This extended quite around the bowels, enveloping them and the stomach everywhere; to which they were so adherent, that they could only be separated by the knife. Part of this had been felt during life, and had been thought to be the spleen. It seemed probable that these tumours were of a cancerous nature, but no cancer cells were detected. The heart had much fat on its outer surface; and indeed the exterior of all the organs of the body, except the kidneys, were in the same state."

Apart from the history and the sex, simpler cases have been mistaken for ovarian dropsy.

As detailed under "Fat of the Walls of the abdomen," on page 94, by a careful examination into the history, the general good health, the use of an artificial percussor and plate, by diverting the attention, or the exhibition of chloroform, and the absence of all fulness or tumour in the pelvis, a correct diagnosis may be arrived at.

β. Cystic Disease of the Omentum and Mesentery,

Simple or hydatid, is exceedingly rare: but its diagnosis is as easy as, and similar to that of such disease in a corresponding situation in the liver, or elsewhere in the abdominal cavity.

Mr. Safford Lee has reported a case, in which "a cystic tumour commenced on the right side of the abdomen. It was tapped forty-eight times. At the post-mortem examination it was found to have originated in the omentum close by the pancreas; and was attached by a long thin stalk to the womb; but was entirely unconnected with the ovaries."

γ. Cancer of the Omentum and Mesentery

Is very rare. To quote Dr. Walshe, "Colloid cancer of the omentum, spreading like a sort of apron in front of the intestines, gives rise to a dull percussion sound in proportion to its extent." In a case of cancer of the abdominal walls, operated upon by Dr. Tyler Smith, under the impression that it was an ovarian tumour, "Cancerous tumours in great number were found in the omentum."

A case was diagnosed by Dr. Bächner, of the United States, as ovarian tumour, which proved to be a tumour of the mesentery. Dr. Bright describes a case of large fungous disease of the glands of the mesentery resembling an enlarged kidney, which during life was supposed to have been an ovarian tumour.

Such cases, so rare, are probably incapable of certain distinction from ovarian dropsy; except so far as their situation may be in the abdomen, and their direction of growth be found to be downwards.

CHAPTER XII.

10. *Of Tumours and Conditions of the Intestines.*

a. *Of their Various Positions, and of Flatulence.*

THOUGH conditions of the intestines themselves rarely resemble ovarian dropsy, yet in various ways in connection with tumours the difficulty of diagnosis is greatly increased. While some have been already mentioned, others remain: and it may be well briefly to relate such states and complications as may occur.

Of flatulence, with much fat about the intestines and walls, I have before spoken under the heading "Omentum," on page 115: and of flatulence, with chronic inflammation of the peritoneum and dropsy, under "Dropsy" on page 102.

In the case of a comparatively small tumour, the account of the patient may give an incorrect idea of the size and rate of progress, owing to variation in the dimensions of the abdomen from the presence of distended intestines.

Case XLVIII.—"E. L., aged 39, was the subject of an ovarian tumour. She states that her body used to vary considerably in size; that one day it would appear unusually large, and the next suddenly diminished. She used to pass large quantities of wind by the bowel."

Case XLIX.—"A. N., aged 23, the subject of ovarian dropsy, states, that at one time her body used to vary in size considerably; and was very perceptibly diminished, when she passed large quantities of gas."

On examination such a condition will be at once evident, but it may throw doubt on the history.

The tumour may be partially situated under the intestines; and this may be more extensive than, and not merely flatulence as, was supposed.

Case L.—"S. A. N., aged 54 years, had a many-chambered ovarian tumour, extending up

to the ninth rib, beneath the great omentum and that part of the large intestine known as the colon. The omentum was slightly adherent to its front surface."

The intestine may be bound down by adhesions, and, with dropsy, may very closely resemble ovarian tumour. Such a case (No. XLIV.) is detailed under "Dropsy of the Peritoneum," on page 108.

In the above-named conditions, and perhaps where the intestine is bound down to the side, the movement of the gas, and the variation in size at different times, are distinguishing marks, and add to the knowledge gained by percussion. The exhibition of a purgative may produce the desired result, or the introduction of a tube into the bowel will draw off the gas.

β. Of Communications between the Intestines and an Ovarian Tumour.

When a communication has, by ulceration and destruction of tissue, been formed between the adjacent adherent walls of an ovarian tumour and of the intestines, the physical signs are quite altered; and, were the case then seen for the

first time, and with an indistinct history, would probably lead to error. Under such circumstances, the abdomen may be uniformly distended, resonant, and not fluctuating. The history may be that of an ovarian tumour, with a sudden passage of much clear, gummy, or otherwise remarkable fluid by the bowel, with corresponding diminution in size; after which the original large dimensions may be regained. Upon the correctness of the history depends the correctness of the diagnosis. Dr. Bright has recorded a case where an ovarian tumour communicated with the large intestine.

It is convenient again to introduce the following case:—

No. XXIII.—"A. F., aged 38, had been tapped several times, and was known to be suffering from ovarian tumour. On examination, the swelling occupied a central position. It was dull on percussion; there was resonance below the right ribs. Fluctuation was communicated to the hand continuously over almost every part.

"A week later the abdomen was resonant over a space about three inches square above

the navel: two days afterwards there was tympanitic resonance over the whole of the front of the abdomen, with dulness at the sides. After two days more the abdomen was increased in size, and in front was still more tympanitic; with considerable bulging at the sides, which were dull.

"Some days after, she was tapped, and a considerable quantity of highly offensive gas, as if from the decomposition of animal matter, escaped. The patient soon after died, when a large, thin-walled ovarian cyst was found, containing a great quantity of very fœtid gas, with two or three pints of thick, white, mattery fluid, without trace of fœcal matter. Between four and five inches above the ileo-cœcal valve of the intestines was found, in the closely adherent cyst and intestine, an opening of the size of a crowquill, through which, into the cyst, passed water injected by the bowel."

γ. *Accumulation of Fœces in the Bowel*

Is situated in the line of the intestine, is sausage-like in form, pulpy in consistence, dull on percussion, but resonant in the same line or neigh-

bourhood, with perhaps an indistinct sense of fluctuation. The history tells of costiveness, perhaps of the passing of hard fœcal balls. Purgatives and injections remove the mass.

Case LI.—"I was asked to see a lady in consultation with her medical attendant. She was suffering from bronchitis. Her bowels had not acted for some days, though she had taken much purgative medicine.

"On examination of the abdomen, it was found much enlarged, and a tumour was felt of considerable size. It extended in irregular form with indentations, from the level of the navel downwards and across the body, where it was almost completely dull on percussion; and, higher up, the abdomen was but dully resonant. On pressure, the tumour seemed to yield a little, but no fluctuation could be certainly felt.

"On examination internally, the womb seemed healthy, but the lower bowel was packed and distended by a series of lumps of the size of a duck's egg, which were so hard that pressure did not indent them.

"These were removed from the bowel with much difficulty and pain, for the bowel seemed

paralyzed by the long distension, and were found to be composed of densely compressed, almost stony fœces. Carefully-arranged injections and other management removed enormous quantities of more or less similar lumps: and in this manner the tumour was quite eradicated, so that the abdomen became soft and tympanitic; her bronchitis being at once relieved."

Dr. Walshe mentions the possible existence of liquid stools passing through a tunnel of solid matter adherent to the walls of the intestines.

Dr. Bright mentions the complication of flatulent intestines with indistinct fluctuation from liquid fœces, or a distended bladder.

CHAPTER XIII.

11. *Of Tumours of the Liver.*

Tumours of the liver, simulating ovarian disease, are diagnosed by the history of their early position; by their direction of growth downwards from the liver; perhaps by resonance on percussion below them; and perhaps, also, though not infrequently absent, by interference with the normal functions of the organ; and that especially by jaundice. Yet all these signs and symptoms may be absent; and the tumour, reaching into the pelvic cavity, remain of doubtful character. On the other hand, an ovarian tumour, with a long narrow pedicle or stalk, may be situated high up in the abdominal cavity, where it was first noticed; as in case No. XXXVIII., quoted before.

a. *Solid Enlargement of the Liver*

Rarely reaches such dimensions as to be likely to be mistaken for ovarian dropsy; yet, cases of extreme size do occasionally occur, so that both in extent and position error might arise.

Case No. LII.—"I was asked to see Mrs. H. in consultation, who was said to be suffering from a tumour. She was 55 years old, had been ill for three years, frequently having attacks of diarrhœa, which relieved her. She was short of breath, and was generally spitting blood.

"She was a fat, puffy, large woman, with slightly yellow whites to her eyes, and slightly dropsical legs. Her abdomen was much distended; and, on putting her carefully into position, a tumour could be felt over the whole of its front, extending from the ribs down to two inches above the pubic bone. Here a defined edge could be distinctly felt. Both flanks were dull; but there was resonance just above the pubic bone. Enormous enlargement of the liver with dropsy was correctly diagnosed, as was afterwards proved."

"A similar case (No. LIII.) was that of Mrs. C , whose legs had been swelling, and her body increasing in size for some months ; so that at last she was laid up, and was in great tribulation of mind about her 'tumour.' The conditions were very similar to those in the former case as to the size of the liver ; but in Mrs. C., the extent was less, and there was no dropsy of the body. For some two or three weeks she did not improve, but rather got worse. On finding, however, one morning the remains of a bottle of rum hidden in the bedclothes, which, holding about a pint, I found she emptied daily; and taking care that no means remained open, through which she could get the grog which was the cause of the liver enlargement, her 'tumour' rapidly decreased."

β. Cystic Tumour of the Liver

Very rarely exists otherwise than in the form of hydatids; in which, especially, symptoms of diseased action of the liver, as jaundice, are usually absent. If the differential points mentioned above are not present, error may arise.

Case LIV.—" Mrs. S. came to me from a long distance, having for many years been troubled with a tumour. She was short, thin in the face, arms and legs; but her body was of great size, both in depth and width. There was found, occupying the abdominal cavity, a tumour, or tumours, extending from just above the pubic bone up under the diaphragm ; and so pushing up the lung, that it did not occupy its full lower space by a fourth. Near the pubes it was narrow, and more to the right side ; but higher up it occupied the whole breadth of the abdominal cavity. The tumour was irregular in form, and was especially prominent on the left side, so that the heart was pushed up and toward the middle line ; it felt as if it might be composed of different cysts connected together, as in a many-chambered ovarian tumour. It was as movable as could be expected from its size ; and there was no evidence of adhesions. The womb was healthy and empty.

" On percussion the tumour was everywhere dull ; but the flanks were resonant, and especially on the right side. Resonance, too, extended

across the whole abdomen just above the pubes, where the rounded end of the tumour could be felt.

"From the length of time she had had the tumour; her comparative freedom from symptoms or discomfort, except from the mechanical bulk; from the resonance above the pubes; and from the large size of the tumour at the upper part of the abdomen, in comparison with its apparent absence at the lower; and the improbability of so large a tumour having so small a pedicle or stalk, as it must have had, were it ovarian, I concluded that the mass was a collection of hydatid cysts, the first, probably, originating in the liver. Microscopic examination of fluid drawn by a hair trocar from the right tumour showed this opinion to be correct; and, whereas this tumour was thereby emptied, others retained their former size. The hooks of the echinococcus being freely found, the future treatment was simple."

It is, however, possible, that an ovarian tumour, with a long pedicle or stalk, might, by inflammation in a patient lying down, as she would at such time, become adherent high up,

where the cysts might grow and increase in size.

Again. (Case LV.)—" Mrs. S., a middle-sized, dark-complexioned, thin woman, with a pinched face, was attacked by inflammation of the lungs, and had been ill several days. When first seen her lips were very blue, her face dull and somewhat livid, and the lower half of the right lung behind was solid from inflammation. Her pulse was 120, and her breathing rapid and shallow. She also had a yellowish tinge in the whites of her eyes ; which, however, is common in inflammation of the lungs.

"On examining her liver, I found a large tumour occupying the whole of the front of the abdominal cavity, but especially the right side, from the ribs close down to the pubic bone ; above which its edge, as of the liver, could be felt. It was smooth; its surface regular and elastic ; and, though it seemed to convey a sense of fluctuation, it was not decided, from its tension and resiliency. On percussion, dulness extended uninterruptedly from the lowest part of the tumour felt above the pubes, as high as the right breast, and similarly wherever the tumour

could be felt. The flanks were resonant, as also was the small space between the lower border of the tumour and the pubes.

"The patient said she did not know she had a tumour, nor how long it had been there; but thought her body was too large, and had long felt weak.

"For the same reasons as in the former case, and its being apparently continuous with the liver, a simple hydatid tumour, rising from the liver, was diagnosed: and, after her entire recovery from the lung affection, it was successfully treated, and proved to be of that nature. She afterwards grew fat and strong; and in three years had two children, after having been barren for eight years."

Frequently, however, hydatid tumours produce neither emaciation nor affect child-bearing; but in both these cases the tumours were unusually large.

The notes of the following case were taken by me fourteen years ago, and the nature of the tumours is uncertain. Moreover, the treatment which is now so successful in hydatid cysts, and which decides the diagnosis, was not then

adopted or known in its present manner. The opinion of the physician who attended was, that they were fibrous tumours; but it is more probable that they were hydatid cysts. The patient was a man; but had such tumours occurred in a woman, their nature must have been doubtful with reference to their origin in the ovary or not.

Case No. LVI.—"R. S., aged 27, has 3 tumours in the abdomen. About 7 years ago first perceived the topmost tumour, which, as he says, 'gets higher up his body.' Was as fat as he is now when the swellings were first evident. Darting or aching pain occasionally comes on in them; otherwise they only inconvenience him by their size, and by making him cough by the pressure.

"He is a broad, fat, and puffy-faced man, of full colour, and purple ears. On examination of the abdomen, a firm, hard, resistant, rounded, smooth tumour is felt, extending from the edges of the right ribs to the level of the navel. It reaches from the middle line of the body across to the middle of the right side. At its lower angle near the middle line is a boss, apparently

of similar consistence, of the size of a small orange. Immediately below this large topmost tumour, and joining its lower edge, is a similar hard tumour, but more oval, lying across the body, freely movable, and having a boss, similar to that on the topmost tumour, at its righthand end. This tumour extends to three inches below the navel. Again, a 3rd and smaller tumour, of the size of a large orange, but having a boss similar to the others to its right, lies below the 2nd tumour, and extends into the pelvic cavity ; out of which it can, however, be lifted. The most marked feature about them was their hardness. Nothing radical was done for the man, and he presently left the hospital."

Dr. Bright has recorded the following case. " In a woman, aged 54 years, the abdomen was greatly enlarged ; the upper two-thirds being occupied by an irregular tumour, indistinctly fluctuating, and in various parts somewhat tender on pressure. The lower part of the abdomen was also occupied by a fluctuating tumour, apparently a large cyst arising from the pelvis. The intervening space was soft ; and was the only

part which gave a clear or tympanitic sound on percussion. From its peculiar and irregular form, it was concluded that it consisted either of hydatids extensively distributed, or was an ovarian tumour : and if the latter,—which, from its very singular form, and more particularly from the existence of the upper portion so separated from the lower, I could scarcely believe,—I supposed that it must be one of those complex and cancerous forms of disease. The case turned out to be one of hydatids. There were two large cysts, one above, and one below, the upper incorporated with the liver ; and between and in front of the two was stretched the transverse large intestine, the colon."

Cases of this kind are comparatively rare.

Mr. Harvey related before the London Medical Society such a case, supposed to have been ovarian dropsy, which proved to be hydatids of the liver.

On the other hand, as in the case No. XXXVIII., quoted on page 92, Dr. Bright records an example, in which an ovarian tumour was ascribed by several most experienced

physicians to hydatids, which after death proved to be ovarian.

γ. *Enlarged Gall Bladder.*

I am not aware that this condition, so very rare in such excess, has been confounded with ovarian dropsy. A case, however, has been recorded by Dr. Bright, in which an excessively distended gall bladder formed a tumour near the crest of the iliac bone at the border of the pelvis. Jaundice was present.

CHAPTER XIV.

12. *Of Tumours of the Spleen.*

Solid enlargements and cysts, chiefly hydatids, of the spleen,—not unfrequently at first sight simulated by the peculiar form and hard masses of ovarian dropsy,—are diagnosed by the points of difference between an abdominal tumour and a pelvic ; and especially by the sharp edge of this organ.

CHAPTER XV.

13. *Of Tumours and Conditions of the Kidney.*

Tumour of the kidney is very frequently mistaken for ovarian dropsy: Firstly, from its comparative rarity; and secondly from the similarity of the physical signs. The converse rarely happens, for the former of these reasons: yet an instance has been before mentioned (Case No. XXXVIII., page 92) in which some thought an ovarian cyst to be a kidney.

As with the liver so with the kidney, much is expected from the history, as the first situation, and the direction of growth: and while symptoms of altered action on the part of the organ may exist, they are frequently absent, the duties of one kidney being performed by the increased action of the other. On examination, the tumour occupies a more forward position

than might have been expected ; but impulse is directly communicated by pressure on the anterior surface to the hand placed, under the loins of the side affected. A resonant depression, or space, also probably exists between the lower part of the swelling and the bones of the pelvis. The intestines overlap or pass over the tumour.

a. Movable Kidney.

A few cases are on record, in which the kidney was not so closely attached to the walls of the loins as is its wont, and was freely movable over part of the abdominal cavity. Perhaps replacing the organ might assist in the diagnosis.

Case LVII.—"A woman, who was being attended for an affection of the womb, was found to have a tumour of the abdomen. She was not aware of anything being wrong there. Over the region of the right kidney was felt a tumour somewhat egg-shaped, and of the size of a large kidney, lying longways down the abdomen ; it could be moved tolerably freely to a little short of the middle line of the body ;

and could be felt between the hands, one being placed under, the other over the flank. In consistence it was firm and resistant. On percussion it was dull; but the parts about it were freely resonant.

"Opinions differed much as to the nature of this tumour: some thinking it ovarian with a long pedicle or stalk; others a local cyst, &c.; but it proved that the diagnosis of movable kidney was correct."

Such movable kidneys are not very rare.

β. Distension by fluid in the Pelvis of the Kidney.

Such a tumour occasionally reaches an enormous size. The fluid contained may be pus, fungoid matter, or blood: the last perhaps caused by cancer of the substance of the kidney.

Case LVIII.—"M. C. complained of some pain and tenderness in the left flank. It was found that she had 3 degrees of fever, a pulse of 120, and was frequently vomiting and shivering. On examining the abdomen, considerable fulness was felt in the right flank; which was so tender, that it was difficult to make a proper ex-

amination from her setting her muscles. The part was dully resonant. The quantity of urine was scanty.

"Two days later she was much better in every respect, and the urine was loaded with purulent matter, which sank to the bottom of the vessel like a creamy cloud. Her heat fell to the normal standard; and she did very well afterwards, with much care."

Here an abscess had formed in the kidney, and, as soon as the matter had found its way into the ureter, the symptoms were relieved.

Case LIX.—"I have seen the pelvis of a kidney distended by a pint of half-cheesy, half-liquid matter, the ureter being closed."

A case is mentioned by Dr. Bright, in which "a large tumour, supposed to be of the womb, was formed by the left kidney; its pelvis being distended by grumous matter, and its substance affected with cancer."

A smaller tumour is not unfrequently formed by tubercular matter, the whole organ being distended by a pulpy mass. Albumen, casts of the tubes, or matter may be present in the urine; or it may be found to be perfectly healthy, if the

tube of the ureter, extending from that kidney to the bladder, be blocked up; the urine being formed in the healthy kidney. Care must be taken that in the passage of the urine for examination, the discharges from the womb are not mingled therewith.

γ. Cystic Tumours of the Kidney

May be developed in the substance of, or be attached to, the kidney; and attain a large size. A case is detailed by Dr. Bright, in which a large cyst containing puriform matter, and connected with the left kidney, simulated disease of the ovary. The patient was 34 years of age, and married. "For about three years she had a tumour on the left side of the abdomen: the exact situation of the part at which it commenced is not ascertained; but it appeared to have been sufficiently low down to have excited a suspicion that it depended on the ovary."

After death, "a large but soft tumour was seen occupying the greater part of the left lumbar and iliac regions. It was evidently an enlargement of the kidney; and when cut into,

it had the appearance of a membranous cyst. The walls were in some places scarcely an eighth of an inch in thickness. The fluid had the appearance of dirty discoloured watery pus."

δ. *Cancer of the Kidney*

Is of more frequent occurrence; when, beside the distinctive points already mentioned, the special symptoms of cancer betray the nature of the disease.

Dr. Greenhalgh has recorded in the St. Bartholomew's Hospital reports a case of cerebriform or brain-like cancer of the left kidney. He says :—

"The opinions of 3 physicians and 1 surgeon, eminent in the diagnosis of abdominal tumours, were sought, who one and all agreed that the enlargement was a very firm, unilocular ovarian tumour." "The left side, which is very prominent, is occupied by a firm, round, uniform growth, extending into the iliac, hypogastric, umbilical, epigastric and hypochondriac regions." "The patient was also pregnant."

"After death, on opening the abdomen a large,

round, bluish-red tumour, the surface of which was freely supplied with large vessels, came into view. It occupied the whole abdomen, especially the left side; and appeared to rest upon the brim of the pelvis. It was pulpy to the feel. At first it was supposed by those present to be an ovarian tumour; but a more attentive examination, after its removal from the body, proved it to be the left kidney in a very advanced stage of brain-like cancerous disease. Its weight was 27 pounds 3 ounces."

Two cases are also mentioned by Dr. Bright. In one, a large tumour, supposed to be of the womb, was formed by the left kidney; of which the pelvis was distended by grumous matter, the substance being affected with cancer.

Secondly, in the museum at Guy's Hospital is the preparation of a kidney affected with fungoid disease: of which the tumour had been at one time thought to be of the ovary, at another of the liver.

CHAPTER XVI.

(C.)—TUMOURS SITUATED IN THE ABDOMINAL CAVITY, BUT HAVING BECOME DETACHED FROM THEIR SOURCE,

Are such as have escaped, or become disconnected from the part, whence they had their origin; and, passing into the cavity of the peritoneum, receive nutrition from adjacent tissues, to which they may have chanced to become attached.

a. Secondary Cystic Tumour.

Hydatids have been already sufficiently referred to. See page 129.

A rare case was brought before the Obstetrical Society in 1865, by Dr. Williams, already referred to on page 35.

"A patient, suffering from what was supposed

to be ovarian disease, which, when first observed, was situated low down in the cavity of the abdomen, was operated upon ; but without success. After death, the cyst was found to be adherent to the diaphragm, &c., but attached nowhere."

In a report sent in to the Obstetrical Society by Drs. Graily Hewett, and Williams, in which Professor Wilson Fox coincided, it was held that, " The tumour had originated in the broad ligament ; and consisted of an expansion and dilatation of one of the little pedunculated cysts, there frequently found in a state of health." It was suggested by Dr. Routh, that it was an escaped and enlarged graafian vesicle.

Such are the two most probable sources, from which such a cyst might arise.

β. Encysted Pregnancy Outside-the-Womb

Is a rare condition ; of which the contents may be a living child, or the *débris* of one previously dead. The former case is more easy of diagnosis than the latter, yet both may be uncertain enough.

The typical history is characteristic of pregnancy : and it may be, that there is an account of rupture of the tube or cyst at the fourth or fifth month, with the accustomed symptoms of pregnancy, and the increase in size of the tumour ; and, perhaps, altered position. It may be, however, and that I believe more commonly, that no such rupture has occurred ; a graafian vesicle, containing a fertilized ovum or egg, having in the first instance escaped into the abdominal cavity, and there become encysted. Should this peculiar condition not have already caused constitutional disturbance, the symptoms of approaching labour occur at the period of natural delivery, and presently cease.

Where the child is dead, the tumour may remain of the same size, and exist many years ; natural pregnancies and deliveries taking place. The abdomen may be distended. The position of the tumour affords no point of distinction. The form is more or less rounded. On deep pressure, a child's limbs and movements may be felt ; and on auscultation, its heart may be heard beating, where the child is alive. In such cases some dropsical fluid is common.

A very interesting case, recorded in the St. Bartholomew's Hospital reports, which by the kindness of Dr. Greenhalgh I saw, well illustrates the difficulty of diagnosis.

"A patient of Mr. Clifton was suffering from an abdominal enlargement, accompanied by severe spasmodic pains, which had existed about $4\frac{1}{2}$ months. He was of opinion, that his patient was the subject of a pregnancy outside-the-womb: but still, so obscure were the history, symptoms, and signs of that condition, that an experienced physician considered she was suffering from ovarian tumour; whereas an eminent accoucheur expressed a decided opinion, that her affection was pelvic cellulitis or abscess.

"Shortly afterwards Dr. Greenhalgh saw this patient, and confirmed Mr. Clifton's diagnosis; and it was deemed necessary to recommend its removal by opening the abdomen, for her relief. Before proceeding, however, to such a desperate alternative, it was considered expedient first to obtain Dr. Arthur Farre's opinion as to the nature of the case. After a careful investigation of the history and symptoms, he declined to give a positive opinion as to the existence of preg-

nancy, but quite agreed to an exploratory operation.

"The abdomen was at once opened, and a living child from 6 to 7 pounds in weight was extracted from the cavity of the peritoneum; in which, between the right ovary and the fallopian tube, it had been developed."

A case, supposed to have been ovarian, is also reported by Dr. Greenhalgh in these words:

"A very cursory examination of the abdomen after delivery detected a large, somewhat irregular and solid tumour situated across the brim of the pelvis, lying chiefly to the left of the abdomen, and extending above the navel; anterior to which, and immediately above the pubes, the womb could be felt." "We were of opinion, that the growth was an unilocular ovarian tumour." "On opening the abdomen, some greenish fluid escaped from the cavity of the peritoneum, in which a child lay in its unbroken membranes across the brim of the pelvis. On opening the membranes, a considerable amount of dusky fluid escaped, revealing a child of full growth and in a perfect state."

On the other hand the case of M. A. M. (No. XVII. on page 47) which proved to be ovarian dropsy, was thought to be a pregnancy outside-the-womb.

That of E. E. (Case V.) in which an operation was undertaken on this supposition, it may be convenient again to quote.

"E. E., aged 35, noticed, 18 months ago, 1 month after her confinement, a swelling of the size of an egg in the left side of the abdomen, accompanied by morning sickness, which has continued at intervals up to the present time. 4 months after, she was seized with a fit, which left her left arm and leg benumbed. Pains like those of labour continued for 3 hours, when she gradually recovered the use of her limbs. After this, the swelling and morning sickness increased, accompanied by great pain in the lower abdomen and left side, resembling that of labour; it was increased at night. The monthly discharge appeared about three months after the fit, for the first time since the former pregnancy; it recurred regularly for three months, since which time it has been absent. During the last 6 months she has lost a great deal of flesh; the

breasts have decreased, while the swelling has increased. It had been supposed, that she was the subject of pregnancy outside-the-womb.

"At the time of examination her complexion was sallow; she suffered from severe pains in the back, and a sense of fulness at the bottom of the abdomen; occasional vomiting, and disturbed sleep. The womb was found to be much enlarged. Distinct ballottement could be felt. The pains were apparently those of approaching labour; and, as the child's heart could not be heard, it had been thought she might have a dead child in the womb. This, on its examination, was found not to be the case.

"Afterwards she had a diarrhœa, became very feverish, and vomited frequently; so that she suffered constantly from one or other; the tumour increasing in size, when the ballottement ceased to be felt. Under such circumstances it was determined that an operation should be undertaken, when half a pailful of dropsical fluid escaped; and two large, roundish, cancerous, colloid ovarian tumours were discovered."

Similar to the above case is one recorded by

Dr. Greenhalgh in the St. Bartholomew's Hospital reports.

"A patient about 28 years of age, married eight months, began to suffer shortly after marriage from menstrual irregularity and enlargement of the breasts, which manifested the usual characteristics of the pregnant condition. About four months ago her abdomen began to increase 'all over.' At the time of my visit her abdomen was uniformly distended and prominent. Fluctuation was most distinct. While examining the abdomen, very distinct movements could be detected; which, coupled with the peculiar shape of the body moved, left little or no doubt upon my mind, and upon the minds of many present, that they were the movements of a child. No bruit, or beating of a child's heart, could be detected. After a careful consideration of the history and physical signs, it was agreed that she was the subject of a pregnancy-outside-the-womb. On opening the abdomen for removal of the supposed child, there proved to be a firm, many-chambered ovarian tumour in close proximity with the diaphragm, attached above by long adhesions, and below by

a long pedicle, which permitted its free movement in a large quantity of dirty-looking dropsical fluid."

Mr. Safford Lee relates a case, in which a cyst of twenty-five years' duration was found to contain fat, hair, teeth and bones.

These examples serve to show how closely the two conditions may approximate; at the same time that they illustrate the points, by which a correct diagnosis is to be arrived at.

γ. *Fibrous Tumour in the Abdominal Cavity, but detached from its Source.*

It is only necessary to mention, that the pedunculated, or stalked fibrous tumour of the outside-of-the-womb may become detached from the womb; and give rise to such symptoms and physical signs, as belong to a tumour of that nature and condition, which have been already described.

M. Nélaton considered that the case of M. A. M. (No. XVII., on page 47), which proved to be ovarian, was either a very firm ovarian or

a fibroid tumour of the womb, but disconnected from the womb.

Such, then, are some of the conditions and complications with which ovarian dropsy may be confounded. Careful attention to detail, and experience can only lead to correct conclusions.

THE END.

INDEX.

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