Uterine hæmatocele : experience in the Royal Infirmary / by J. Matthews Duncan.

UTERINE HÆMATOCELE:

EXPERIENCE IN THE ROYAL INFIRMARY.

BY

J. MATTHEWS DUNCAN, M.D., F.R.C.P.E.,

CLINICAL LECTURER ON THE DISEASES OF WOMEN.

EDINBURGH: PRINTED BY OLIVER AND BOYD.

MDCCCLXII.

REPRINTED FROM THE EDINBURGH MEDICAL JOURNAL, NOVEMBER 1862.

UTERINE HÆMOTECELE.

It is an extraordinary and inexplicable fact, that uterine hæmatocele —a disease not of very great rarity, frequently forming tumours of enormous bulk—should have almost completely escaped the attention even of special practitioners in the diseases of women until about twelve years ago. Text-books and teachers were all silent on this important disease, till the clinical lessons of M. Nelaton on the subject were published. Now, the disease will never be forgotten. It is, indeed, easily identified; and out of several cases which I have seen, I shall in this article relate six which have come under my care in the Royal Infirmary during the last eighteen months. To the reader it will be evident that these cases have all similar symptoms; but that the physical characters are very different in different examples; so different, indeed, as to preclude the supposition that the effusion of blood has taken place in all of them in the same anatomical situation and conditions.

Although the disease is easily identified, and its general characters are well known, many important points in its pathology are still unsettled. It appears to me that the chief of these regard the difficult questions of its various origins and of its various situations. That in both of these matters there is no uniform law, but difference in different cases, I am convinced. To explain its origin, every possible source of bleeding in the neighbourhood of the affected parts has on different occasions been invoked; and many have been substantiated by post-mortem investigation. In regard to its anatomical site, two principal theories are enunciated. The first, that the blood is as a rule effused into the peritoneal cavity, is held by most continental pathologists, and has been defended at very great length by M. Bernutz, in his clinical work on the diseases of women. It has also the important support of a great majority of the recorded careful post-mortem examinations. The second theory, that the blood is effused into the cellular tissue of the higher parts of the pelvis, is entertained by several physicians in this country, but chiefly on theoretical grounds, for post-mortem observations confirmatory of this view are unfortunately few in number. It has been attempted to connect some points in the progress and history of the

disease with the anatomical relations of different portions of the pelvic fascia; but hitherto this attempt has been only in words, or in descriptions having a confused hypothesis for their basis. The question is one which morbid anatomy alone can settle, and it is to be ardently desired that autopsies bearing on this point should be recorded. I do not say autopsies only of women dying of this disease, for it may well happen that the greater fatality of the intraperitoneal form may lead to an erroneous opinion of its frequency and importance. It is natural to suppose that the extraperitoneal form of the disease should seldom cause death, and the opportunity of examining it after death be very seldom met with; but this rarity of the extraperitoneal form in autopsies is not a conclusive argument for the rarity of its occurrence when compared with that of the probably more fatal intraperitoneal affection. Pathologists must, therefore, anxiously wait for autopsies in cases of death from any cause, in women who have had uterine hæmatocele complicating the disease producing the fatal result.

That intraperitoneal hæmatocele often occurs is proved by numerous post-mortem examinations, and it is as natural to expect its occasional occurrence as it is easy to find in various sources of the hæmorrhage a satisfactory explanation of it.

The occurrence of extraperitoneal hæmatocele has been but seldom verified by post-mortem observation. But it has always appeared to me to be probably a common form of the disease. The remote analogies of cephalhæmatoma, of pulmonary, splenic, and placental apoplexies easily suggest themselves. It is more to the point to recall to mind the well-known thrombus of the vulva, and the occurrence of similar effusions beneath the walls of the vagina, which last I have several times seen in post-mortem examinations of women dying in childbed. It is, besides, ascertained that sanguineous effusions do sometimes take place between the two layers of peritoneum forming the broad ligaments, and I have, in pregnant pigs made the subject of vivisection, seen extensive effusions of the same nature in a corresponding situation. Further, it has appeared to me difficult, if not impossible, to expect the complete, or nearly complete, return of the mobility of the uterus, and of the softness of the roof of the vagina, if the effusion be intraperitoneal, the blood enclosed by adhesions of the viscera, and the disease cured by evacuation of the sac, its suppuration and gradual collapse. Pregnancy even has been prosperously completed in women who have previously suffered from uterine hæmatocele. This returning mobility and general state of health I have observed in a retro-uterine hæmatocele of great extent to be presently recorded. Again, in what I call the characteristic retro-uterine hæmatocele there is strong and far advancing pressure downwards of the effused blood, great distension apparently of the recto-vaginal septum, so close approximation of the tumour to the perineum, and so great elevation of the uterus, that it is difficult to suppose that the advancing mass is pushing the

peritoneum before it. Moreover, in large hæmatoceles, there is sometimes little tenderness; and, what is still more important, the tumour can be felt projecting upwards into the abdomen, very like the liver projecting downwards in cases of hepatic enlargement, though with a more rounded margin (as in case fourth), and manipulation detects as little feeling of adhesion of the bowels around the hæmatocele in the one case, as to the liver in the other; and, in the latter, we often ascertain that no adhesions exist.

For the final settlement of this interesting subject, we must be content to wait till the accumulation of careful observations, both before and after death, throws light upon it. A similar difficulty involves the pathology of pelvic abscess, or pelvic peritonitis; one set of observers, with M. Nonat, defending the extraperitoneal site of these indurations and abscesses; another set of observers, with M. Bernutz, defending the doctrine of their intraperitoneal situation. As in the case of hæmatocele, it is probable that truth is not confined to either side. And, again, as in the case of hæmatocele, it is desirable to be able during life to diagnose not only the inflammation or the bloody effusion, but also their anatomical relations.

In the cases to be recorded, the exciting causes of the disease, so far as could be made out, were coitus during menstruation, suppression of the menses by cold, and irregularity of the menses. In two cases in which this last exciting cause was traced, the women supposed they were pregnant, and the author was so far inclined to acquiesce, as to suspect the co-existence of extra-uterine pregnancy, and watch for any evidence in support of it that might be gained from the discharges, but nothing appeared to corroborate the supposition.

The state of the effused blood varies in different cases. In the fourth case now recorded it was felt *in situ* by the finger passed through an artificial opening, and found to be in the condition of moderately firm clot, but at the lowest part of the same tumour was collected a small quantity of bloody fluid of a syrupy consistence, and with an odour of faded leaves. In case third, the condition of the blood was certainly the same in every respect. In many cases the tumour is so small that it cannot be decided whether fluctuation is present or not; but in these two cases the abdominal tumour was large and could be handled, and no fluctuation was to be felt, and the same was true of case second, as hereafter reported. The absence of fluctuation is explained by the solid condition of the blood. In cases third and fourth a little fluid could be felt in the lower parts, which projected deeply into the vagina.

In case first, the tumour, of enormous size, presented most indistinct fluctuation when first examined, but subsequently this sign could be easily made out. The absence of fluctuation in this case may be partly explained by the great tension of the cyst, but was probably also due to the imperfectly fluid condition of the contained blood. Before this was evacuated the fluctuation had become

distinct, and, in correspondence with this change, the blood drawn off was of a syrup-like consistence, and had the peculiar odour of faded and slightly decomposing flowers. In all of the cases the blood became of a dark brown colour, and had a grumous or coffee-ground appearance, after the cyst had been open for a short time, and simultaneously it acquired an intense fetor. In none of the cases here recorded, except that of Mrs H., could any pus be detected by the naked eye. In the exceptional case, the surface of the collected fluid glistened as if with cholesterine scales, and had an iridescence, in so far as it presented at parts a shifting greenish-brown tinge. Under the microscope the fluid evacuated in every case showed abundant blood-corpuscles in every stage of destruction, still greater abundance of large, and not very uniform, pus-like cells, with occasional crystals of the forms of cholesterine and of tyrosine.

It is natural to expect, that as the blood-clots slowly break down and form a syrupy fluid, pus cells from the walls of the cyst should be freely mixed with it. In all the cases, as the blood became completely evacuated, and while the containing cyst became contracted, pus at last became evidently mixed with the grumous discharge until it supplanted it altogether. This purulent discharge, unmixed with decomposing blood, had not a fetid odour. In case third, even though the hæmatocele was very large, this purulent discharge was only of slight extent, the cyst evidently contracting closely on the gradually departing blood.

I may here remark that I have operated on cases of large peri-uterine hæmatocele, in which blood and pus were evidently commixed. But in these cases the disease was of long standing. I recall to mind one apposite and very interesting case of a lady who came under my care some years ago, whose disease had been diagnosed in London as a fibrous tumour, and in Edinburgh erroneously likewise, and from whom I drew off by Pouteau's trocar, at successive operations, nearly two pints of fetid pus mixed with old brown blood, one half being evacuated by puncturing per vaginam a tumour at the brim of the pelvis and on the right side of the os uteri, the other half by a like operation on the left side. The poor sufferer was only deprived of the deceitful swellings occupying the hypogastric regions: her painful symptoms, especially severe chronic cystitis, were but little relieved. I mention this case to illustrate the gradual change of an old hæmatocele into an abscess, or how a hæmatocele may suppurate and end in a kind of pelvic abscess. An analogous change often takes place in ecchymosis of the vulva and vagina.

I now proceed to detail six cases of this interesting disease, and I divide them into three classes: 1. Uterine; 2. Retro-uterine; 3. Peri-uterine. I attach little importance to this division, but it is founded on well-marked differences in the physical characters of the cases to be recorded.

Uterine Hæmatocele.

The following case is an example of an enormous hæmatocele, its size being proved by the amount of blood evacuated from it, besides by the physical examination. It is the only one of the six cases here related, where physical examination revealed nothing to lead me to stubbornly disbelieve its intraperitoneal site. Indeed, I think it was probably intraperitoneal. I was at one time inclined to think that its bulk strongly argued in favour of its occupying a portion of the peritoneal cavity, but the observation of a case of very large false aneurism in the brim of the pelvis and neighbouring iliac region dispelled this notion. This case was successfully treated by Mr Syme, and I witnessed the removal of the clotted contents of the sac in the course of the operation, in which the peritoneum was left intact.

Case I.—Mrs M., æt. 28, sterile, had till recently enjoyed good health. About June 1861, she had a very painful menstrual period. In the beginning of October she was menstruating, and on the second day of the flow she felt a painful coldness while sitting in the open air on a stone. On the following day she was suddenly taken with a violent indescribable abdominal pain and swooned. She remained faint and insensible for two days, and was considered to be dying. When consciousness returned she had great pain in the abdomen, and could feel in the left side of the belly a swelling, which gradually increased. Her bowels were very constipated; she had some sickness and vomiting, but no dysuria.

On her admission on the 9th November into the Royal Infirmary, she was very pale and anæmic, had a hot skin, a foul tongue, and her pulse was 130. The abdomen was greatly distended with flatulence, so that the large tumour in it could only be very indistinctly felt. This tumour occupied the left side of the belly, and extended towards the right also. The line of absolute dulness extended from above the level of the navel on the left downwards towards the right iliac region. The tumour was nearly solid, elastic, moderately tender, but the seat of much pain and feeling of distension even to bursting. Examination per vaginam revealed nothing but some fixation of the uterus, which was somewhat elevated and surrounded by unnaturally solid tissues. The size of the tumour led to its being diagnosed as an ovarian cyst, into which hæmorrhage had taken place; but its subsequent history removed any difficulty as to the nature of the case.

In the course of a few days the sign of fluctuation in the tumour became gradually perceptible, and it became apparently much larger from diminution of the flatulent distension. The woman's sufferings did not diminish. On the 15th November I tapped the abdomen in the ordinary way, about an inch and a half below the umbilicus, and drew off 115 ounces of syrupy blood, showing, under the microscope, abundant pyoid corpuscles. This was followed by almost complete relief of her sufferings and by improvement of her general condition. She continued well upon the whole, only suffering from constipation, flatulence, and occasional vomiting till early in December. At this time her former symptoms returned to a slight extent. But on the 10th of December the tapping puncture spontaneously reopened, very large quantities of bloody fluid were discharged, and she became, according to her own account, quite well. Frequent flowing discharges of many ounces of fluid continued to take place. The cyst rapidly and steadily diminished in extent, so as not to equal the bulk of a small fœtal head when last felt. The fluid discharged became gradually more and more purulent. The poor woman was so well that she could not be induced to stay in the hospital, and went away in the end of December.

The following case closely resembles the former in its physical or anatomical characters, and is classed with it. The hæmatocele was not nearly of so great size as that of the first case, and, when the belly became soft and could be handled, the facility with which the parietes could be depressed above the tumour was felt to be hostile to the supposition of its upper wall being formed of coherent intestines. This depressibility of the abdominal wall around the upper margin of the tumour was not present in the first case.

Case II.—M. T.,[1] æt. 21, was unmarried, but had cohabited with a young man for a year before her illness began. In July and August she had menstruated a week prematurely, and for some months past the discharge had been scanty. On September 1st, sexual connexion during a menstrual period caused her much pain, but she had no immediate further suffering. After this occurrence she again (September 11) had a painful and injurious coitus. On the following day she had much abdominal pain, and consulted a medical man. For two days further she was able to move about, but was afterwards confined to bed, the pain becoming aggravated. A week after the last-mentioned painful coitus, she had a new and most intense pain above the pubis and in the left iliac region, and now, for the first time, felt a swelling in that situation. She now came to Edinburgh, and was admitted on September 21 into the Royal Infirmary. She complained of great pain and tenderness in the abdomen, with frequent bilious vomiting and diarrhœa. Pulse rapid, tongue coated, skin hot. The chief seat of pain and tenderness was a hard, solid tumour, occupying the whole left iliac region, rising here and on the mesial line about an inch above the umbilicus, its upper margin sloping downwards, from a little to the right of the navel, towards the anterior inferior spine of the right ilium. The uterus was fixed, its cavity three and a half inches long, its cervix small and hard. The uterus was elevated and displaced to the left of the mesial line; and although the mass of the tumour was on the left side of the belly, the hardness, which occupied the whole posterior three-fourths of the brim of the pelvis, was most distinct and easily reached by the finger on the right side. As in the former case, there was no recto-vaginal bulging. In the anterior parts of the brim of the pelvis there was no induration; and manipulation of this region, externally and internally at once, showed that the tissues were soft and compressible. Menstruation began on the day of admission and ceased on September 25. The discharge was red and not fetid. She again began to have a menstrual-like discharge on September 28, and it lasted for four days. The discharge was bright and not fetid, and in moderate quantity. On September 28th she began to feel decidedly better in every respect, and the tumour began to decrease rapidly. On the 2d of October the upper margin of the tumour was an inch below the umbilicus, and except the somewhat tender hypogastrium, all painful symptoms had gone. She even wished to get out of bed. No bloody discharge from the tumour took place in any way. From this time the tumour went on steadily decreasing. The general health also was quite restored. On the 17th October there was resonance over the whole hypogastrium, but hardness could still be easily felt on pressing the region of the brim of the pelvis. On examination per vaginam the uterus was found in its natural situation, reduced in size, and slightly mobile, the whole remains of the bloody tumour moving consentaneously with it.

Retro-Uterine Hæmatocele.

The two cases to be related under this head so closely resemble

[1] The following notes are derived from a fuller report by Dr Ketchen, house-physician to Dr Gairdner, in whose ward the case was observed. The reports of other cases in this paper are condensed from the hospital books kept by my own clinical clerks.

one another in every respect, that they cannot but be classed together. The position of the tumour behind and below the uterus, the displacement of that organ upwards and forwards, justify the term retro-uterine. This term has been improperly applied by many authors to uterine hæmatoceles generally. All uterine hæmatoceles are not retro-uterine. The two first cases recorded in this paper are not properly retro-uterine, at least not in the sense of the tumour having the same relations to the womb as in the third and fourth cases. I was at one time disposed to ascribe the characteristic retro-uterine position to the greatness of the size of the tumour in such cases; but the study of the first case here recorded has dispelled this notion as untenable. In that case, if size or extent of effusion produced distension of the recto-vaginal space, then such distension certainly ought to have been present, for the hæmatocele was enormous and the belly was painfully distended.

Retro-uterine hæmatocele is one of the best characterized forms of the disease; and in the records of gynækology many cases are to be met with almost identical with those now to be reported. In spite of the evidence of autopsies proving intraperitoneal situation in some retro-uterine cases,[1] I have found it difficult at the bedside to adopt this view of the site of the hæmorrhage in my cases third and fourth.

Case III.—Mrs S., æt. 31, had been married seven years, and had born three children in natural labours. Her youngest child was born on November 27, 1860, and was weaned when 14 months old. She had always menstruated regularly; and in January 1861, on weaning her baby, the catamenia, as usual with her, made their appearance. In February there was no monthly discharge, and she thought she was pregnant. Again, in March no menstruation took place. In the beginning of April she was seized with violent bearing-down pain, as if of labour; it soon ceased, but after some hours returned again, and bloody discharge commenced. The pains and discharge, varying at different times, lasted for three weeks. Her strength was much reduced. In the beginning of May her medical attendant discovered a tumour in the right inguinal region, where her pain had been very great. This pain was greatly aggravated during the action of laxative medicine, but relieved after the evacuation of the bowels. In the second week of June a brown viscid discharge began to come away, affording her relief. In the end of June this discharge ceased, and a purulent leucorrhœa took its place. When the disease began she had incessant calls to urinate, and although she became better in this respect, she could not retain her urine above two hours.

She now (July 1) came under my care in the Royal Infirmary. She was anæmic, weak, and her pulse was accelerated; but in her general condition there was nothing farther remarkable.

A large tumour, solid, immovable, and of moderate or liver-like consistence, occupied the right and middle hypogastric regions. It was bilobate in its outline superiorly; the right lobe extending a little above the level of the umbilicus and occupying the right side of the belly; the other lobe, continuous with the former, feeling harder from the body of the uterus forming its anterior surface, occupying the middle hypogastric region and rising to nearly the level

[1] For example, see the case reported by Dr Madge in the Transactions of the Obstetrical Society of London for 1862. In regard to that case, I would remark that it is peculiar in the circumstance of the uterus being said to be retroverted; and, therefore, the case is not quite like my third and fourth cases.

of the umbilicus. The true pelvis was completely occupied by a recto-vaginal tumour evidently containing fluid. The finger could be pressed between this tumour and the pubic symphisis, and, on its point reaching above the symphisis, it came into contact with the os uteri, which presented no peculiarity in other respects. A probe passed into the uterus showed that that organ lay in front of the tumour, and inclined towards the right side of the mesial line, and that its cavity was enlarged to a length of nearly four inches.

On the 4th of July I punctured the tumour, per vaginam, with a Pouteau's trocar, and drew off six ounces of viscid bloody fluid. After the operation a grumous bloody fluid continued to be discharged, and the tumour in the abdomen immediately began to descend, the patient at the same time experiencing great relief. The discharge came away in large quantities when she went to stool. Twelve hours after the operation, fetor of the discharge began, and it appeared to be the cause of considerable febrile excitement. On the 11th of July the uterus again occupied its natural situation, and the length of its cavity scarcely exceeded three inches. The hypogastric tumour had disappeared, and only a hardness could be felt in the brim of the pelvis, where the tumour had been. On the 15th, external manipulation could discover nothing. The uterus, examined per vaginam, was of nearly its natural dimensions, but fixed in the midst of a hard mass occupying the brim of the pelvis, and densest at the right side. After this time the discharge gradually and soon ceased. As it disappeared, only a slight leucorrhœa supplanted it. Menstruation soon returned and recurred naturally; but it was not till after the lapse of six months that the uterus became mobile, and the parts adjoining the roof of the vagina soft and easily displaced by the examining finger.

Case IV.—Mrs R., æt. 25, had been married seven and a-half years, had enjoyed good health, and menstruated regularly. Six months after marriage she had a miscarriage, but had not been again pregnant, although, when this disease began, she thought herself in that condition, and supposed she had an abortion on the 30th of December 1861. But of this opinion she had no satisfactory evidence.

She menstruated in the beginning of October 1861 for the last time, and thereafter had all the symptoms of pregnancy which she had experienced on a former occasion. In November she began to have pains in the belly, costiveness, and pain and difficulty in making water. In December she had much cramp-like pain in the stomach, and frequent vomiting. In the end of the same month she had for several days a copious white discharge. On the 30th she supposed she had a miscarriage; and then a supposed lochial bloody discharge began, and continued for three weeks. Six days after the supposed miscarriage, she got up, and a pain, or dull soreness, in her left inguinal region, which had existed since the miscarriage, became, on the same evening, greatly aggravated. Presently a tumour appeared in the same situation, and had attained a large size before the middle of January 1862; but about that time great flatulent distension came on, and prevented any one from feeling its limits. The pain and difficulty in urination had disappeared gradually.

She was now admitted into the Royal Infirmary, under the care of Dr Warburton Begbie. Means were successfully used to remove the flatulent distension; and, the general nature of the case thereby becoming evident, Dr Begbie had her transferred to my ward.

Examination on the 30th January 1862 revealed the following conditions:—The entire lower belly was occupied by a solid immovable tumour, larger and more prominent on the left than on the right side, rising at either side an inch above the anterior superior spine of the ilium, and in the middle to near the level of the umbilicus. The tumour felt like the liver: its upper margin was rounded, and could be plainly felt, the wall of the belly being easily depressible, —the impression to the observer being quite hostile to the idea of the bowels being coherent and forming the wall of the tumour. The tenderness was not considerable. On examination per vaginam the finger discovered conditions

identical with those described in the preceding case; only the projecting tumour was less globular and more diffused. The uterine cavity was 3¼ inches long, and this organ lay in front of the tumour, and to the right of the mesial line.

She had an extremely bloodless appearance, much undefined suffering in the belly, and was very weak, but no remarkable constitutional symptoms were present.

On 31st January I made, with a guarded bistoury, an incision almost an inch in length in the vaginal tumour, and a few ounces of viscid bloody fluid escaped. The finger passed through the artificial opening detected the repletion of the tumour with soft blood-clots. A probe passed through the same aperture could easily be made to reach any part of the tumour; and its point could be felt through the abdominal parietes.

The discharge soon became extremely fetid, and came away in very large quantities, the woman at the same time experiencing great local relief. Considerable fever with nocturnal delirium came on, and was attributed to putrid infection by the discharges. The greatest cleanliness was maintained, and warm chlorine lotions were abundantly used. The vagina became very hot and tender, and the belly also very sensitive on pressure. But, on the 6th February, her alarming constitutional symptoms began rapidly to disappear: the discharge had become much less in quantity, and the abdominal tumour could only just be felt above the pubis. Before the 15th blood had entirely disappeared from the discharge, and along with it the fetor; but a copious flow of laudable pus took its place. On the 20th of February the tumour was found to have disappeared; only the uterus was fixed, and the surrounding tissues were indurated. She now had an attack of irritable bladder, which was removed under the use of appropriate remedies. It was not till the beginning of April that the purulent discharge ceased. She was thereafter soon dismissed, feeling quite well. Only, examination per vaginam showed that there persisted an indurated state of the tissues around the uterus, itself now of natural dimensions.

Peri-Uterine Hæmatocele.

In the two following cases the tumour was comparatively small, and did not, in anatomical relations, resemble the tumour in either of the two preceding sets of cases. I must, however, admit that I am not convinced that the physical characters of these two cases demand their separation from the uterine and retro-uterine kinds. It is quite possible that, if the bulk of the tumour had increased, it would have assumed the condition either of a uterine or of a retro-uterine hæmatocele. But, as I cannot dare to guess what might have been its history under these circumstances, I retain it in a class apart. The name, peri-uterine, is appropriate to these cases, on account of their resemblance in situation and relations to the common peri-uterine inflammatory indurations, or the indurations produced by pelvic peritonitis. It is important to remark that the fifth case proves an interesting clinical fact, namely, that severity of symptoms is not in direct relation to amount of effusion. Although the hæmatocele was small in Mrs H., the symptoms were very urgent. In this case the discharge of fetid gas from the sac is a curious observation.

Case V.—Mrs H., æt. 35, had had several children. Her last pregnancy terminated in abortion at the third month, about two years ago. She was at first a patient in a ward of Dr Gairdner's, but was subsequently transferred to mine.

She had been in bad health for many months, had menstruated too frequently, and suffered feelings of weakness and occasionally of pain in the hypogastrium. For three months before admission she had not menstruated at all, and she had never previously been irregular in this respect. Since the menses ceased, she had observed a slight leucorrhœa, occasionally tinged with blood, but never fetid. About the middle of April 1862 she was suddenly taken with severe pains in the left hypogastric region, followed by swelling and hardness of the lower belly, also by intensely severe bearing-down pains across the sacrum, which continued in a moderated degree till her admission into the Infirmary on the 29th of April. Since the middle of April she has several times required to have her water drawn off by the catheter.

She was exhausted, pallid, and anæmic on admission, and, besides the symptoms just mentioned, complained of pain in defecation, the bowels being very costive. She had pain on pressure in the left hypogastric region, but nothing could be felt by the hand applied externally. She occasionally shivered, and frequently perspired profusely, and had occasional attacks of vomiting. On 3d May she had a very severe attack of sacral pain, and the left hypogastric region became very tender. I was asked to see her, and found a considerable hard swelling on the left and posterior side of the brim of the pelvis, fixing the uterus, and displacing it a little forwards and to the right side. The swelling had very little thickness, measuring from above downwards. It was diagnosed as a pelvic peritonitis, in which effusion of pus would probably soon take place. She menstruated in the middle of May, the flow lasting for three days. Thereafter a purulent discharge began, which lasted for about fourteen days. On 24th May considerable increase of thickness of the tumour was discovered, and it was easily felt by the hand applied externally. It was punctured by a trocar and canula, and only a little discharge came away through the latter; but very soon after its removal, a gush of brown bloody fluid was passed. On the following day the tumour could not be felt by the hand applied externally, and the patient expressed herself as very greatly relieved. The bloody discharge ceased after two days. After four days it again recommenced. But in spite of this fetid bloody discharge coming away not scantily, the symptoms gradually became again aggravated, and the tumour again increased in bulk. On 14th June I again inserted Pouteau's trocar and canula into the tumour, and drew off eight ounces of fetid bloody fluid, closely resembling the discharge. Some fetid gas also escaped through the canula. After this operation the grumous bloody discharge lasted for only four days. The woman now expressed herself as quite recovered, began to go about the ward, and was dismissed cured in the middle of July. An examination per vaginam, made before her departure, revealed the existence only of a little induration in the site of the former tumour.

Case VI.—Mrs M., æt. 33, sterile, has always menstruated regularly and profusely. On 2d May 1862 the monthly period began as usual, but, while she was engaged at a washing on the next day, the discharge ceased. In the evening of this day she felt ill, and had much pain in the belly, especially in the left side, which was swollen. The pain grew worse and worse, till she came to the hospital on 27th May.

On admission, the belly is distended, and there is tenderness on pressure in the lower part of the left side, but nothing abnormal can be felt. Her bowels are constipated, but she has no dysuria. Examination per vaginam reveals the uterus fixed in its natural position by a hard tender swelling high in the pelvis, and lying between the womb and rectum, and on the left of the mesial line. Laxative medicines were prescribed. On 3d June she passed a quantity of blood per rectum, on two occasions. It was at first red, and afterwards brownish. On two or three subsequent days only small quantities of the same were observed in the evacuations. On the 7th June she began to menstruate profusely, and had much uterine pain. The flow lasted for six days. After it ceased, she suffered no further pain; and examination per vaginam made out

only a thickening and induration of the tissues in the former site of the bloody tumour, and restored mobility of the uterus.

The remark of Dr West, that most examples of uterine hæmatocele are connected with some derangement of menstruation, is amply confirmed by the histories of the preceding cases. The most cursory perusal of these reports also shows that the disease may be described as sudden in its supervention, that it produces great agony and often cramplike pain in the stomach, bearing-down pain, and irritation of the bladder; that there is great tenderness in the seat of the effusion, and that the belly generally becomes more or less distended with flatulence. Besides these symptoms, vomiting, generally of bilious character, and constipation are frequent occurrences. In case second, diarrhœa was present. It is natural to expect, as is always observed, that an anæmic condition should be produced when the extravasated blood is large in amount; but besides anæmia, and more or less severe feverish excitement, there is generally no farther peculiar constitutional disturbance.

The disease may be mistaken for ovarian dropsy, fibrous tumour, pelvic inflammatory induration or abscess, pelvic peritonitis, uterine and extra-uterine pregnancy, and retroversion of the gravid uterus. I shall not enter into the details of its diagnosis from these various diseases. Most of them will suggest themselves to any person ordinarily intelligent in the diseases of women. I may, however, remark, that the history, if well made out, offers great assistance in this matter. But even when the history is pretty distinct, it will be often impossible, particularly when the tumour is small, to make a satisfactory diagnosis from pelvic inflammatory induration or abscess, from pelvic peritonitis, and from extra-uterine pregnancy; and fortunately the diagnosis from these diseases is not of very great importance, so far as the practice to be employed is concerned. I would particularly remark that elongation of the uterus is given by Dr West as a diagnostic indication of extra-uterine pregnancy, and that this statement appears to me to require to be carefully guarded. No doubt, in extra-uterine pregnancy the uterine cavity will be elongated; but, on the other hand, in the cases recorded above, the uterus was found greatly elongated in every instance where the hæmatocele was large, and in all it contracted with the contraction of the blood sac. In all, this elongation co-existed with a cervix uteri, having none of the conditions of the cervix in pregnancy. In all, a careful examination of the case led to the belief that no form of pregnancy existed; and although in some there was room for suspicion of the existence of pregnancy, in others there was none.

The general treatment of the various distressing symptoms of this disease requires no special remark in this place. I shall only consider briefly the surgical treatment of the tumour. On this subject there is a great divergence of opinions, some believing that it is best, in all cases, to abstain from interfering with the hæmato-

cele; others advising its being incised or punctured, with a view to its evacuation, at least in some cases. In the sixth case recorded here, the tumour was spontaneously evacuated per rectum, and the occasional occurrence of this termination renders it quite unnecessary in such cases to resort to any surgical interference. In other cases, as in the second here given, the bloody effusion is rapidly absorbed, and the surgeon is happy not to have his skill in operating put to the test. In other cases, as in the second of those here reported, the surgeon may, even if he wished to operate, find no safe access to the tumour: he may find both the vaginal and abdominal aspects of the tumour presenting characters which lead him to estimate highly the danger of operating, and to judge it more prudent to use what is called an expectant treatment. On the vaginal aspect the tumour may be too high, or present too little resistance to the examining finger. On the abdominal aspect he may, in tumours supposed to be extraperitoneal, fear lest he perforate the peritoneum if the tumour is not very large.

But, after all these considerations, I feel sure that it is often good practice to open the sac, and that, in many cases, it is the only good practice. In four of the cases recorded above I have every reason to congratulate myself on the interference resorted to. In all four it gave almost immediate, partial, and gradually increasing relief to the sufferers. In the first case there appeared every reason to expect bursting of the sac and diffusion of the fluid over the whole peritoneum, an accident which has often occurred, and which the opening of the sac tended to avert. In the third and fourth cases the tumour would, judging from the condition of the syruplike blood in the rectovaginal swellings, almost certainly have soon burst spontaneously into the vagina or rectum; and in these cases the operation certainly shortened the patients' sufferings, husbanded their strength, and contributed to their early recovery, and to their safety from the danger of death. In the fifth case the severity of the symptoms and the great slowness of the progress of the case seemed to me urgently to demand the use of any means likely to assuage suffering and remove the disease. And it must be remembered that a case such as the fifth may last for an indefinite length of time. In the case from London, to which, in a former part of this paper I have already referred, the disease had continued for more than a year, and there were no signs whatever of these large tumours offering to point in any direction.

The fifth case affords a good illustration of the necessity of a free opening in some cases. In it the tumour was increasing, while it was at the same time discharging. It was not only increasing in bulk, but fetid noxious gas was being evolved within it by decomposition of its contents. In this disease, as in pelvic abscess, the existence of an opening in the sac, and the passage of discharge constantly, afford no absolute security against the increase of the tumour, or against its bursting in a new direction. A free opening

for discharge may certainly prevent increase of the size of the tumour, but its freeness will not prevent the contents of the sac penetrating even in more than one new direction, a circumstance of which clinical observation has convinced me.

The first case affords an example of opening the tumour by the ordinary paracentesis abdominis. In it and in case second, this mode of access to the sac was easier and more direct than that per vaginam. In the retro-uterine cases the tumour was opened per vaginam, and in all such cases no other method of operating should be resorted to. A trocar or a guarded bistoury may be used, the operator being careful to wound only in the mesial line, and to avoid injuring any vessel he may feel pulsating. It has been recommended in cases of this description to pass the finger through the artificial opening, in order to break down clots and imaginary dissepiments; but such a proceeding is not possible, and were it possible it would not be advisable. In cases that are not retro-uterine, and on which operation per vaginam is decided upon, the surgeon should choose for incision or puncture the most prominent part, always taking care to avoid any vessel that can be felt, and not to injure the bladder or rectum.

Rapid absorption of the effused blood (as happened in case second) is undoubtedly the most desirable termination of a hæmatocele. But it does not often occur when the extravasation is large, and I cannot assign any reason why the histories of hæmatoceles should in this respect be so widely different. Only it appears to me that the difference probably depends greatly on the condition of the extravasated blood. If it becomes dissolved and syruplike, I believe it becomes always mixed with pus, and is almost sure to be discharged and not absorbed. If it remains in the form of clot, it may be absorbed. In case second this persistence in the coagulated condition was rendered probable by the entire absence of fluctuation during its gradual diminution in bulk. The change into the tarry or syrupy condition is probably greatly dependent on the presence of inflammation of the sac, and secretion of pus. Mere bulk is not a sign of necessity for spontaneous or artificial evacuation, as the history of case second shows. But there can be little doubt that in large hæmatoceles absorption is less likely to occur than in smaller tumours. If these remarks have a good foundation, then, in cases where fluctuation can be anywhere felt, or where the dissolution of even a part of the effused blood has taken place, the question, whether evacuation of the contents of the sac will take place or not, has not to be decided: it will assuredly occur, and the surgeon has only to determine whether he will leave the case to nature or interfere, to hasten or direct the progress of the disease.

PRINTED BY OLIVER AND BOYD, TWEEDDALE COURT, EDINBURGH.