

Baer (B. F.)

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CLINICAL LECTURE.

DYSMENORRHŒA FROM HÆMATOMA OF THE OVARY—DOUBLE
DERMOID CYST OF THE OVARY—TWO CASES OF FIBRO-
SARCOMA OF THE OVARY—REMARKS ON DRAIN-
AGE AND THE AFTER-TREATMENT IN
LAPAROTOMY.*

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Gentlemen:—While our patient is being prepared and etherized, I will show you several tumors which I have removed within a short time. This will be the more interesting and instructive because I fear that our case to-day may prove to be of somewhat similar nature to one of the cases I shall relate.

I have in this bottle a small tumor which is an ovary enlarged to about three times its natural size. On the same day on which this tumor was removed, I removed from another patient this tumor, which you see is large, solid and formidable looking; it weighs 15 pounds. Yet the patient with the smaller tumor suffered far more than the latter. This disproportion between the size of the tumor and the amount of suffering is one of the interesting and important circumstances met with in ovarian disease, and teaches the valuable lesson that the patient who happens to have a small tumor should not for that reason be condemned to a life-time of torture, when we know that her disease is as certainly incurable without operation as is that of the patient whose tumor happens to be large.

The patient from whom the small specimen was removed is 31 years of age, and had one child nine or ten years ago. Since that time she has been sterile. So far, therefore, as fertility is concerned, her ovarian function has been useless. Puberty occurred at the age of 13, and menstruation had been constantly attended with pain in the left ovarian region. For this she had been treated in various ways and by different methods, but without result so far as cure was concerned. Dysmenorrhœa is so often spoken of as resulting from one cause only, stenosis of the cervical canal or ante flexion of the

*Delivered at the Hospital of the Philadelphia Polyclinic.

presented by the author

uterus, and as, therefore, amenable to but one plan of treatment, by dilatation, that I can say nothing more important to you than to ask you to free your minds from this idea. The term should be used in its generic sense only, as expressing a symptom for which there are many causes, both general and local.

The patient had been worse since the birth of her child, and recently was almost constantly bid-ridden from pain and exhaustion; she could obtain relief only by the use of morphia, to which she had become addicted. Two years ago she was treated for retroflexion of the uterus to which was ascribed all of her sufferings. I believe this was an error; the symptoms were not due to the displacement, but to a diseased left ovary. The trouble was doubtless aggravated by the complication, but the mechanical means used (in the form of a large pessary) for the retention of the organ, served only to increase the symptoms. As was to be expected the patient became worse. The diagnosis was wrong and the treatment necessarily at fault.

When she entered my private hospital she was emaciated and exhausted, and complained of constant pain in the left ovarian region. Upon examination I at once detected a tumor to the left of the uterus and posterior to the broad ligament, which I knew to be an enlarged ovary. It had the peculiar shape of the ovary, only somewhat more rounded, and it was excessively tender on pressure, and mobile. As the patient approached her menstrual periods the tumor became larger and more tender, from congestion of the ovarian vessels and the hæmorrhage into the Graffian follicle, which occurs during the ovulation excitement. Excruciating pain resulted from the swelling and distention, and was described by the patient as resembling the sensation which might be produced if the ovary were within the grasp of a vise. There was also a sense of numbness extending all over the affected side, from the ovarian centre upwards to the præcordial region, even extending to the side of the face and head, and downwards along the line of the genito-crural nerve and its inoculations, to the labia majora, inside of the thigh and to the foot, producing such lameness as to render walking extremely difficult and painful at times. These symptoms and physical signs pointed conclusively to the condition known as hæmatoma of the ovary. As indicated above the tumor results from an undue amount of hæmorrhage into the Graffian follicle and retention of the blood from failure of the outer covering of the ovary to rupture, and dis-

charge its contents into the Fallopian tube to pass off as menstrual hæmorrhage, as is the case when the function of ovulation and menstruation is normally performed. Nature now attempts to repair the damage by bringing about an involution of the hæmatoma, as she does when a normal corpus luteum is formed; but she often fails, and the clot then remains as a small dark body. In some cases the ovary is completely riddled with these masses which, becoming hard, press upon the nerves, and thus add to the patient's suffering and serve to render constant the pain which at first was only present at the menstrual periods.

This disease is incurable except by removal of the affected organ and I at once advised operation. An incision an inch and a half in length, through a rather fat abdominal wall, was sufficient to permit me to complete the operation. Upon bringing the ovary up, I found as I had expected, the condition here exhibited in the specimen. There was one large hæmatoma the size of a walnut, which is still unruptured, and at least four or five smaller ones in varying stages of subinvolution. At the same time I brought the uterus forward by shortening the round ligament on the left side. The process of shortening was accomplished by doubling the ligament upon itself and including it in the ligature which I used in ligating the pedicle. At the patient's request I removed but one ovary, the other being comparatively normal.

I have met with a good many cases of hæmatoma of the ovary, and have employed various methods for the relief of the patients, but I am more than ever convinced that the proper treatment is the removal of the organ. This operation is attended with but little risk when done properly.

DOUBLE DERMOID CYST OF THE OVARY.

Two days preceding the operation for the hæmatoma I removed these specimens. The patient was 32 years old; she had one child seven years of age and a second four months ago. Two years ago she began to complain of pain in the right ovarian region, which had continued ever since with increasing severity. She had become pregnant, however, and had given birth to a strong, healthy child after a normal labor. Soon after the parturition she left the city, but as she was rapidly losing flesh she returned, and then I saw her. On examination I found the abdominal wall extremely emaciated and quite relaxed, and through it I could detect a jagged mass, very irregular, lobulated, and flattened in shape, and at one point quite

tender on pressure. It was very mobile and as large as a child's head. I also found a tumor in the lower pelvis, fully as large as the one in the abdominal cavity. The uterus was pushed up and to the right. The pelvic tumor was immovably fixed but not tender.

I expressed the belief that the pelvic tumor was an incarcerated ovarian cyst, but I was not certain as to the one occupying the abdominal cavity. Its irregular, flattened, lobulated shape and non-fluctuating character, together with its extreme mobility and the rapid emaciation of the patient, led me to fear that it might be a malignant growth, possibly of the kidney, although the urine did not show any evidence of disease of the latter organ. I advised that the child, which the patient was nursing, should be immediately weaned, and that laparotomy be performed as soon as the breasts had dried up.

The operation was performed at the home of the patient. After she was anaesthetized and lying upon the table, the abdominal walls lay flat and relaxed about the tumor in such a manner as to make it look exceedingly malignant in its roughness and irregularity. An incision two inches in length was made midway between the umbilicus and the pubis, and the tumor exposed to view. To my delight I detected the peculiar color of an ovarian cyst. Introducing two fingers, I found it to be free from adhesions except at the point corresponding to the tenderness, but I could not at first find that it had a pelvic attachment, being apparently free in the abdominal cavity. After examining very closely for a pedicle, I discovered what seemed to be the broad ligament and Fallopian tube stretched and flattened out against the posterior surface of the superior strait, being held in this position by the pelvic tumor. Placing my finger under this apparent pedicle, I was able to trace it to the tumor, and bringing it to the incision made myself sure that it was the Fallopian tube and broad ligament. I now punctured the tumor with a trocar, although it appeared to be almost solid, when there began to flow the peculiar oily substance which is characteristic of dermoid cysts. After more than a pint of this semi-fluid substance had been evacuated the trocar was withdrawn, when the puncture was immediately filled and plugged by a mass of hair. Although the tumor was still quite large, I was able, by manipulation and some force, to withdraw it through the small incision. The pedicle was exceedingly vascular, the veins in the broad ligament being as large as my finger. After ligating the pedicle and separating the tumor, which was

of the left ovary, the one in the pelvis was with great difficulty dislodged and brought up to the incision, when it was also punctured. Fluid, in quantity and character similar to that described above, flowed out, when the tumor slipped through the incision. A pedicle of like character as to vascularity and length was ligated and severed. The abdomen was now thoroughly cleansed and the incision closed, neither irrigation nor drainage being used.

The after history was without event, except in a decided evidence of heart failure on the second day. This was controlled by active stimulation kept up during the night. She sat up on the eighteenth day after the operation, and is rapidly regaining her lost weight and strength.

This case has an added interest, apart from the mere presence and removal of the double dermoid disease, in the gestation and parturition during the existence of the tumors. It not only shows the wonderful struggle and persistence of the procreating function, but also furnishes food for thought as to what should be done with these tumors when they are found to complicate pregnancy. There is a growing disposition to operate early in gestation when pregnancy is found to be complicated by ovarian tumor. This individual case went to full term and was safely delivered, but that does not prove that the rule is not a good one.

FIBRO-SARCOMA OF THE OVARY.

The next specimen is of peculiar interest to us, because I believe the case I shall operate upon to-day is of like character. The patient from whom this large, solid tumor was removed from is 39 years old, and had one child 16 years ago. Nine years ago she was operated upon for laceration of the cervix uteri. The account given me by her physician was as follows:

Supposing herself to be pregnant, she engaged the physician for the approaching labor, which, however, did not come on at the expected time. When a month beyond the appointed time had passed, her physician called upon her and found her still waiting for the commencement of the labor, presenting the appearance of a woman at full term, ruddy and healthy looking. She said she could feel the active movements of the child. Another month passed, and then suspecting something wrong the physician questioned her more carefully, and found that she had been menstruating regularly, and that there had not been any mammary changes or other rational

signs of pregnancy, excepting the abdominal enlargement and the supposed fetal movements. Examination showed that the cervix was hard, and that the pelvis was occupied by a mass closely resembling the head of a child. The tumor could be felt high up in the abdomen. The doctor therefore properly excluded gestation.

Shortly after this I first saw the patient, and examination informed me that the womb was retroverted and somewhat prolapsed, but movable. When the tumor was moved the womb moved also, which is one of the diagnostic signs of uterine fibroid, or at least that the growth is uterine, and yet from the position of the tumor I believed it was external to, and not connected with the womb. I could not detect any fluctuation. The tumor was smooth and entirely mobile. It was with difficulty I convinced the patient that she was not pregnant. She was positive that she could feel the fetal movements. This was due probably to the mobile condition of the growth, which moved to accommodate itself to the movements of the intestines; and then the imagination furnished the rest. I made a diagnosis of probable sarcoma of the ovary and advised its removal. A fibroid tumor of the womb would not have attained such size in nine months or a year, a point which aided me not a little in my diagnosis. After a few weeks of hesitation and doubt on the part of the patient, she consented to the operation, and it was performed at her home.

When I reached the growth, I found it to be so extremely vascular that I believed I had to deal with a fibroid tumor of the womb. I was compelled to make a seven inch incision before I could get the tumor out of the abdomen, and not till then did I learn that the womb was below and independent of the growth. It had no relation whatever with the uterus, except through the ovarian and broad ligaments. These I now clamped and then cut the tumor away, leaving a very large pedicle. I next transixed and ligated the pedicle and removed the clamps. After cleansing the abdominal cavity the incision was closed without drainage. As the other ovary was healthy I did not remove it. The stitches were removed on the seventh day and she made a good recovery. The tumor weighed fifteen pounds.

FIBRO-SARCOMA OF THE OVARY.

Our patient being now about ready for operation, I will give you a brief history of the case before beginning. She is a single woman, 30 years of age; she entered puberty at 18; the menstrual

function has always been performed with difficulty, but otherwise she enjoyed good health until about a year ago. At that time she discovered a lump about the size of her fist in the left iliac region, and she remembers that it was hard and quite mobile. She says she could move it to either side and up and down, as though it were loose in her abdomen. From this time the mass increased rapidly in size. Six months ago she had an attack of la grippe, and this was accompanied with great soreness all over the abdomen extending around to the lumbo-sacral regions. Since this illness she has been going down hill rapidly, and the abdomen as you see, has increased to the size of the full term of gestation; she has become emaciated and is quite cachectic in appearance. She suffers considerable pain in the lumbo-sacral regions, and has great irritability of the bladder. There is also some œdema of the feet and legs. Her catamenia are regular in time and quantity. As you observe, the abdomen is symmetrical and smooth in contour. On palpation a round, firm mass of the size and somewhat the shape of the pregnant uterus at full term is outlined. This mass is not movable within the abdominal cavity, but seems to be firmly adherent to the abdominal walls. The veins are distended and there is a purplish hue of the surface, showing a decided interference with the circulation. There is only a faint suspicion of fluctuation. There is dullness all over the anterior surface of the abdomen with resonance in the line of the colon. Per vaginam, yesterday, the uterus was found to be slightly above the normal in size and seemed to be free from the tumor. It occupies a position below and to the right of the mass. The diagnosis as to the exact character of this growth is obscure, but I believe it to be ovarian, and hope it may prove to be a thick-walled cyst, for I know it is not thin-walled. I fear, however, that it may be a solid tumor of the ovary. Its very rapid development, peculiar conformation, and its relation to the uterus, together with the marked effect it has had on the patient's health, render it almost certain that it is not a uterine fibroid. But, whatever it is the indications are clear for its removal.

I now begin by making an incision two inches in length and expose the tumor to view. I am sorry to say that it has the peculiar purplish color and vascularity common to fibroid tumor of the uterus; but it is firmly adherent to the abdominal wall, and this causes me to hope that it may still prove to be ovarian, for fibroids of the womb, as a rule are not adherent to the abdominal wall. It

will be necessary to increase the length of the incision, so that I may safely separate adhesions and introduce my hand to learn if possible where it is attached. I am glad to say that I can trace its pedicle, which is small, to the region of the left ovary, but I also learn that it is universally adherent to the peritoneal surface and that there are a number of strong intestinal and omental adhesions. I begin the separation of the adhesions by tying off the omentum, when I find that it will be necessary to still further increase the length of the incision to fully six inches. Now you can see how extensive and firm the intestinal attachments are, and what care will be necessary in their separation. As I proceed with the dissection I find it necessary to leave a portion of the outer wall of the tumor in contact with the intestine, for fear of tearing the latter. This results in so much hæmorrhage that I am compelled to ligate on the surface of the bowel as we advance. There is considerable hæmorrhage from the torn surface of the tumor, and it will be impossible to check this because of the broad surface denuded, and the impossibility of ligating on the solid mass. With the hope that the tumor is not entirely solid, and that I may reduce its size and thus facilitate the separation of the adhesions and check the bleeding, I will now plunge a trocar into it. But you see this was a mistake, for the tumor proves to be solid and we are compelled to proceed as we were doing at first. This large surface which I have just now separated is bleeding so profusely because I have wounded the muscular wall of the intestine; it is necessary to double it upon itself and ligate it, and this makes a decided knuckle; even this does not stop the bleeding. I will therefore pass a ligature in a needle and ligate it in the form of a suture. This controls the bleeding and will also serve to unite the torn muscular coat. I now continue the separation and ligation from point to point until we have the tumor entirely free except an attachment to the colon which I next separate, placing here several ligatures. I will now lift the tumor from the abdominal cavity, and am glad to say the pedicle is small and that the tumor is of the ovary. I next quickly grasp the pedicle with a clamp forceps, and cut the tumor away, placing a warm towel immediately over the intestines, while an assistant closes the incision by placing a hand on either side. Before ligating the pedicle I will look carefully for bleeding points that may have been missed, and I find it necessary to place several additional sutures along the line of the intestine. I next transfix the

broad ligament with this pointed forceps which has in its grasp a *single* ligature, with which I tie, first towards the uterus, and then towards the outer surface of the ligament, bringing it back again to the point first tied, making three knots. Removing now the clamp forceps, I find the bleeding entirely controlled. I therefore cut the ends of the ligature close to the knot and drop the pedicle. The right ovary is in a healthy condition and I will therefore not remove it, since the patient requested me to leave it if not diseased, although in view of the character of the tumor I believe it would be wise to remove it. You observe that the patient is very weak, being pulseless at the wrist, and I will ask a nurse to administer a stimulating enema, which I always have in readiness, while I make the toilette of the peritoneum and finish the operation as rapidly as possible. But I will first place the sutures for the closure of the incision. These are of Chinese silk, as all my ligatures are, and I carry the needle from without inwards, including the peritoneum and then from within outwards on the opposite side, about three to the inch, until they are all placed. Now carefully removing all clots and fluid and being sure that no bleeding is taking place, I close the abdomen without irrigation or drainage. The dressing will consist of first dusting the line of incision with aristol as a desiccant, covering it with a strip of sterilized gauze and a thick pad of cotton which is surrounded with sterilized gauze, all of which are strapped firmly with adhesive plaster. The patient is now returned to bed, a bag of hot water placed to her feet and a hypodermic injection of morphia and atropia at once administered.

REMARKS ON DRAINAGE, AND THE AFTER-TREATMENT
IN LAPAROTOMY.

I think you will agree with me that this was a formidable operation, and that the outlook for the recovery of the patient, in view of the extensive ligation along the line of the intestinal track, is anything but favorable. But we have done our best and must trust the result, not alone to kind nature, but to vigilance and care in the after-treatment. One of the gentlemen has just asked me why I did not irrigate and drain in this case? This, therefore, is a very appropriate place for a few words on the technique of the operation and the after management. You observed that I was careful to remove all foreign material from the abdominal cavity, and, as I succeeded in doing so, I believe that irrigation would have been an unnecessary and meddlesome procedure. On precisely the same principle, I did

not drain. As there was nothing to drain it would have been unscientific and meddlesome practice to have placed a drainage tube. Now, it is self-evident that if the patient recovers as well without it, drainage was unnecessary, and that she was therefore better off than if I had left a drainage tube projecting into the abdominal cavity, to serve as a certain means of irritation and a possible source of infection and fistula, to say nothing of a predisposition to hernia by weakening the lower end of the cicatrix. Some time ago, while I was operating for the removal of several fibroid tumors, I was honored with the presence of a prominent surgeon who has had a large experience in abdominal work. Considerable hæmorrhage occurred. When I was ready to close the incision and he found I was doing so without irrigation or drainage, he remarked that he could not resist the criticism that I was taking great risk and that he would not himself have the courage to close the wound without first flushing the abdominal cavity and inserting a drainage tube. I replied that I would have more fear of a drainage tube in a case where I considered it unnecessary, than in closing the wound without it; that I felt confident my patient was better without the tube. My friend said he would watch the case with great trepidation, and if she did well it would be a revelation to him. I am glad to say the patient recovered without a bad symptom. Some of you recall the case.

Greig Smith, in his classical work on Abdominal Surgery, has advanced the proposition, "When in doubt, drain," and this has become an axiom for operators. Some abdominal surgeons apply drainage in almost every case. But I believe the time is not far off when the technique of abdominal work will have been so perfected that the use of the drainage tube will be the exception instead of the rule. (I am now speaking of cases in which extensive peritoneal and cellular suppuration is not present.) I have added two words to Smith's dictum so that it reads for me, "When in doubt, *do not* drain." This is the principle upon which I have been working for several years and I am convinced of its soundness. If I use a drainage tube I must feel sure that it is necessary; if I am in doubt I do not drain. This method is not founded upon theory alone, for I have demonstrated beyond question that the practice is correct. I have now reached the ninety-sixth of my last series of one hundred completed ovariectomies. Of these ninety-six cases there has not been a death from the operation, and I have used a drainage tube only in three, and they were early in the series. In many of the

cases adhesions were universal and organized, and some were pus cases. The patients recovered more quickly and are better in every way than those of the series immediately preceding this one, in which I used the drainage tube more frequently. But more of this again.

Regarding the after-treatment. The patient has already had one hypodermic injection of morphia and atropia, and this will be repeated if necessary during the afternoon or night; and if required will be repeated again, especially if she is emotional or there is a tendency to vomiting. Of the series just referred to I do not believe there have been six cases that have not had one or more hypodermics during the after-treatment, and I have nothing but good to say of the practice. The diet will be liberal and will be commenced at once in the form of stimulating enemata. It will consist of half an ounce of whiskey and six ounces of warm water through a fountain syringe, every four hours, until to-morrow at 4 A. M. She will then get barley water by the mouth in teaspoonful doses every hour. If this is well borne, after several doses have been taken, beef juice in similar quantity will be substituted. I do not mean beef tea, but beef juice which is obtained by pressing fresh beef after it has been broiled slightly on one side. If the digestion proves good, the beef juice will be increased to a tablespoonful every two hours, and the patient may then have barley water or plain water *ad libitum*. When feeding by the mouth begins, the enemata are discontinued. When flatus has passed per anus, which usually occurs within forty-eight hours, if the patient is hungry she will get a small cup of tea or coffee with soft toast and probably a soft egg. I rarely give milk in any form, never until the bowels have moved. Since I have discontinued the use of milk and do not use the drainage tube, I have no occasion to treat tympanites. If the bowels do not move spontaneously within three days, a Lady-Webster pill or Epsom salts will be administered as a laxative. The patient will be turned on her side within twenty-four hours, and earlier if she desires. The custom of compelling the patient who has undergone laparotomy to remain in the dorsal position is a barbarous one. It is not only unnecessary but positively injurious. Two of the most important factors in the after-treatment of these cases are stimulation of intestinal peristalsis, and rest of body. By compelling the patient to occupy the dorsal position, this order is reversed, the result being arrest of intestinal peristalsis and physical exhaustion from the constant and strained

position. I believe the practice has contributed not a little to the mortality, and am sure it has caused a great amount of unnecessary suffering.

Examination of the specimen shows the Fallopian tube and some large vessels spread out over the tumor. On section it is found to be quite solid and fibrous in appearance, except at one point where a small cavity is seen. This contains a semi-fluid, yellowish substance which somewhat resembles the fluid found in fibro-cysts of the uterus. Placing this tumor by the side of the other solid one shown you just before the operation, we see how much alike they are in size, shape and consistency. Although they have not yet been examined microscopically, I think they are fibro-sarcomas. Solid tumor of the ovary, of the size of these growths, is very rarely met with, and, although these tumors look very like true fibroids, I think it will be shown that they contain sarcomatous elements.

In that event what will be the future history of the patients? Will the disease return? If, as in these cases, the development is purely local, I think experience teaches that it does not recur. But much, if not everything, depends upon the time of operation. The longer the delay the greater the danger.

[The patient was shown to the class three weeks after the operation. She had made a good recovery.]*

*Since this lecture was delivered, Dr. Baer has completed his last series of one hundred ovariectomies. Two of the last four were of that class of neglected cases in which recovery is always doubtful. In one, a universally adherent 50 pound poly-cyst, the patient was so weak that the radial pulse could not be felt. The patients are doing well.