REMOVAL OF A LARGE FIBROID UTERINE TUMOR BY LAPAROTOMY: CURE.

In March, 1887, Dr. Hammond, of Charlestown, sent to me a lady, thirty-three years old, unmarried, tall and stout, and seeking advice and relief on account of an abdominal tumor. She had always been well until four years ago, when she noticed an umbilical rupture caused by pitching hay. On examination of the abdomen, a large, hard tumor was found; the uterus apparently could be moved independently of the tumor. The abdominal girth was forty-three inches. The aortic impulse could be felt strongly through the tumor. Her menstruation was frequent, but not excessive. The tumor was movable. She had lost flesh in her face and arms, though she was stronger and stouter than most women. Her weight was 203 lbs. and was formerly 230 lbs. On May 10 I saw her again and found the tumor much as before; her weight was six pounds less. On December 2nd her weight had decreased seven pounds more, and as the presence of the tumor was annoying and prevented her from working, I suggested etherization to make out more fully the relations of the growth. During my different interviews with the patient I had said that I was ready to attempt the removal of the tumor whenever she made up her mind that her life was a burden to her, and she was anxious to undergo an operation of considerable danger. A few days afterwards she was etherized, and the tumor was found to be connected with the uterus, but the uterine cavity was not elongated, and it seemed as if the tumor might be removed without opening it. Her family and herself considered the question, and she came to me soon afterwards and said that she had carried the thing as long as she was going to, and desired its removal. On January 2, 1888, I operated. The incision extended from two and a half inches above the umbilicus to the pubes, and I took the opportunity afforded to cure the umbilical hernia. I tied and removed the adherent omentum, cut out much of the sac, and when the abdominal wound was sewed up I united the edges of the hernial sac also. The tumor was easily lifted by a corkscrew (a method I learnt from Mr. Tait), and a pedicle about four inches in diameter was secured by the *serre-nœud*. Although it seemed a beautiful case for intraperitoneal treatment, I did not dare to try it. The tumor sprang from the back and lower part of the fundus of the uterus, and when the pedicle was brought up to the abdominal surface, the left Fallopian tube and ovary protruded through the wound. It was impossible to unite the peritoneum and abdominal wall around the stump accurately, as not only did the ovary protrude but the uterine wall also, so close was the wire to the uterus; there was a stump but no pedicle; it was more like the position of a tightly sewn button on a coat. I removed the ovary and more or less of the tube, as they were in the way, and I feared would be strangulated or would be left outside the incision to be covered by granulations. I do not think that two drachms of blood were lost. The tumor proved to be a solid ovoid fibrous tumor weighing eleven pounds. The after progress of the case has been all that could be desired. On the 18th of January the wire was cut away, as it

did not come off, and had in fact been broken. You may ask why I did not try Apostoli's method in this case. Because the tumor seemed to be pediculated, because Apostoli's method is slow, tiresome, and laborious, and in a case like the present one, where the connection between the uterus and the tumor was pediculated, it seemed as if electrolytic action could not lessen the size of this hard, dense tumor by passing through an electrode in the uterus, and thence through the abdominal wall. I mean to try Apostoli's method patiently; but when I have a tumor like the one I show you in a strong, healthy woman, I shall remove it by laparotomy if the patient earnestly desires me to do so. Neither of these cases were operated upon under the spray of carbolic acid. I abandoned the use of the spray October 24, 1887, after using it continuously for ten years. Since giving it up my results have been as good if as not better than before. During the past three months I have done thirteen ovariectomies without using the spray, and all of these patients have recovered. I think this is rather interesting, for my faith in the usefulness of the spray was unbounded, and now I have as good results without its use. This does not militate in the least against the antiseptic theory, nor take away at all from the great and deserved fame of Lister. All of us *believed* in cleanliness before Lister, but it was his mission to so impress the necessity of it upon the world that we should all *practise* it. It was the coincidence of the discovery of Listerism at the same time that abdominal surgery began to be generally practised that has made the latter so successful and its progress so rapid. Abdominal surgery owes its birth to McDowell and its development and progress to Wells and Lister. Other names should be mentioned, such as those of Keith, Kimball, Thornton, Tait, Clay, and many others that will readily suggest themselves; but McDowell showed the possibility of ovariectomy; Wells resuscitated and established it by reporting all his cases with an honesty and faithfulness that should be imitated; and antiseptic surgery made laparotomy successful.

THE PATHOLOGY AND DIAGNOSIS OF SO-CALLED PELVIC CELLULITIS, WITH SPECIMENS OF SALPINGITIS.¹

BY E. W. CUSHING, M.D.

Few diseases present a more constant and well-defined group of symptoms, both objective and subjective, than the inflammatory affection of the pelvic contents which is so well known under various names. In few diseases has the proper comprehension of the pathology, as derived from autopsies, been so long obscured by notions supposed to be founded on physical examination; in none has a just realization of the essential nature of the disease been followed by so brilliant and successful surgical measures.

Curiously enough, from early times there have not been wanting accurate descriptions of the diseases of the fallopian tubes, as found at autop-

¹ Read before the Section for Clinical Medicine, Pathology, and Hygiene of the Massachusetts Medical Society, Dec. 12th 1888

sies, but these were supposed to be affected as a consequence of pelvic inflammation, rather than as being the essential and causative factor of the latter. It required the surgical genius and success of Tait and Hégar to bring the profession to realize that the diseased and swollen tubes, involved in a mass with ovaries, lymph, and perhaps pus, as described so accurately by Bernutz and Goupil in 1857, are verily the same lumps and "effusions" which we are all continually encountering in pelvic inflammations, and which under the teachings of eminent authority have been supposed to be outside of the cavity of the peritoneum, between the folds of the broad ligament, a supposed inflammation of cellular tissue, forming a so-called "pelvic cellulitis." Verily a case of *lucis a non lucendo*.

Perhaps it will be worth while to pause here a moment and enjoy the pleasure which delighted the pedantic Wagner, that of transporting ourselves into spirit of other times and observing how wise men have thought, in order to mark our own progress:—

"Es ist ein gross Ergetzen
Sich in den Geist der Zeiten zu versetzen
Zuschauen wie vor uns ein weiser Mann gedacht
Und wie wir's dann zuletzt so herrlich weit gebracht."

In the first place, it is often supposed that the ancients knew little or nothing of uterine diseases, had no works on the subject, and left all treatment of such affections to ignorant midwives.

Nothing can be further from the truth. The most important uterine diseases have always been and always will be clinically the same, although the treatment has improved with the knowledge of pathology, and the advance of surgery due to the introduction of anæsthesia and the enforcement of cleanliness.

How graphic and true is the clinical description of pelvic inflammation by the father of medicine:² "If the uterus is inflamed the menses are suppressed, and the vagina is mottled with many fine veins, like a spider's web, the fever is acute and causes delirium, and the menses when they reappear are scanty and unhealthy; if the patient eats anything she vomits, and pain invades the lower part of the abdomen, and the loins, and the patient faints, and shivers through her whole body, but the belly is sometimes hard and sometimes soft, and it is inflamed and swollen."

Then comes the description of the symptoms of subacute general peritonitis, which sometimes ensues, and the severe course of which is described; to this let me add the description of the results of local examination from Mercurius, the court physician of Philip II. of Spain:³ "If the posterior and superior part of the uterus is inflamed, there is pain in the parts around the navel, and sometimes we see them raised in a swelling, but there is worse pain in the loins and the excrements are passed from the bowel with difficulty, etc." "If the fundus is inflamed there is acute pain in the lowest part of the abdomen, so that the latter seems unable to bear any touch even externally, and the uterus is usually drawn toward the inflamed place, and this accounts for its os and collum being turned the other way. It differs from an hysterical attack in the ardent fever and intense heat of the part. If

the anterior part of the uterus is affected a difficulty of urination or a stillicidium ensues, and there is severe pain in the umbilicus and the parts near and below the latter, and if the finger is placed against the os uteri it feels to the touch hard, closed, hot, and retracted, especially if the inflammation is in the uterus itself or in its neck, and by the pain, hardness, and heat you will distinguish this condition from pregnancy.

But if the sides of the womb are inflamed the groins are tense, and the thighs are moved with difficulty and pain, and in some cases the leg on that side limps in walking, etc."

Then follow the symptoms of suppuration, with a graphic description of the severe cases and a description of the various ways in which the abscess breaks, the relief afforded thereby; the treatment with poultices,⁴ sitz-baths, narcotics, vaginal injections, and vaginal suppositories, cotton tampons medicated with emollient and discenting decoctions, cupping and venesections, the latter only when the inflammation does not arise from abortion, nor from severe labor, or if the patient has not lost much blood.

"Universa etenim curandi phlegmones ratio in prohibitione ejus quod fit et ablatione ejus quod factum est constitit" ("For the universal method of treating phlegmons consists in preventing whatever is forming, and removing whatever has been formed").

If resolution does not come on, suppuration is encouraged by appropriate treatment until it comes within reach, when it is to be opened after the surgical method of Ætius, which consists in cutting the integument with a knife and opening the abscess with a hot iron, placing the woman in a position favorable for drainage and washing the cut three times daily.

I have brought here several of my books, in which the curious will find how various wise men have considered this subject before us. To understand them it is only necessary to remember that the uterus in general included the os externum or vulva, the vagina or sinus or cervix uteri, the os internum, now called externum, the collum or vaginal portion, as well as the tubes or cornua uteri, so called from the fancied resemblance to the horns of animals, situated on the uterus as the head; of course the tubes were well known before the description of Fallopius from whom they now take their name. The question naturally arises as to how much better off is a woman with pelvic inflammation now than was one similarly affected in the time of Philip the Second. Probably in acute cases not much better off, as far as medical treatment is concerned. The disease is the same, the therapeutics are the same, except that the surgical treatment is now bolder, surer, and better, under favorable circumstances and in the hands of experts.

But it may be said that these old fellows knew nothing of pelvic cellulitis; they laid all the trouble to inflammation of the uterus and its appendages; they did not know about the "areolar tissue."

That is where they were right, and where in modern times the greatest error has arisen. It is

² De morb. mullerum, lib. 2.

³ De virg. et id. affect. et de uteri morbis, lib. ii. p. 606.

⁴ "Make and apply to the lower abdomen a poultice of fenugreek, linseed, wheat flour, boiled figs, and turpentine."

only within the last few years that really accurate views have again prevailed as to the nature of pelvic inflammation. That the fallopian tubes could be diseased and adhere to the ovaries and to other parts has long been known.

In his classical work, which I have here, Fallopius says distinctly that the tubes are never adherent to the ovaries unless as the result of severe disease of the uterus:—

"Nunquam observare potui meatus istos semina-
rios conjunctos cum testibus, nisi uterus male af-
fectus fuerit. . . Nam si in uno latere adfuit tumor
aut cancer ejusdem etiam lateris testis ita contrac-
tus et colligatus cum dicto meato apparuit ut
connati simul viderentur, at oppositi lateris sani
scilicet testis non ita se habere semper visus est.
Sin autem utrumque latus erat affectum uterque
meatus pariter conjunctus cum teste arte reperi-
batur, hocque his aut ter ad summum vidi" ("I
have never been able to find those seminal
passages (tubes) joined with the testes (ovaries)
unless the uterus was diseased; for if on one side
there was a swelling or cancer the ovary of the
same side appeared so contracted and adherent to
the said passage (tube) that they seemed congeni-
tally united. But the ovary of the opposite
healthy side never seemed to be in such a condition.
But if both sides were affected each passage was
found by me equally joined to the ovary; and this
I have seen twice or at the most three times").

De Graaf,⁵ in his celebrated work, which I show
here, figures fallopian tubes deformed and occluded
at their extremities.

After de Graaf, and quoting his work and that
of Fallopius, comes Ruysch, of Amsterdam, who in
1725 published at immense expense his treasury or
catalogue of his wonderful museum. Fortunately
I am in possession of a copy, which I have here.

He correctly explains⁶ and figures the occlusion
and dilatation of the fallopian tubes and their adhe-
sion to the ovaries, due to inflammatory processes
usually following difficult labors, and insists on the
consequent sterility. He relates cases of puerperal
fever with autopsies where the pelvis was full of
foul matter apparently regurgitated or forced
through the tubes from the uterus.

He insists on the frequency of inflammatory
affections, and consequent great distention of the
tubes, which he says he never would have believed
if he had not made autopsies on so many women.

I will not take up any more time by quoting
these old authors at length; but as they are over-
looked in the modern references to the subject I
have thought it well to present their books to-night.
It must be remembered that these works were in
their time great authority, and were continually
studied and quoted; the successors of these authors
in Europe have therefore always preserved a just
comprehension of the nature of pelvic disease; and
descriptions of the various forms of salpingitis are
scattered through the works of the pathologists and
gynecologists of more recent times.

A very full bibliography of the subject is given
by Prof. Wylie at the end of his admirable article

on salpingitis in the recent "American System of
Gynecology," edited by Prof. Mann.

It is needless for me to repeat it here. It is
sufficient to say that about 1884, by the writings of
Marchal de Calvi, followed later by Nongt (1849),
and yet later by West, Simpson, and others, the
seat of pelvic inflammation was located in the
areolar connective tissue which surrounds the cer-
vix and fills out the broad ligament.

On the other hand, Aran insisted that the masses
felt during life and found after death were con-
nected with the uterus and tubes. In 1857, and
later, and more fully in 1862, Bernutz and Goupil
described and explained the real nature of pelvic
inflammation with precision and accuracy; by the
courtesy of Dr. Sinclair I present their work to-
night.

It now seems difficult to understand why their
observations did not have more effect on the profes-
sion, especially as the discriminating mind of
Thomas⁷ very early supported their views with the
weight of his authority, while Emmett has always
upheld the doctrine of "pelvic cellulitis," and I be-
lieve is still unshaken in his opinions.

The popularity of the works of the later author,
the authority of his personal teaching, and the
influence of the men who have studied under him,
combined with the fact that the doctrine as taught
seemed founded on the plain evidence of the sense
of touch—all these causes conspired in this coun-
try to smother the truth as taught by Bernutz, until
the results of the autopsies described by the latter
were supported and emphasized by the results of
hundreds, ay, thousands of operations for salpin-
gitis, where the evident "cellulitis" could be felt
to disappear from the "broad ligament" as the
operator shelled out a pus-tube and ovary from
behind the uterus.

It is not always easy to understand what is
meant by pelvic cellulitis, but as far as I com-
prehend the various authors, and as I previously
understood the subject myself, it is as follows:—

The course of cellular tissue in the pelvis is pretty
well known. Something like a year ago I read be-
fore the society, in connection with the subject of
tubal pregnancy, a translation from Prandl⁸ of the
instructive work of Schlesinger, who by injections
of air and of liquid glue between the folds of the
broad ligaments, near the tubes, showed that areolar
tissue, loosely connected, ran between the folds of
the ala vesperitilionis up along the psoas muscle,
inwards around the cervix and between it and the
bladder, outward to the inguinal ring and down-
ward between the rectum and vagina. Now this is
precisely the course taken by the pelvic collections
of pus in seeking for an outlet; and when on exami-
nation of a patient a mass is found laterally and
posteriorly to the uterus, nothing is more natural
than to suppose that the hard mass is in the thick-
ness of the broad ligament, and thus entirely out-
side of the abdominal cavity, below the peritoneum.
If the mass enlarges it would be held that the peri-
toneum lining the cul-de-sac of Douglas is lifted up,
still leaving the "effusion of lymph" extraperi-
toneal; if after death the ovaries and tubes are
found diseased, in many cases it was urged that

⁵ A plate in the same work (De Graaf, "Opera Omnia," 1678),
showing a tubal pregnancy copied from Vassalius, and properly
interpreted, is interesting at this time. Ann. of Gyn., Dec., 1888.

⁶ Anatomical Observations, 43, 81, and 85, "Adv. Dec.," i. p. 6,
Th. ix. 15.

⁷ Diseases of Women, 2nd ed., 1869, pp. 380-381 et seq.

⁸ Ann. of Gyn., Feb., 1888, p. 221 et seq.

these were bad cases and therefore fatal; that here the tubes or ovaries were affected because they also were between the folds of the broad ligament, and more or less connected, on one side at least, with this areolar tissue. That, however, most cases which are not fatal, and which recover without suppuration, get well because the lymph in the areolar tissue is absorbed.

If the pelvic peritoneum is inflamed, it is held to be by extension of the disease from its point of origin between the folds of the broad ligament, around the blood-vessels and lymphatics.

This, as I understand it, is the doctrine of pelvic cellulitis or parametritis. It is plausible, fascinating, but, as I believe, entirely false, except perhaps in certain puerperal cases, where a rent, extending at the side of the cervix right into this areolar tissue, may become septic like any other wound.

How then shall we explain the symptoms? If the mass or masses which we feel are not in the broad ligament, where are they? If not effusions in the areolar or cellular tissue, what are they? In answering this I will premise that I am well aware that in one sense the tubes and ovaries are between the folds of the broad ligament; but when speaking here of the broad ligament I mean that part of it which comes up to the limit of the side of the tube, or to the hilum of the ovary — regarding these organs as practically in the general cavity of the abdomen, like the fundus of the uterus itself.

I answer, then, that the mass as felt is in the pouch of Douglas, behind the broad ligament, or laterally at the side of the fundus uteri, or even sometimes on one side posterior and on one side anterior to the latter.

What is the mass? It is a distended tube, or tube and ovary, which may or may not be imbedded in a mass of lymph more or less recent. In bad cases there may be pockets of serum or of pus outside the tubes, but yet within the cavity of the peritoneum, above the latter, and roofed in by coils of intestine matted together and lined with lymph, which may form a strong and smooth membrane, a sort of sack for the abscess. If the areolar tissue is entered, it is secondarily while the abscess is finding its way out along the lines above described.

The diagnosis is to be made between this condition, with its various subdivisions, and the tumors proper and cysts which are found in the same locality.

These comprise — distended tube and its complications: hydrosalpinx; hamatosalpinx; pyosalpinx; tubercular salpingitis; tubal pregnancy; abscess between tube and ovary surrounded by sac; serous collection in pouch of Douglas adjacent to tube and roofed in by adherent intestines; pus-pockets in the same locality as the last, but usually more thoroughly enclosed by a wall of lymph. Tumors or other possible conditions: parovarian simple cyst; parovarian papillomata; small cystic tumor of ovary; small dermoid cyst; fibroid tumors of uterus; faecal collections; hæmatocele (intra-peritoneal). Cellulitis proper: Periproctitis and perityphlitis; psoas abscess, descending; abscess around vermiform appendix, descending; infected wound of cervix and vagina. Inflammation of hæmatocele (extraperitoneal), or of tubal preg-

nancy (after rupture between the folds of the broad ligament).

The differential diagnosis of the above affections is often difficult and sometimes impossible without an exploratory incision. Very frequently two or more of them are combined; *e.g.*, the chief cause of suffering in a case of fibroid (myoma) of the uterus may be, and often is, a complication with pyosalpinx.

So also a tube in a state of moderate catarrhal salpingitis may, when nearly healed, become the abode of a tubal pregnancy, and this in turn may by rupture lead to a pelvic hæmatocele, and to severe attacks of pelvic peritonitis.

It would unduly prolong this paper to discuss elaborately the subject of differential diagnosis, but there is one point in the symptoms or history of the case which always leads us to suspect tubal disease, and that is the occurrence of *fever*. The patient usually can give a very definite answer to the questions, Did you ever have inflammation of the bowels? How long were you confined to bed by it? Did any matter form and break? Then there will be a history of repeated attacks of pelvic pain with fever, of severe and repeated suffering during the menstrual periods, of lameness, backache, etc. Usually or always in old cases there is a history of repeated and fruitless attempts at mechanical assistance: the patient cannot wear any pessary; Drs. A. B. C. and X. Y. Z. have tried to fit pessaries, but they all hurt her, and often she has been very ill after the womb was "raised up with an instrument."

The patient is said to have an adherent retroversion: "her womb is grown on to the back passage," or there is an anteversion or lateral version.

In severe cases there is a recent history of suppuration. The patient is found in bed, with the symptoms described by the ancient authors above mentioned, who, be it said, also describe at great length the hard masses which remain unless the "peccant" matters are properly "concocted" and eliminated. Or there is a fistula, continually or occasionally discharging pus; in the latter case there is usually an account of attacks of pain and fever whenever the fistula closes.

It is very difficult to describe exactly the feeling on bimanual examination; by repeated practice a certain familiarity with the pelvic organs and their relations is acquired which cannot easily be adequately conveyed in language.

The first thing observed is that the examination is painful to the patient. The uterus appears displaced: at first it seems retroverted, but by careful examination it is usually found that the fundus is anteverted and often drawn to one side, showing that the tender mass behind, and lateral to the uterus, must be something which does not belong there.

Now small ovarian tumors, dermoid cysts, and cysts of the broad ligament do not give rise to fever and are not usually painful to the touch; the same may be said of fibroid tumors when small and subperitoneal; tubal pregnancy can usually be excluded, especially in chronic cases; the tumors of simple hydrosalpinx are not fixed but movable, "pelvic cellulitis," *i.e.*, inflammatory effusion between the folds of the broad ligament, is practically

a myth; pelvic hæmatocoele has a characteristic history and course. Therefore, by exclusion we arrive at a pretty clear diagnosis of salpingitis and consequent localized peritonitis.

Especially is this opinion confirmed when another mass is found on the other side of the uterus, also tender, fixed, and chronic. The only double tumors likely to be found on both sides, except distended tubes, are double papillomata of the broad ligaments and double dermoids, both of which, by their lack of fever and tenderness, and by their steady growth, soon differentiate themselves from tubes, and require an operation which settles the diagnosis.

It is often desirable, especially before deciding on an operation for removal of diseased tubes, to examine the patient under anæsthesia; the relaxation of the abdominal walls, and of the muscular floor of the pelvis, and the consequent relief of the pelvic organs from pressure, wonderfully facilitate the examination, which is completed by a rectal examination, with two fingers in the rectum, the thumb in the vagina, and the other hand on the abdomen. I may here observe that great care must be taken not to rupture the pus-tubes nor to squeeze out pus from imperfectly occluded fimbriated extremities. Such an occurrence might easily be, and in fact has frequently been, followed by a severe or even fatal peritonitis.

In such an examination the first landmark to be sought for is the fundus of the uterus; just as in the corresponding operation for removal of the tubes, we start out from the fundus to determine their position, size, and attachment. In normal cases, especially under anæsthesia, the tubes can usually be felt at either cornu, forming, with the round ligaments, bodies which feel about as large as lead pencils, which can be rolled under the fingers, and moved freely about. After an attack of gonorrhœa their increase in size and hardness can often be observed long before acute perimetritic symptoms develop.

In catarrhal salpingitis, where the fimbriated extremities are occluded and the tubes are distended, they can be traced as soft, sausage-shaped bodies at the sides of and behind the uterus, sometimes quite large, but usually freely movable and not very tender to the touch.

In pyosalpinx, however, they are more apt to be fixed by repeated attacks of pelvic peritonitis; the tubes fall down behind the ovaries, as described so well by Wylie, and are glued to them; the left tube generally gets first into Douglas's pouch and keeps the other out; tube, ovary, and effused lymph form a mass of a size widely varying, from that of an egg to that of the two fists or larger; on one side this blocks up the pouch of Douglas and presses on the rectum and bulges down behind the uterus; on the other it may lie further forward, even at the brim of the pelvis, where it is readily felt as a lump in the iliac region. If the tubes and the neighboring adhesions contain much pus, fluctuation may be distinctly felt, with the well-known symptoms of pelvic abscess; more frequently the mass is hard or doughy; often it varies from week to week as pus and serum distend the tube and the surrounding pockets, and then are gradually absorbed again.

That is the real nature of pelvic cellulitis, and nothing is more surprising and convincing than to feel from the vagina the disappearance of a mass, supposed to be in the areolar tissue of the broad ligament, as the operator unrolls and shells out a brace of pus-tubes.

It may be said that there is nothing new in all this. Such affections of the tubes are described by Bernutz and Aran, by Kiwisch and Ed. Martin and Klob, and by many others. That is true; but what is comparatively new is the realizing sense on the part of the profession that the tubal affections are the origin and not the consequence of the pelvic peritonitis, that the former come directly from the passage of infection from the uterus into the tubes. From this last fact results a growing appreciation of the danger of infection from gonorrhœa and from sounds and instruments. The pithy remark of Credé, "that he who does not examine a woman does not infect her," is well worthy of remembrance, both in regard to obstetrical and gynecological work. I purposely say little as to the causes and symptoms of the disease; are they not written in all the books? It is all an infection from one cause or another.

The immense importance of gonorrhœal infection in causing tubal disease is becoming more and more appreciated both by the profession and the public, and the erring husband who hereafter infects his wife will receive the execration he deserves. An important duty rests on the members of the profession, in duly impressing on men the danger of infecting their wives even after they themselves seem to be cured.

But it will be said that this explanation may suffice for old, chronic cases, which are operated on either for severe inflammatory attacks or for unendurable pain and loss of health. But how about the cases which are "resolved" and get well? How about a woman who "catches cold" after "local treatment" and runs through a course of cellulitis, where there is a mass in the pelvis as big as a child's head at term, the uterus fixed, the roof of the vagina hard? This cannot be a tube, neither is it an abscess, for it does not suppurate, but under expectant and soothing treatment it all goes away.

Now these cases are frequent, and in the first place very many or most of them do not get well entirely, but have a mass of adhesions and a disease of the tubes left, which cause sterility and future trouble. Some do get well, however, and bear children. What is such a mass? Is it not in the areolar tissue? No, the mass is inside the cavity of the peritoneum. It is chiefly one or more serous cysts, bounded by the peritoneum below, and above by adhesions and by coils of intestines. The hardness is caused by involuntary contraction of the muscles, and by tenseness of the cyst; possibly to some extent by an infiltration of the adjacent "areolar" tissue with œdematous fluid; the origin is in the tube and the cause is the "treatment."

Another group of cases too important to be more than mentioned to-night are the cases classed as cellulitis which followed labor or abortion. Here again every one, in discussing the subject, admits a puerperal "cellulitis" of the "areolar tissue," but how many such are seen post-mortem. Beside the

cases of acute septicæmia, thrombosis, etc., when there is peritonitis what is found at autopsy? Just what Ruysch found (Obs. 43, 84, 85) — a collection of foul matter *in the pelvis*, the tubes diseased, and similar matter in the tubes and uterus. Most of these patients die; although in some the matters are shut out from the general abdominal cavity, a pelvic abscess results which is not between the folds of the broad ligament; if this matter is evacuated the diseased tubes remain, and may give rise to continual trouble afterward. In some cases a condition of comparative comfort results, but the diseased tubes can be detected long afterwards in very, very many cases in women who never recover their health perfectly.

Very lately, Tait has operated on a series of these puerperal cases. He reported eight in June last,* with two deaths. J. Price (and perhaps others) has followed him in this country, having operated, as he writes me, on seven puerperal cases up to the present time, with two deaths. In all the cases there was no sign of disease between the folds of the broad ligament; salpingitis and pelvic peritonitis were what was found.

I saw myself one of M. Price's operations on a woman with pelvic inflammation after abortion, and I shall never forget the hugely distended pus-tubes, large as Bologna sausages, which were shelled out, while the pelvis was full of stinking pus in pockets running up between the intestines in all directions; it was, as Ruysch said, "*colluries humorum non sine magno foetore.*" Here is a great field in the future for the snatching of women from almost certain death by an operation which, *if not deferred until too late*, offers a good prospect of relief.

[Specimens of gonococcus and sections of healthy and diseased tubes were exhibited under the microscope, and Dr. Cushing related his own experience in operating for inflammatory disease of the tubes eighteen times with one death.]

THE TREATMENT OF PELVIC INFLAMMATIONS.¹

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IN the management of cases of chronic pelvic inflammation, the accurate diagnosis is a highly essential element, without which the practitioner is entirely at a loss to know what to do and what to leave undone. The differentiation between the various conditions apparently identical to the touch requires a careful review of the history and symptoms, an experienced tactile sense and frequently repeated examinations at various intervals. If a careful examination were made under anæsthesia, in the exaggerated lithotomy position, whenever the diagnosis was not sufficiently clear, many false conclusions could be eliminated. There would then be fewer cases of pelvic exudations treated as uterine displacements by the use of the sound and pessary; the number of uterine fibroids, so gracefully and rapidly dispersed by electrolysis would in a degree diminish, and pelvic cellulitis would be relegated to its proper place in pathology as a phlegmonous inflammation.

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If there is any disease in which a difference in treatment based on the social condition of the patient is allowable, it is in these pelvic troubles. The washwoman, the cook, the shop-girl, the seamstress, in short, women dependent for support on their own earnings, will consent to any operative proceeding which promises them speedy relief and the early resumption of the work which alone protects them against a pauper's lot. In these instances the early operation is a boon, and the long-drawn-out treatment under adverse circumstances an unwarranted makeshift. On the other hand, patients whose resources enable them to carry out strictly the demands of a palliative treatment ought to be made acquainted with this alternative before counselling radical measures, except where such measures are vitally indicated. While many of this class of patients are rendered comfortable from time to time by palliative treatment, and an exceptionally few may be permanently cured, it is to be regretted that some authors, through reports of incomplete cases, mislead the practitioner into the belief that the majority of such cases are curable without resort to surgical interference; that the hot douche, the supporting tampon, the application of iodine, and especially the use of galvanism, are the means by which the congestions are relieved, the adhesions softened and finally absorbed, the displacement rendered accessible to correction, in fact, the patient completely restored to health.

My own experience does not fully agree with this roseate view. The following cases, whose histories will be alluded to in outline only, are without doubt representative of numerous similar cases under the care of other physicians. They have one characteristic in common, and that is, their long duration, which renders them so much the more typical of the class now under discussion.

CASE 1. Age 30. Married seven years. Mother of one child six years old. Consulted me a few months after confinement. Complained of nervous disturbances, severe backache and great weakness, partly due to semi-monthly recurrent menorrhagia. Examination revealed a subinvolved, retroverted uterus with chronic endometritis. The application of iodized phenol and the retention of the uterus in its proper position by a hard rubber pessary relieved the patient. In an unguarded moment, a brood of bacteria found access into the pelvis, causing a subacute pelvic peritonitis. When the patient recovered after an illness lasting four months, we (Dr. G. C. E. Weber being my consultant) found retroverted uterus bound by adhesion, and the ovaries large and exceedingly tender. After the uterus had been freed and replaced, the shortened uterosacral ligaments could be felt as sharp, rigid bands raising the vaginal vault in corresponding folds. The continuous traction and its reflex results not yielding as rapidly as the patient had hoped, she consulted Dr. T. G. Thomas, of New York, and remained at his private hospital for six weeks, where she underwent some local but mainly general constitutional treatment. She returned improved, but still ailing; she finally became pregnant and was confined last July. She is now in better health, but is still wearing a pessary, without which she is miserable, and is not yet cured. This being a case of chronic ovaritis with pelvic adhesions,