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Parametritis ×××

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PARAMETRITIS (OR PELVIC CELLULITIS): ITS PATHOLOGICAL IMPORTANCE AND CLINICAL SIGNIFICANCE.*

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It is scarce necessary to remind the Alumni of the Woman's Hospital of the importance attached by Dr. Emmet to parametritis (or pelvic cellulitis) on account of its clinical significance and pathological dignity. You can, one and all, recall how frequently, in his clinical instruction, he insisted upon the necessity of the recognition of this factor to explain many symptoms referable to the pelvic organs. Of late years, however, a certain class of gynæcological writers refuse to acknowledge the pathological importance of parametritis, nay, some go so far as even to deny its existence as a pathological entity. Thus a writer, Dr. Baldy, in a recent work entitled *An American Text-book of Gynæcology*† speaks as follows: "An attempt to classify and compare, for differential purposes, the symptoms of cellulitis and peritonitis is of no more than problematic value; it is of no practical benefit. Clinically, the two affections are indistinguishable, for the reason that they always complicate one another, and their symptoms are so closely interwoven. The symptoms of the cellulitis, which is mostly secondary, are few and unimportant and are completely overshadowed by the far more important and severe symptoms of the peritonitis, the primary disease." Pozzi (*Traité de gynécologie*, deuxième edition, p. 675) expresses himself in these terms: "Aran, who was the first to see clearly the extreme importance of the ovary and the tube in uterine pathology, was in advance of his age, it may be said, when he subordinated unreservedly pelveo-peritonitis to inflammation of the annexa of the womb. . . . As a matter of fact there is a tendency to return

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† *An American Text-book of Gynæcology*, p. 470.

to the doctrine of Aran without affirming, however, it seems to me, with sufficient decision, that it alone may and ought to take account of almost all the peri-uterine inflammations. The most recent authors still maintain a separate description for parametritis and perimetritis, sometimes with the addition to them of adenolymphitis, and the embarrassed reader does not know what opinions to adopt in the midst of the subtleties of an illusory diagnosis. For my part I stand squarely on the doctrine of Aran. The facts that I have observed show me that the great majority of the peri- and para-uterine inflammations are nothing but salpingitis and perisalpingitis. The lymphatics assuredly play in them a great rôle, but this rôle is itself subordinated to the anterior inflammation of the mucous membrane of the uterus and its prolongation into the oviduct. And it is the primordial phenomenon which ought to give the name to the disease." There is certainly a marked discrepancy between the views advocated by Emmet on the one side and Pozzi on the other. What is the explanation then of this contrariety of opinion among gynæcologists? One reason is the addition to our knowledge of the morbid affections of the pelvic organs which abdominal surgery has brought us. As Lawson Tait observes (*Diseases of Women and Abdominal Surgery*, p. 132), "before the light came which was shed upon these ailments by modern abdominal surgery I believed, as others did and do still, that parametritis, or pelvic cellulitis, was a common disease; and in my writings up to 1878 it is evident that I confused cases of damaged uterine appendages with 'pelvic cellulitis.' The latter disease is rare and occurs in two forms, depending for their characters on the situation of the disease." This is undoubtedly correct. Many cases which we ormerly diagnosticated as parametritis, we now know to have been salpingitis or oöphoritis. Other cases diagnosticated as *parametritis posterior* may have been *perimetritis*. It is not strange, therefore, from the tendency in human nature to run to extremes, that many modern gynæcologists, especially those who have largely to do with abdominal surgery, should advocate such partial views. It is well, however, to bear in mind the homely wisdom embodied in the German adage "in emptying the bath it is not necessary to spill the baby." In these circumstances then let us invoke the aid of pathological anatomy and accurate clinical investigation to ascertain, if may be, what is the true doctrine in regard to parametritis. In his classical essay upon puerperal diffuse metritis and parametritis (*Archiv für pathologische Anatomie und Physiologie u. für klin. Med.*, Bd. xxiii, S. 416) Virchow thus speaks: "The loose mass of fat and connective tissue which fas-

tens the vagina and the neck of the womb laterally and at the same time forms the basis of the ligamenta lata is one of the most frequent places of disease, and yet we would always think erroneously if we were to call these morbid states diseases of the ligamenta lata. The name *parametritis* will remove the obscurity. The uterus itself as well as the loose tissue just mentioned, which forms the basis of the broad ligaments and is prolonged into these, is very frequently the seat of puerperal diseases." In the early stages of parametritis, if a puerperal woman dies accidentally, what is to be found? Virchow answers this question thus: "We may perhaps say in the ordinary sense of a coarse section nothing is to be found, and we may especially with tolerable certainty assert, that if such a uterus were to be the object of one of those ingenious examinations which we are accustomed to call forensic, it would be quite certainly noted as normal or healthy. A true humoral pathologist would then further infer that the process here 'was purely in the blood.' Notwithstanding, much is to be seen in such cases, at least as much as in an inflamed cornea in the first stages of its disease, we must, to be sure, observe accurately, and I am convinced that each one who gives due attention to the subject will also find the true state of affairs without difficulty, if he has, in the first instance, gained an accurate idea as to what is of consequence." This condition he describes as "cloudy swelling." At other times the disease assumes the character of a diffuse phlegmon. Again the processes may range from the slightest form of phlegmon to the severest diphtheritic, gangrenous, and putrefactive forms. Therefore, he grouped them together, from their similarity to erysipelas of the skin and subcutaneous tissue, under the name of *erysipelas malignum puerperale internum*. This description of Virchow applies to but one form of parametritis, as a matter of course, that which most frequently comes under the observation of the pathological anatomist, while the form ending in restoration to health did not find proper recognition. It is fortunate that this subject has been studied by W. A. Freund in his beautiful monograph,* from the standpoint of pathological anatomy and clinical experience, in a way that has illuminated it with rare felicity. "Functionally," says this author, "a significant rôle is imparted to the connective tissue by virtue of its union with three hollow organs exposed to very great changes of volume and place, in part subjected to the most active metabolism. Thanks to this union it takes ready and active part in

* *Gynæcologische Klinik*, Strassburg, 1885.

the manifold diseases of these organs, and in some of them—especially those evoked by infection—it affords the nearest and most important station for the morbid products." Again: "There is scarcely a notable disease of the pelvic organs in which the pelvic connective tissue does not play a larger or a smaller rôle; in many cases its participation gives the standard for the prognosis and the therapeutical indications in acute and chronic diseases of these organs, so that it can not be overlooked or underestimated without danger. In this sense we may say that the pelvic connective tissue controls gynæcological pathology." According to Freund all forms of pelvic phlegmonous inflammation may occur in all conditions of the sexually mature woman. "This affection is not rarely observed," he remarks, "in the non-gravid condition of the sexually mature woman, but appears most frequently and most intensely in the puerperal state." In the paper I read before the Obstetrical Society, Feb. 3, 1891, following Landau, Spiegelberg, and Freund, I discriminated between a traumatic and septic form of acute parametritis. In the light of modern investigation this distinction can not be maintained. The cause of acute parametritis is always to be sought in an infection with microbes after wounds. The microbes are the pus-producing schizomycetes, the *Staphylococcus pyogenes aureus* and *albus*, and especially the *Streptococcus pyogenes*. With this single modification I subscribe heartily to the views of Freund, founded as they are on accurate clinical study and pathological anatomical investigation, and shall follow him in my exposition. Thanks to the general introduction of antiseptic and aseptic rules infected wounds in obstetric and gynæcological practice are much less frequently seen now than formerly, and consequently acute parametritis is not observed as often in modern times as previously. It occurs in two forms—that in which there is hardly any exudate, but the formation of a *lymphatic thrombosis*, and a *phlegmonous form*, with extensive infiltration of the parametric tissue, and subsequent breaking down of tissue into pus, with the formation of an abscess. Outside of the puerperium parametritis occurs in connection with infecting wounds of the cervix, the portio-vaginalis, and the upper and middle parts of the vagina. In years gone by it was especially observed after dilatation of the cervix by sponge and laminaria tents, and after explorations of the uterine cavity by the finger. Again, in consequence of the use of unclean sounds and after ulcerations of the vagina produced by ill-fitting pessaries. No more competent clinical observer than Fritsch can be mentioned, yet listen to his views as to the existence of a non-puerperal parametritis. "I might

here," he remarks (*Bericht über die Gynäkologischen Operationen des Jahrgangs*, 1891–'92), "shortly discuss the question, Is there outside of the puerperium ætiological grounds for parametritis? This question must be answered in the affirmative, although, in general, cases of non-puerperal origin are certainly exceedingly rare. In some cases, which to me were demonstrative of spontaneous origin, I finally ascertained that a criminal abortion had been produced which at first was not to be supposed. I have also seen some cases which, to my mind, make it probable that a perityphlitis may become a parametritis. . . . Again, parametric tumors are developed with especial facility after intra-uterine therapeutical measures, if once before a *parametritis puerperalis* had occurred. I have several times, after very cautious aseptic curettage operations, seen large parametric, inflammatory tumors originate in a few days without participation of the peritonæum. In old lateral lacerations the boundary between the parametrium and the inner wall of the cervix is so thin that certainly an accidental infection of the parametrium easily takes place. Also in pyonephrosis large extraperitoneal suppurations may develop, reaching down deep into the pelvis. I have operated upon some such cases in nulliparæ. But how such accumulations of pus can develop quite spontaneously in virgins, in which cases an infection is not to be supposed, is an enigma. And yet now and again we see such a case." Freund calls attention to the fact that an extensive parametric exudation may cause compression of the ureter. In one case he mentions, in which the parametritis was on both sides, urinary retention existed for ten days with the development of a hydronephrotic distention of colossal dimensions. The patient refused puncture and died of uræmia. Fritsch states that in an autopsy made upon a patient who had chronic parametritis he found atrophy of one kidney. Freund properly calls attention to the practical significance of distortions of the ureters caused by parametric cicatrices. "In discissions and amputations of the cervix, and in total extirpation of the uterus, this circumstance," he remarks, "deserves careful attention. We should always bear it in mind on the demonstration of parametric cicatrices." As confirmatory of the doctrines taught by Dr. Emmet let me quote from this author the following passage: "It is a known fact that shrinking *parametric* cicatricial bands may cause displacements and deformities of the uterus of different kinds, mostly permanent, by displacement and fixation of the cervix. The very significant influence of these cicatrices, too, on the occurrence of neuralgias of the pelvic nerves and those of the inferior extremities, and on the venous disturb-

ances of circulation in the pelvis and inferior extremities, has been repeatedly discussed; finally, their influence on the chronic inflammatory catarrhal conditions of the uterus, the bladder, and the rectum deserve mention. Blood and lymph circulation suffer under these circumstances direct disturbances and indirectly through the fixation of the organs, which in this way are withdrawn from the influence of the respiratory movements more or less. The significance of these factors for the origin and cause of freshly appearing inflammatory processes is perceptible." The symptoms of parametritis are well characterized and are those pertaining to an inflammatory pelvic tumor, and consist of pains, increased by pressure, referable to the pelvis and extending to the leg of the affected side, besides sacral pains. At times the pains are insignificant. There is difficulty in the evacuation of the fæces and the urine. The fever is attended with evening exacerbations. Of all importance is the diagnosis. At times it is comparatively easy and at others a matter of exceeding difficulty. The results obtained by objective examination, especially in the beginning of the affection (as the boundaries of the exudation are not accurately defined), are usually of less importance than the knowledge of the point of departure of the inflammation. If an inflammation beside the uterus occurred in connection with a wound of the portio, of the fornix vaginæ, or the posterior commissure of the vulva, extending high up the vagina, it necessarily, in the beginning, is situated in the parametric tissue, and the facts elicited by bimanual palpation would correspond. If the tumor originated without pains, if it is not very sensitive to pressure, it must have originated in the subserous tissue. Exudations situated deep down in the pelvis correspond mostly to the parametritis, while exudations situated beside the uterus in the higher part of the pelvis are either tubes or ovaries. Exudations felt behind the uterus, extending around to one or the other side, are caused by tube, ovary, or pelvic peritonæum. Another point of great diagnostic value is the circumstance that a woman suffering from parametritis does not impress one as having a grave affection to the same degree as a woman with pelveo-peritonitis. When resting quietly in bed she makes no complaints of suffering. The parametric exudations are very readily confounded with uterine *myomata ;* generally, however, the differential diagnosis can be made by bearing in mind that such exudations have a more flattened form, are not round. Also this confusion may be avoided by having regard to their origin, their want of mobility, and their sensitiveness to pressure. A case beautifully illustrative of the mode of origin of parametritis occurred in my practice

recently. I was called to see a woman suffering with phlegmasia alba dolens three weeks subsequent to her confinement. She had been attended by another physician in her confinement. Here the point of departure of the parametric process was the cervix, the place of inoculation being a laceration which had occurred in parturition. The infection was doubtless produced by the vaginal irrigations which had been used. The inflammation had extended along the connective tissue, accompanying the large vessels of the thigh beneath Poupart's ligament to the femoral region, and by compression had produced secondarily venous *thrombosis*. In regard to treatment it is not necessary to enter into details before this audience. I shall only call your attention to some recent suggestions as to the management of purulent parametritis. Fritsch is an advocate for the early incision of the parametric abscess from the vagina. To use his language: "Tumor and fever * is for me an indication for the operation when the tumor is large and no advance toward improvement is obtained by the ordinary therapeutical measures. If the tumor remains two or three weeks of the same size, and the typical absorptive fever proves that pus is present, I consider the operation as indicated." Veit, in the course of his remarks upon purulent parametritis made at the session of the Obstetrical and Gynæcological Society of Berlin, May 10, 1894, declared that by this early incision no harm is done, but no good is accomplished. Of especial importance, in his opinion, is the determination of the place to be incised. This will be decided by the anatomical relations of the exudate. The opening from the vagina, in his opinion, is only indicated when the posterior third of the parametrium is infiltrated and the vagina here is encroached upon by the tumor. In all other cases, with the exception of the gluteal abscess, called forth by the infiltration making its way through the *incisura ischiadica major*, he maintains that an incision above Poupart's ligament is indicated. This, of course, is *subperitoneal*. Only when the lowest end of the abscess extends into the pelvis is drainage through the vagina indicated. It is a rather remarkable fact that Pozzi, who was present at this meeting of the Berlin Obstetrical and Gynæcological Society, in the discussion following Veit's remarks, observed that he had operated upon two cases of parametritis by this method for which he had proposed the name *subperitoneal laparotomy*. According to his views, quoted above, there is no such thing as parametritis in the strict sense of the term. This inconsistency is apparent. But,

* *Vide loc. cit.*, p. 282.

besides the acute inflammations of the parametrium with their chronic consequences, there is a chronic form of parametritis which runs its course without the formation of a plastic exudation and leads to cicatrization and atrophy of the parts affected. The anatomical demonstration of this peculiar and interesting form of inflammation we owe to the admirable researches of W. A. Freund. He gives it the name *parametritis chronica atrophicans.* Even virgins are attacked with this affection. It is frequently found in the connective tissue of the folds of Douglas, constituting Schultze's *parametritis posterior.* Dr. Emmet, as you are all aware, laid great emphasis on this variety of parametritis in his clinical demonstrations to explain many morbid phenomena. This inflammation takes its origin, it is supposed, from a small wound of a mucous membrane, for example, of the rectum in obstinate constipation, of the *portio,* or of the vagina. The essential feature of the disease is a diffuse induration of the connective tissue analogous to cirrhosis of the liver, lungs, and kidneys. The significance of this form of inflammation is exceedingly great. As has been sufficiently demonstrated, especially by the post-mortem investigations of Ziegenspeck, a typical form of anteflexion is evoked by *parametritis posterior.* Pressure on nerves, the cervical and large parametric ganglia, may result, as well as displacements of the uterus. All the phenomena of *neurasthenia* and *hysteria* may be observed in the subjects of this affection. The local symptoms are pains radiating before, backward, and downward, disturbances of the functions of the bladder and rectum and dysmenorrhœa. The treatment should consist of such general measures as are applicable to the hysterical and neurasthenic cases. Locally hot-water vaginal douches seem to accomplish much. Küstner asserts that he has met with some success in desperate cases by a recourse to castration. As you will perceive, I have only touched on many interesting points which might have been largely expanded. My aim has been to be suggestive rather than dogmatic. I hope, in conclusion, that I have sufficiently shown that the doctrines maintained by Dr. Emmet in regard to the vast significance of parametritis rest on a secure basis, and that if his views, in the light of modern science, must be modified in detail, yet in their great outline they can not successfully be combated.