

GONORRHEA OF THE UTERUS AND ITS APPENDAGES—A SURGICAL SURVEY.

By ANNA M. FULLERTON, M. D.

Clinical Professor of Gynecology Woman's Medical College of Pennsylvania.

EMINENT gynecologists have long recognized the fact that chronic lesions of the uterus and its appendages due to gonorrhoea are among the most stubborn and intractable conditions with which we have to deal. Gonorrhoeal urethritis and cystitis in women are less frequent and more readily treated than in men.

Gonorrhoeal vaginitis, also, is a malady quite amenable to management in its acute form, when it produces such distressing local symptoms as to lead the sufferer at once to seek medical aid. The practice common among women of using vulvar and vaginal washes, often medicated, even in the absence of disease, tends to keep acute manifestations of trouble rather in abeyance at these sites. Within the cervical and uterine canals and in the Fallopian tubes, the gonococcus finds itself in an impregnable fortress, as it were in which it may remain unmolested until it accomplishes its fullest work of destruction. Therefore, it may quite readily be understood why it is so often necessary to subjugate it by very radical measures, viz.: by the entire destruction of its defences, the removal of the organs affected.

According to G. Kline, of Germany, (*Munchener Medi-*

cinische Wochenschrift, June 4, 1895) the gonococcus does not limit its growth to the cylindrical epithelium. He has found it affecting stratified and peritoneal epithelium and connective tissue, as in periurethral tissue, connective tissue of the Fallopian tubes and even in abcess of the ovary. The clinical picture of gonorrhœal manifestations in the female include vulvitis, urethritis, cystitis, kolpitis, endocervitis, endometritis, salpingitis, oophoritis, peritonitis and parametritis, while metastasis, due to the gonococcus present themselves in the form of monarticular arthritis, myositis, perineuritis and even endocarditis. Thus it is evident that instead of being the cause of simply a strictly localized disease, as was once held, the gonococcus is capable of originating general systematic conditions, the direct consequence of the lodgment of the specific virus in other regions.

In the *Journal of Cutaneous and Genito-Urinary Diseases* (March, 1895). W. R. Pryor, of New York, treats of the manifestations of gonorrhœa in women, obtained from an extensive examination of prostitutes. He claims that gonorrhœa occurs frequently as a latent condition, which may become acute, probably as the result of any process which may, for the time, decrease the resistance of the infected tissues. The acute attacks thus instituted may result in the most disastrous consequences, entirely without fresh infection.

Bruising of tissues by confinements, operations, or violent coition may bring about conditions leading to increased activity on the part of the gonococcus, and producing acute attacks of urethritis, vulvo-vaginitis, endometritis, salpingitis, etc., cases of which Dr. Pryor quotes. He further regards purulent urethritis and endocervicitis as due in an overwhelming percentage of cases to gonorrhœa. According to his observations, the gonococcus seeks the racemose gland for its habitat and we, therefore, find gonorrhœa as a latent disease in women in the compound racemose glands of the cervix. Dormant gonorrhœa produces no changes which will allow of its recognition. In such a state it may become acutely virulent at any moment, so as to be communicated to other tissues of the woman, or to the male, or to her child.

What is now designated as chronic purulent salpingitis Dr. Pryor considers as practically the same condition as is

described in the male under the term "gleet." Tortuosity, thickening and constriction of the tubes from gonorrheal salpingitis find their analogue in the inflammatory manifestations and strictures of the male urethra. The impossibility of treating gonorrheal salpingitis according to the measures approved for the treatment of gleet is very manifest.

Llewellyn Eliot, of Washington, claims it is possible to catheterize the Fallopian tubes (see *American Journal of Obstetrics*, February, 1894). This being established, the attempt to treat cases of diseased tubes by applications directly to their mucus surfaces, he regards as justifiable. Should professional skill in time attain the easy accomplishment of this maneuver, the practice must ever be attended with considerable risk. The greatly narrowed calibre of the tubal canals under the influence of disease; sometimes, in fact, their entire obliteration, together with the tortuosity induced by inflammatory thickening, must render the feat a questionable one, so far as practical service goes.

When, therefore, the tubes become pockets for collections of pus, and represent the haven of disease capable of producing still further depredations upon the organism, even menacing the life of the patient, there is but one method of management to be considered—the removal of such collections of pus, which usually implies complete removal of the offending organs.

The evacuation of pus collections in the tubes per vaginam, is a procedure which cannot fail to prove unsatisfactory for many reasons. In the first place it is only applicable when the pocket of pus is low down in the pelvis and in close proximity to the vaginal vault.

Again, we cannot be sure, in entering one pus cavity that we have reached all the points where such septic material has accumulated. The carrying out of subsequent treatment for cleansing of the cavity or cavities thus evacuated and draining them, is attended with much annoyance and discomfort to the patient.

The procedure is a tedious one, the after treatment often covering a period of several weeks. It is usually, also, attended with the attainment of but imperfect results; adhesions or a diseased condition of the appendages remaining which subsequently result in fresh attacks of trouble.

The operation to my mind is one only to be resorted to when a patient is entirely unfit for the more radical operation of coliotomy. My own experiences in vaginal punctures and drainage have only served to confirm me in this view. Several cases requiring repeated operation and even the subsequent performance of abdominal operations for removal of the diseased appendages.

Cullingworth of London, read a paper before the London Obstetrical Society, in October, 1894, reporting a series of cases in which he operated for non-cellulitic suppuration and in which he found suppurating cysts of the ovary and ovarian abscesses due to secondary infection. Next to purulent salpingitis he found the ovaries to be the most frequent seat of suppuration in the pelvis. Galabin, in discussing the paper, concurred with him and emphasized the necessity for removing the whole of the ovarian tissue in such cases. Weinckel, of Munich, in a report presented to the Obstetrical Congress of Vienna in 1895, in speaking of the spread of gonorrhœal infection, considers that from the cervix the gonococcus makes its way through the uterine wall to the peritoneum, and ascends also to the mucous membrane of the uterus. Wertheim's observations in Schanta's clinic (*Centralblatt für Gynækologie*, Leipsic, Nov. 26, 1895) shows that gonorrhœa of the uterus produces in all cases an inflammation of the mucous membrane which may be called an interstitial endometritis with suppurative catarrh. In many cases the chronic course of this inflammation leads to increase in the number of glands—or what is termed a glandular endometritis.

But the mucous membrane is not the only portion of the organ affected. There occurs in many cases, inflammatory changes in the muscular tissue, and inflammatory infiltration of the connective tissue, sometimes hyperplasia of the walls of the blood vessels and finally hyperplasia of the connective tissues at the expense of the muscular tissue. We thus obtain the indurated, enlarged uteri which form so troublesome a factor in gynecology. The puerperium, Wertheim considers, holds an exceptional position among the conditions producing injurious consequences, as it frequently leads to an extension of the gonorrhœal invasion of the uterus. Here he is in accord with the views of Pryor.

Should one be so fortunate as to see a patient early enough after the invasion of the uterine mucosa by the gonococcus, a thorough dilatation and curettement with cauterization of the uterine cavity may prevent the spread of the disease to other structures, in the opinions of many operators.

Some, however, as Auvard of Paris, strongly object to the use of the curette in acute gonorrhoea (See Archives de Tocologie et de Gynecologie, Paris, Sept. 22, '94). They think the trauma thus induced favors the spread of the disease. Many operators object to irrigation of the uterine cavity after curettement, contending that septic particles are thus washed into the Fallopian tubes and become the source of later manifestations of trouble. They employ the curette with thorough cauterization of the uterine cavity. Munde, of New York, uses a fifty per cent solution of chloride of zinc in the ward cases, and iodized phenol in milder cases. Pure carbolic acid is preferred by others as being effective and not tending to produce cicatrization of the uterine mucosa as is the case often with chloride of zinc solutions. If the curetting be thorough and deep no stronger application is needed.

Opinions also vary as to the methods of drainage which are most useful, some keeping the cervical canal dilated for the purpose by a pessary, such as the silver wire Outerbridge pessary, others preferring the gauze drain. The former is probably the cleaner and, therefore, less dangerous method. It has not been my practice for some time to pack the uterine cavity, but, if using the gauze drain to introduce a small end of it only above the internal os and then to thoroughly pack the vagina, which has, of course, previously been thoroughly sterilized. This drain should not remain more than twenty-four hours without changing.

When gonorrhoeal disease has progressed so far as to produce organic changes in the deeper structures of the uterus, dilatation and curettement is not only of no avail but an absolute *source of danger*, as the slightest trauma thus induced may lead to an acute attack of gonorrhoea, due to rejuvenation of the gonococci, and most serious consequences from extension of the disease may result.

The question, therefore, naturally arises, what is to be

done with uteri so changed in structure through the virulence of this poison, as to be a constant source of ill-health and a menace to the life of the patient?

Conservative surgeons who were once much shocked at the proposition to remove the uterus together with the adnexa when such manifest disease of the organ existed, now regard it as an elective procedure, especially in the very numerous cases in which the endometrium is likewise the seat of perulent inflammation and where extensive supuration with adhesions exists.

Another argument for removing the pelvic organs entire in such cases is advanced by Dr. J. Henry Carstens, of Detroit, who refers to the reflex symptoms of pelvic disease arising from the involvement of the sympathetic and other nerves. "When," he says, "the sympathetic and other nerves are affected, the cause is not the uterus, the ovaries or the tubes alone, but partly in each; and we are unable to state which organ was at the bottom of the trouble.

In many cases with marked nervous symptoms the best results are obtained only after the complete removal of every particle of the generative organs, uterus, tubes and ovaries." (*N. Y. Medical Journal*, Sept. 21, 1895.)

R. S. Sutton, of Pittsburgh, considers that a uterus deprived of its appendages is of no use and that if left, is liable to tuberculosis, gonorrhœa, syphilis, adhesions, etc. H. O. Marcy, of Boston, favors retaining the cervix, if it is healthy, because it acts as a support for the vault of the vagina. It is always safer to excise the entire mucosa of the cervical canal in so doing.

Our Philadelphia operators conform more and more to these radical methods of procedure in their work. The results of my own work have proved most satisfactory when the most radical operations were done.

In one point my own practice in operating has been somewhat at variance with that of many of the best operators, and that is in the employment of drainage for at least a few hours, or until the tube is dry, where adhesions have existed which have been at all extensive.

Boinet (in *La Semaine Medicale*, Paris, Nov., 1895), considers that the pus of salpingitis may be injected directly without results, but in a few hours may acquire great

virulence under favorable conditions. Therefore, he thinks, sero-sanguinolent operative effusions may become veritable broth cultures, and their removal by drainage should be practiced in every case. Whether this be true or not, certain it is that drainage renders a patient much more comfortable during convalescence, the temperature as a rule remaining normal, the pulse quiet, and the tongue clean. With proper attention the drainage tube need not, I believe, become in itself a source of infection.

The fact that radical measures such as are advocated by the advanced workers of the day from whom I have quoted, are attended with some risk to the patient is no argument against their employment. In the hands of the experienced and conscientious operator such risks bear no comparison to the still greater risk attendant upon inefficient treatment. That grave operations should only be undertaken by those who have prepared themselves to assume the responsibilities they entail is manifest.

Objections to these operations on the ground that they destroy the child-bearing functions of the woman, must be weighed against the question of her risk in so doing when affected by disease; also, I think we should consider the question of the desirability of her transmitting to her offspring a quality of life physically and perhaps morally debased in consequence of the diseased condition of the maternal organs concerned in gestation.

It would seem that no sane woman, however desirous of tasting the joys of motherhood, could find it consistent with true maternal instinct to deliberately bring children into the world who must by their sufferings expiate her misfortune or her folly.

123 South 16th Street.