SECTION VIII.

THE SECRETIONS OF THE CERVIX AND VAGINA SHOULD NOT POISON OR KILL THE SPERMATOZOA.

The vagina and the canal of the cervix each secrete a mucus peculiar to itself. That of the vagina is acid; that of the cervix very slightly alkaline. These secretions become changed in character and consistence by any inflammatory action set up in the glandular apparatus that gives rise to them. We shall consider their deviations from a normal condition,

1st. Of the vaginal secretions; and

2nd. Of the cervical.

1. The vagina is subject to an inflammatory action, which may arise from a specific cause or not.

Vaginitis is a most troublesome affection; it matters not from what cause it originates. It usually has a specific origin, but it may arise spontaneously; sometimes it is secondary to some irritating discharge from the uterus. Sir Charles Locock* says: "There is one material point connected with leucorrhœa, and especially where the discharge is purulent or of an acrid character. In such instances it is well known that sexual intercourse will often bring on a train of symptoms very much resembling gonorrhœa in the male. This, when occurring between husband and wife, has often led to much domestic unhappiness, from the supposition of one

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* "Cyclopædia of Practical Medicine," article Leucorrhœa.

party or the other having contracted gonorrhœa from impure connection."

I am unhappily able to substantiate fully all that is here stated on this point by this distinguished authority; for I have seen many cases of urethral inflammation in the husband, that were unquestionably contracted from the wife, who, however, had merely a leucorrhœa of an acrid character.

The treatment of vaginitis is now reduced to great simplicity. I have found Demarquay's plan to answer admirably. It consists in introducing a tampon of cotton or lint saturated with a solution of tannin in glycerine, from two to four drachms to the ounce. This dressing may be retained three or four days. According to Demarquay, the average time of treatment by this method is about a fortnight.

Recently Dr. John J. Black,* of the Philadelphia Hospital, Blockley, has made some experiments in the treatment of vaginitis with medicated suppositories that produced most satisfactory results. He experimented with persulphate of iron, alum, tannin, copaiba, and a variety of other remedies, and arrived at the conclusion that the suppository plan of treatment was superior to all other methods in efficiency, cleanliness, portability, and ease of application at any time, and without the aid of instruments. Subjoined is one of Dr. Black's formulæ for their preparation:

℞ Ol. Theobromæ, ʒ xii.
Morphiæ Sulph., gr. vi.
Liq. Ferri Persulph., gtt. cxliv.
Cerat. Adipis, ʒ iij ss.
M Et fiant Suppositoria xii.

* *American Journal of the Medical Sciences*, No. XCIX. July, 1865, p. 63.

Of these, one is to be introduced into the vagina every other day, except during menstruation. Dr. Black says: "The average number of days required for the cure was as follows:—Liq. ferri persulph., nine days; alum and tannin, nine days and a half; ol. copaibæ, twelve days; comp. iodine ointment, thirteen days; citrine ointment, fourteen days; chloride of zinc, nineteen days." The very strong preparations were inferior to the milder.

This is certainly far better than the old plan by nitrate of silver and vaginal washes, which was always tedious and most unsatisfactory. I do not know that vaginitis, properly speaking, is absolutely opposed to the vitality of the spermatozoa. According to Donné they live in pus and blood, and a variety of other fluids. I have frequently seen conception to happen where the cervix uteri was the seat of profuse suppuration, so that pus, *per se*, is no hindrance of this. The most troublesome obstacle of this sort is to be found, not in the quantity but in the character of the vaginal secretion. This, as before stated, should be slightly acid; if it is very acid it kills the spermatozoa instantly. I have seen many cases in which they were all dead within five or six minutes after coition. In all these cases the vaginal mucus was by no means abundant, but the surface of the vagina always had a reddish look, and its papillæ were prominent.

By simply inspecting the surface of the vagina, and testing the degree of acidity with litmus-paper, I have sometimes been able to say that the vaginal mucus would probably poison the spermatozoa. The blue litmus should be slowly turned to a faint pink when the secretion is normal; but when it is abnormal, the litmus-paper turns quickly to a deeper pink colour. I have seen conception twice where the vaginal mucus poisoned the

spermatozoa. One was remedied by slightly alkaline washes used before sexual congress. In the other it occurred in this way. A lady, aged twenty-eight, was married six years without issue. She had a contracted os. It was incised; but she did not conceive. She had an indurated cervix, the consequence of cystic disease. For this she was under treatment for nearly two months. It was cured; and her husband came to take her home. Wishing to see the character of the semen, I examined the vaginal mucus four or five hours after coition. The spermatozoa were all dead. On the next day I examined them in five or six minutes afterwards, and could not find one alive. I then placed in the vagina a small tampon of cotton moistened with a little glycerine, which held in solution some of the bicarbonate of soda (twenty grains to the ounce). This application was repeated on the next day. The cotton was tied with a string for its easy removal. This was worn from about two o'clock p.m. till eight the next morning. Its removal was followed by connection. Living spermatozoa were afterwards found in the greatest abundance. Indeed, there were no dead ones at all. Conception dated from that moment, being just two days before the expected return of the menses, which, however, did not recur. There had been no sexual intercourse for nearly two months before. Labour came on at the fulness of time; and the delivery was safe.

According to Kölliker, the phosphate of soda is peculiarly favourable to the movements of spermatozoa; and this would probably be a good application in such cases as the above. But as yet I have had no experience with it.

2. Of cervical leucorrhœa.

Dr. Bennet has done much for the treatment of the

diseases of the cervix uteri; and Dr. Tyler Smith's contributions to the Pathology of Leucorrhœa* are of the greatest importance. With these and the comprehensive treatises of West, of Churchill, of Hewitt, and of McClintock now before us, and all fresh from the press, I can here afford to pursue pretty much the same course as that which I have followed all along, viz., to give a few clinical illustrations of merely surgical and manipulatory processes.

Cervical leucorrhœa may be a hyper-secretion from the lips of the os, or from the cavity of the cervix. It is almost always of albuminous consistence, and very difficult of removal. Under the microscope it presents the characteristics of muco-pus. Sometimes it is merely an exaggerated secretion seemingly without any abnormal qualities. It interferes with conception in two ways—mechanically and chemically. Mechanically in blocking up the canal of the cervix, and preventing the passage of the spermatozoa; chemically by poisoning or killing them. I have frequently seen conception happen while using the nitrate of silver for granular erosion of the os and cervix uteri. Unless there is some special reason for it, I never interdict sexual congress during the treatment of ordinary cases of cervical engorgement. Where conception has taken place under these circumstances, I am satisfied that sexual intercourse must have occurred within ten or twelve hours after the use of the remedy, or at least before its eschar began to separate, which is always attended with a secretion of muco-pus that would be fatal to the spermatozoa.

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* "The Pathology and Treatment of Leucorrhœa." By W. Tyler Smith, M.D., Professor, &c., 1855.

the patient knowing what it was; and if the scent of it was mistaken for the taste, the mother, or aunt, or nurse present would have been as liable to be thus deceived as the patient, which was never the case. I am perfectly satisfied that I have known patients to experience the taste of tannin in the mouth only two or three minutes after it was applied to the cervix uteri.

Great care is necessary in the use of the syringe. How often have I seen vaginal injections given without their ever reaching the posterior cul-de-sac; occasionally not even the anterior. Why any one should ever have made a curved vaginal tube I cannot understand; and yet we find them in all the shops. If a curved tube be introduced into the vagina with its concavity upwards the distal end will strike against the anterior wall of the vagina before it reaches the cervix uteri; if, on the contrary, it be turned backwards, it will as invariably rest upon the posterior wall of the vagina without passing under the cervix, and in either case it fails totally in the object of its use. A vaginal syringe tube should be about the size of the little finger, and full four inches long. The patient should be taught to use it for herself. It should be passed into the vagina, and directed downwards and backwards as if it were to be passed in the direction of the os coccygis. It should be pushed gently on almost by its own gravity, if the patient is in the recumbent posture, till it seems to be arrested by an elastic resistance, which is the posterior cul-de-sac. We shall then know that the end of the tube is under and beyond the cervix uteri.

When we, then, begin to inject the water, we shall feel confident that it will in its regurgitation bring away whatever secretions may be lying in the vagina, whether

high up or low down. We cannot be too careful in our directions about the use of vaginal washes, for if not properly applied they may not only fail to accomplish all that we expect from them, but they may produce most painful if not dangerous consequences. We all know what a serious matter it once was to throw the blandest fluid into the cavity of the uterus; indeed, many of us had altogether given up the practice of injecting this cavity with any fluid whatever till Dr. Savage showed how safe it was after the dilatation of the os internum by sponge tents. The accident that I allude to as sometimes happening from the use of the vaginal syringe is that of suddenly throwing a jet of water forcibly into the cavity of the uterus, which produces a dreadful uterine colic, attended with the most distressing symptoms of prostration. No man who has unfortunately witnessed the perfect collapse following such an occurrence, whether by accident or design, can ever forget the feeling of dread that seized his own soul as he saw his patient launched in a moment from a comparative state of ease and comfort into the very jaws of death, as it were. I have never known any one to die as a consequence of uterine injection, but he is a rash man who runs the risk of his patient's life after once witnessing the painful results of such a thing under the old régime.

The uterine colic accidentally produced by the self-injecting syringe has always happened under my observation in cases of retroversion. In these, the os tincæ presented in the line of the axis of the vagina; the end of the tube entered the open os, and the water was thrown directly into the cavity of the uterus. It is, therefore, most important in cases of retroversion, to teach the patient the art of using the syringe properly

and safely as well as efficiently. To prevent any accident it would be well to close the little hole in the end of the tube, leaving the lateral ones open.

Amongst other vaginal washes for cervical secretions, I must not omit to mention Dilute Hydrochloric Acid. I gave Mr. Swann, of Paris, several samples of mucopurulent albuminoid-looking secretions from the cervical cavity, for experimental observation, and he found that dilute hydrochloric acid was the only chemical capable of dissolving it, that could be used locally as a wash. Where there is no vaginal irritation or epithelial abrasion, this may be used with advantage according to the following formula:—

℞ Dilute Hydrochloric Acid, ℥j.
Distilled water, ℥ vij.
M.

A tablespoonful in a pint of tepid water to be thrown into the vagina night and morning.

But vaginal injections are only adjuvants of treatment. We cannot depend upon them wholly for curative results. They are valuable in their way, and not to be ignored. I know of nothing more difficult of cure than an old cervical leucorrhœa; and notwithstanding the vaunted success of this or that remedy, I fear that the young practitioner will often be disappointed in their application.

Professor Courty, of Montpelier, foiled in the treatment of cervical leucorrhœa by the ordinary routine, resorted to the expedient of leaving a bit of nitrate of silver in the canal of the cervix for several days, and describes good results from it. Dr. Simpson has lately been applying various remedies in the vagina in the form of suppositories, made of the butter of cocoa. I have

recently had made little suppositories of cocoa butter, an inch and a quarter long, and small enough to pass along the cervix, medicated with various remedies so as to bring these into permanent contact with the diseased surface. For instance, I have had them made, containing severally morphine, atropine, alum, tannic acid, persulphate of iron, &c., in appropriate doses, and think they promise very satisfactory results.

A very convenient way of applying remedies topically to the cervix uteri is that introduced, I believe, by Kiwisch, of using a tampon of cotton or lint, saturated with a solution of the remedy to be so used. I have for a long time adopted this plan, and have every reason to be satisfied with it.

If I were asked what next to mere mechanical obstruction of the cervix uteri constitutes the greatest obstacle to conception, I would have no hesitation in saying that it was an abnormal secretion from the cervix.

We often see the cervical mucus in such large quantities that its mere abundance will mechanically prevent the passage of the semen to the cavity of the uterus. Sir Joseph Olliffe has informed me of the case of the wife of a medical man, who had been sterile for many years, and whose cervix uteri always presented a little mass of ropy mucus hanging from the os that obstructed mechanically this canal. At last, the doctor had the rational surgical idea to exhaust the cervix of its inspissated mucus, and sexual congress with his wife immediately afterwards was followed by conception.

I knew but little about the effects of the mucous secretion of the vagina and the cervix upon the vitality of the spermatozoa until within the last three or four years; and I am now satisfied that the cervical secre-

tion is often poisonous to the spermatozoa, even when it would seem to be almost normal in appearance. This must depend upon some other quality than mere alkalinity, for I have often found all the spermatozoa in the cervical mucus dead while it manifested no unusual degree of alkalinity when tested by litmus-paper. But when placed under the microscope it showed an uncommon number of epithelial scales. This demonstrated an abnormal action in the glandular apparatus that gave rise to this secretion, which seemed to kill the spermatozoa more by its density than by its chemical action; for I have noticed that they lived longer in that portion of the mucus that had the fewest number of epithelial scales; and, vice versâ, died quicker in that portion that had the most; and that, too, when litmus-paper showed no difference in the chemical character of the two.

In these cases, in almost every instance after the use of a sponge-tent, for six or eight hours I have been able to detect by the sense of touch a small gristly growth at some point in the course of the canal of the cervix that was evidently the seat of this abnormal hypersecretion. Sometimes this is confined to a single spot; again, it may be spread over a surface of greater or less extent. Occasionally the whole of the lining membrane of the canal may be a muco-pyogenic surface. What are we to do when this is the case? As said before, I know of nothing more difficult to remedy. Professor Courty's plan of prolonged cauterization may hold out some hopes of a cure; or the method of intra-cervical suppositories already alluded to may be of service. But I am disposed to believe that we shall do better by ignoring caustics and caustic applications altogether, and resorting to some method of modifying this secretory

surface by pressure. My countryman, Professor Byford* speaking of Endocervicitis, says: "A bougie of slippery elm large enough to fill the cervical cavity, introduced as high as the inflammation extends, and allowed to remain for twenty-four or thirty-six hours, not only prepares the way for other applications, but favourably modifies the disease by its pressure upon the capillaries. The use of the stem pessary proves beneficial too, I think, in some instances, on account of the stem pressing upon the inflamed part inside the cavity of the cervix, and thus changing the character of the capillary action."

I am quite prepared to accept Professor Byford's teachings on this point, for I have known many cases of conception to follow the use of the intra-uterine stem, and I have now but little doubt that its curative action was more in relieving that condition of the cervical membrane that gave rise to abnormal secretions, than in merely mechanically dilating the os internum.

I have, in the early part of this volume, objected to the use of the intra-uterine stem; but there is a modification of it by Dr. Greenhalgh that I have occasionally used with good results. Its advantage over its prototype is, that it is tubular and self-retaining. It allows the secretions from the cavity of the uterus to pass through it, and at the same time it is not so liable to slip out.

Fig. 142 represents the instrument of full size. It is from two to two inches and an eighth long. It is introduced with the wings drawn into a straight line by means of a stilet, as shown in the figure. As soon as

* "The Practice of Medicine and Surgery, applied to the Diseases and Accidents incident to Women." By Wm. H. Byford, M.A., M.D., Professor, &c. Philadelphia: Lindsay & Blakiston. 1865. Page 262.

it is passed to the requisite depth, the stilet is with drawn; the wings spring back within the cavity of the uterus; the os internum grasps the instrument at its bifurcation, and the lower end rests against the os tincæ. Of course, this instrument can only be used after an incision of the cervix or a dilatation of it by a sponge or a sea-tangle tent. It may be made of steel and silver plated; but I prefer it of vulcanite.*

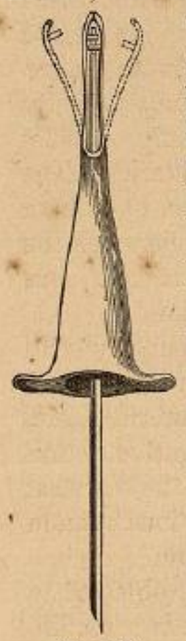

Fig. 142.

I have seen cases in which this instrument was worn with great comfort; and again I have seen others that could not tolerate its presence for a moment. In these last we shall find the cause of intolerance to be an endo-metritis which had not, perhaps, been suspected before. Dr Coghlan's† plan of using a tube of sheet-lead I have found to answer a very good purpose.

I have not been able to arrange any apparatus for withdrawing in an isolated form the secretions of the cavity of the uterus for microscopic and chemical examination. It is highly probable that this will be done at some time or other, and we shall then be able to determine more about the condition of its secretions as influencing the life or death of the spermatozoa. We have already made great advances in studying the effects of the vaginal and cervical secretions upon them;

* Made by Mayer, of Great Portland Street; also by Weiss.

† "On Dysmenorrhœa and Sterility; with Wood-cuts of New Instruments." By John Coghlan, M.D. *Medical Times and Gazette*, 1861, '62, and '64.

and I belong to that sanguine class of medical men who look forward with great hope to enlarged views and more certain methods, not only in this but in every department of medicine.

I have said a good deal about semen and its examination, and it is time that I should say something about the measures preparatory to this. Suppose we wish to examine the vaginal mucus soon after coition—say within an hour; we direct the patient to empty the bladder before the act, and to retain quietly the recumbent posture after it. The dorsal decubitus is the best. To remove a few drops of the contents of the vagina, pass the index finger into it, press the posterior wall downwards and backwards, just under the cervix uteri; hold it so for a minute or two; the semen will necessarily gravitate to the pouch made by this pressure; then introduce the nozzle of the syringe along the finger; let it project slightly over the end of the finger-nail, and it will be easy enough to obtain what we want if there is any semen in the vagina. I am thus minute in explaining this simple operation, because we may fail in it entirely, even when the vagina contains large quantities of semen, if we neglect these minutiæ. And in this way. If we pass in the syringe in a haphazard manner, and begin to draw the piston, the mucous membrane of the vagina is sucked up into the end of the tube, and thus it is possible for us to slide it around in various directions, without getting a drop of mucus of any sort. But suppose we fail even with properly directly efforts; then the left lateral position and my speculum will in a moment show us the whole of the contents of the vagina, and we can with the syringe remove what we want.

When we wish to examine the cervical mucus, we should resort at once to the speculum and the proper

position. It is well enough, then, to sponge away all the mucus from the vagina, and especially from about the cervix uteri. We then pass the nozzle of the syringe just within the os tincæ, and draw up a drop of its mucus. To do this it is necessary first to pull the cervix forwards, so as to be able to look into it and to see exactly what we are doing. If the cervical mucus is very tenacious we may fail to get it away. Then it will at the next attempt be necessary, after introducing the syringe, and drawing up the mucus, to pass the left index finger to the edge of the os tincæ, and slide the end of the syringe on to the end of the finger without raising it from the surface of the cervix, or breaking its suction power. This may seem to be a little thing to describe so minutely, but really it is a most important matter to know and to do, if we expect to be exact in our investigations. The nicety of this manipulation renders it the more important for us to clear away all the vaginal mucus before we undertake it, lest we get some of this drawn up into the syringe, which would, of course, mar the precision of our observations.

Suppose we succeed in this; then we may wish to pass the syringe up for an inch into the cervix to get a portion of mucus nearer the cavity of the uterus. This operation is quite as delicate and quite as important as the first, and is to be conducted in the same way. There is an object in having the end of the syringe bulb-shaped, as represented in fig. 140. This bulb fills up the os or the canal of the cervix, and prevents the air from being drawn into the instrument, as sometimes happened with me when it was slender and more pointed. For carrying a fluid of any sort into the cavity of the uterus, of course we need the nozzle of the syringe more like that represented in fig. 141; but for removing anything from the cervix the bulb form is the best.

As illustrating the exactness and the importance of this method of investigation, I will give an example.

Dr. Fauvel, the distinguished laryngoscopist, of Paris, requested me to see a patient of his, who had been married twice, and had had one child by the first marriage; none by the second. She was thirty-five years of age, the picture of good health, and menstruated regularly and normally. The uterus was slightly anteverted. She had no leucorrhœa, properly speaking; but the cervical mucus seemed to be slightly in excess of a normal quantity. What was the cause of her persistent sterility for the last eight years, and, indeed, for the last four years of her first marriage?

The questions to be answered were, Was the semen normal? Did the secretions of the vagina or cervix poison the spermatozoa? Did these enter the canal of the cervix?

The vagina was examined an hour after sexual intercourse. Its mucus contained living spermatozoa in abundance. The cervical mucus was full of them, but they were all dead.

On another occasion, a microscopic examination made but a few minutes (eight or ten) after coition, proved that the mucus of the cervical canal was full of dead spermatozoa, while in the vagina they were living. Here the litmus test was valueless; but the microscope demonstrated a superabundance of epithelial casts, the result of a slightly congested condition of some portion of the lining membrane of the cervix.

As said before, all abnormal secretions from the vagina have been classed under the generic term leucorrhœa, whether they emanate from the vagina, from the

canal of the cervix, or from the cavity of the uterus. Having already hurriedly glanced at the conditions of the first two that ordinarily give rise to such discharges, it only remains to notice those of the third,—viz., the cavity of the womb. We all know that muco-pus is the almost constant accompaniment of polypus, but as this has already been the subject of discussion we have here nothing more to say on it.

The cavity of the uterus sometimes becomes a regular abscess, as it were. This condition has been particularly described by Dr. J. Matthews Duncan, of Edinburgh.

Dr. West* (p. 137) says, "A peculiar form of uterine leucorrhœa, limited in its occurrence to the aged, and associated with dilatation of the cavity and atrophy of the walls of the uterus, has been described by Dr. Matthews Duncan, in the *Edinburgh Medical Journal*, March, 1860. Its characteristic symptoms appear to be peculiar lumbar and pelvic pain, accompanied by a sense of constriction, and the discharge of muco-pus. Its cure seems to require the dilatation of the contracted internal os by the sound, and the application of nitrate of silver to the interior of the womb. I believe that I have met with this condition on one or two occasions; but the patients, having their minds relieved with reference to the existence of uterine cancer, preferred putting up with the discomfort to submitting to treatment for its cure."

I have seen one well-marked case of this sort. The patient was about sixty years of age, and had had a purulent discharge from the vagina for twelve months or

* "Lectures on the Diseases of Women." By Charles West, M.D., Fellow, &c. Third Edition 1864.

more. She was the mother of a large family of grown-up children, and had ceased to menstruate at about forty-five. The discharge from the vagina was pure pus; and it had almost a cancerous odour. On examination, I found the vagina full of pus, and its whole surface and that of the cervix were excoriated and granular. The uterus was retroverted, and of rather unusual size for the period of life. I did not detect the true nature of the disease for some time; not till I had succeeded in restoring the vagina and the cervix to a perfectly healthy condition. Then I discovered that the os, which was very small, gave issue to a slight though constant discharge of pus, and that this was the cause of the vaginitis, which I had mistaken for and treated as the original disease. The cervical canal was very narrow, flexed, and contracted at the os internum, so that the uterus, as it was bent backwards, always held about an ounce of pus. As the first step in the treatment, the cervix was dilated; the pus was then evacuated; the cavity of the uterus was washed out with warm water, injected through a tube small enough for the stream of water to regurgitate easily by its side; and then the pyogenic cavity was injected sometimes with the Tr. of Iodine, and sometimes with a solution of the Persulphate of Iron. The patient soon began to improve, and was finally cured.

We can thus medicate the cavity of the uterus with the greatest safety, if we are only careful to provide an easy retrogression of the injected fluid, either by the sponge-tent, or by forcible instrumental dilatation with Priestley's or Ellis's dilator or some modification of these.

Endo-metritis has recently been the subject of considerable investigation. Scanzoni, Routh, and others, have written much upon it; Dr. Hall Davis has ex-

hibited, at the Pathological Society, the uterus of a woman who died of this affection; and Dr. Oldham has shown me a number of valuable specimens in the extensive Museum of Guy's Hospital illustrative of the varieties of this disease, which may exist in various degrees of intensity, from a merely congested and eroded state of the uterine mucous membrane to the extent of great disorganization.

General constitutional remedies are, of course, indicated, but are here never of any great value without local treatment. Nothing in uterine disease is more difficult to remedy than endo-metritis. The first great principle to guide us is that of insuring a very free exit from the cavity of the uterus for the secretions therein generated. The second is that of appropriate local applications to this cavity for the purpose of modifying or healing, as it were, its diseased surface. Where the canal of the cervix is contracted, I have freely divided it, as in cases of dysmenorrhœa dependent upon mechanical obstruction; and this with great relief. Indeed, while menstruation continues, it is almost impossible to treat successfully a case of endo-metritis, without adopting this principle of practice in some form. The uterine secretions must not remain pent up in its cavity. With a patulous cervix, we may use medicated injections, or apply nitrate of silver in ointment, as recommended and successfully done by Professor Fordyce Barker, of New York. There is a mild form of endo-metritis that seemingly gives rise to no secretions whatever, which, nevertheless, is attended with great suffering, and often passes unnoticed, or rather undetected for a long time. Dr. Routh has particularly noticed this form, and calls it fundal endo-metritis. We can diagnose this with great accuracy.

Place the patient in the left lateral semi-prone position; introduce the lever speculum, hook a tenaculum slightly in the anterior lip of the os tincæ; draw this gently forwards, pulling the os open so as to be able to look right into it; then pass the sound, previously warmed, gently along the cervix, using no force whatever, but almost letting it go by its own gravity, as it were, to the fundus. This is attended with no pain whatever till the sensitive point be reached, when it produces the most intense agony, a pain that does not cease sometimes for hours after the experiment. I have seen many cases of this sort. And I now call to mind a most accomplished lady from one of the Southern States who had been married for six or seven years without issue; and who, soon after marriage, passed into a state of chronic bad health, and became a confirmed invalid. For three or four years she did not pretend to walk; and was always carried from the house to the carriage whenever she drove out. Indeed her time was spent mostly in bed or on a lounge. Fortunately she was able to eat, and so her strength and embonpoint were kept up in spite of her sufferings. Her greatest agony was to be found in a never-ceasing pain in the left hip about the joint. She had a granular erosion of the os and cervix, attended with a leucorrhœal discharge, which were cured in the course of two months. But the pain in the left hip, and her utter inability to walk, continued in spite of all we did. Thinking that the diseased condition of the cervix was the principal source of all her troubles, and that the pain in the hip furnished merely an example of Sir Benjamin Brodie's hysterical joint, I had made no further uterine explorations, and was quite surprised to find my patient no better in any particular after the cervical erosion and its discharge

were cured. And now, for the first time, I explored the cavity of the uterus. When the sound passed the os internum my patient complained of intense agony, but almost the whole of it was referred to the left hip.

Dr. Alonzo Clark was called in consultation, and agreed to the line of treatment to be adopted, viz., that of applying remedies to the uterine cavity. The canal of the cervix was dilated, and the disease, with its painful symptoms, was perfectly cured in a few weeks, simply by injecting the cavity of the uterus with a few drops of glycerine two or three times a week. This was in 1858. In the course of a year after this, our patient became a mother and has had other children since.

Mr. Holmes Coote and Dr. Greenhalgh are at this moment attending a case of endo-metritis with me, where the pain is almost wholly in the left hip and left inguinal region. By touching even the canal of the cervix with the sound in the gentlest manner possible, a most intense pain shoots at once to the left hip and groin. Here there is not only pain but tumefaction of the affected parts, as we often see in some forms of hysterical hyperæsthesia.

A short time ago, I saw a patient with Dr. Thierry-Meig, in Paris, who, besides other evidences of uterine trouble, complained greatly of pain in the left ovarian, left mammary, and epigastric regions. Her symptoms, as a whole, all pointed to the uterus as their origin; but a superficial examination failed to demonstrate their relationship. The position of the organ was normal; there was apparently no hypertrophy of the fundus; there was no leucorrhœa, and no engorgement of the cervix; but by placing the patient in the proper

position, and making the exploration of the cavity as above directed, the gentle passage of the sound along the canal of the cervix was attended by a sudden exudation of blood in small quantity, and a severe pain, which became more severe as the sound reached the fundus uteri, from which point the pain radiated to the other foci of suffering above indicated. The exudation of a small quantity of blood, by the passage of the sound along the canal of the cervix, is a common sign of subacute inflammation of the utero-cervical canal.

In this case a single sponge-tent, followed by the injection of half a drachm of the officinal Tr. of Iodine, produced almost complete relief at once. A repetition of the same, ten or twelve days afterwards, produced a perfect cure. For the past two years this patient had been under the treatment of several other physicians, without the least benefit.

I think it highly probable that many unexplained neuralgic pains may yet be found out to be symptomatic of some slight endo-metritic affection; of which the case last mentioned may be taken as a type.

It is very probable that when we shall turn our attention more to the investigation of the condition of the cavity of the womb, we shall be able to detect, to explain, and to remedy its abnormal states with as much certainty as we now treat many affections of the cervix and its canal.

In many cases in which the spermatozoa are found to die quickly in the canal of the cervix, the real source of the mischief may yet be found to exist in the cavity of the uterus.