

flexion of the uterus to such an extent as to render the passage of the sound difficult. She suffered from profuse menorrhagia, and it was determined to try injection of perchloride of iron. It was only after repeated trials that the syringe was made to pass beyond the seat of flexion into the cavity of the uterus. The patient suffered no pain at the time, but at night had a severe rigor. On the fifth night rigor was accompanied by severe vomiting, and abdominal pains immediately ensued. On the following night this was repeated, whereupon she fainted and died. The intestines were found united by recent exudation. The lower parts of the pelvis were filled with stinking pus; the source of this was discovered in a cyst in the right ovary, which, through a small opening, gave issue to like matter. The right tube was permeable throughout its whole length by a large sound. The mucous membrane of the uterus was stained, as if with ink, and the same appearance extended along the right tube. The black patches showed iron by chemical tests. One fact, at least, is clear from this case—that perchloride of iron, like other fluids, may run along the Fallopian tubes. But it is not so obvious that the fatal result was due to this accident. No immediate symptoms followed the injection. The signs of intra-abdominal injury seem due to the perforation of the ovarian cyst under the pressure of vomiting.

In *Soulin's Journal* (1873) cases of mischief from injecting perchloride of iron into the non-pregnant uterus are cited. Iron was found in the peritoneum.

Hermann, of Lourcine Hospital, relates the following: A girl, aged nineteen, had profuse leucorrhœa. He injected a decoction of nut by a clyso-pompe into the uterus. At the first stroke she cried out, and put her hand to the left iliac region. Severe shivering set in, and lasted several hours; then febrile reaction followed. The pain spread to the abdomen, indicating metro-peritonitis. Hemorrhage appeared in two days, and she was relieved.

It deserves notice that the intense pain called forth by applying various substances into the cavity of the uterus is most frequently of the nature of colic; it does not generally indicate metritis.

Metritis may, however, be caused if the substances used are caustic, as distinguished from styptic or astringent. This difference may depend upon the kind, the degree of concentration, and perhaps temperature of the agents employed.

The danger of fluids running along the Fallopian tubes seems to depend upon undue patency of these canals. This undue patency in its turn is owing in many cases, at least, to obstruction at some lower part of the utero-vaginal canal. Thus in V. Haselberg's case, and in the one at the London Hospital, there were decided flexion of the uterus and dilatation of the tubes.

It is not enough to know that patients occasionally die after injections are thrown into the uterine cavity—we want to know why they die. Knowing this, we may learn how to avoid the causes of danger, without abandoning the use of a mode of treatment which renders in many cases incontestable service.

Many experiments have been made on the dead body to ascertain the behavior of injections. Hennig, Klemm, Guyon, Fontaine (*on puerperæ*),

Alph. Guérin, Guichard, Scanzoni, and others have done this. The experiments generally show that there is extreme difficulty in making fluids run along the tubes, especially if the injecting syringe does not completely fill the os uteri internum. I will not relate or analyze these experiments, because they appear to me to be of little practical value. The conditions of the dead and of the living tissues are essentially different. For example, in the dead body there is no muscular contractility, no irritability under stimulus, no response of the nervous centres to peripheral injury. Yet these are conditions which come into play when injections are thrown into the living uterus. It may, indeed, seem at first sight that these experiments would at any rate illustrate the problem of the permeability of the Fallopian tubes. But, even here, their value is small. They may prove that great force is necessary to drive fluid along these canals; and that, unless the cavity of the uterus be closed below, as at the cervix, fluids will rather regurgitate than run onwards. But it is certain that in some of the cases where fluid injected into the living uterus ran along the tubes, the accident could not be accounted for by the very small amount of injecting-force employed. Another power, therefore, must have been in action and this could be no other than that exerted by the uterus itself contracting spasmodically upon the irritating fluid thrown into it. This force, the lower or cervical orifice of the uterus being closed, would pump the fluid onwards into the tubes.

J. Whitehead, in a valuable practical paper (*Brit. Med. Journal*, 1873), suggests that fluids may be carried onward into the peritoneum by capillary or ciliary action. He prefers the use of solid or unctuous substances.

Again, it is not necessary for the production of alarming or even fatal accidents, that the fluid should run along the tubes. The fluid injected into the cavity of the uterus may cause metritis, and the inflammation may spread to the adnexa and to the peritoneum. Or severe pain, shock and collapse may be the immediate and simple result of the irritation produced on the uterine superficies by the contact and retention of the fluid. The agony attending some cases of dysmenorrhœa is simply due to the irritation set up by retained blood causing uterine contractions or colics. The pain, the prostration, the other nervous phenomena attending dysmenorrhœa are sometimes as severe as those attending intra-uterine injections.

In some unfortunate cases, as in one related by Tissier, the fluid injected has been, not simply of styptic and coagulating power, but actually caustic. It ought to be needless to point out so fundamental an error. But it has been committed more than once; and the fault of the operator has been assigned to the method.

It is not even necessary that fluids should be injected into the uterus at all. I have seen pain and collapse so severe as to cause the utmost anxiety for the result, follow an ordinary injection of weak sulphate of zinc into the vagina. This occurred in the case of a lady, whose maid was administering, as she had often done before, a zinc solution, by means of a Higginson's syringe. The cervix in this case was patulous, but it is certain that the pipe of the syringe was not inserted into it. She recovered in some hours, no inflammation supervening.

It will further be remembered that the mere touch of a sound or bougie against the fundus uteri will in some cases produce severe pain, and even prostration.

Again, symptoms resembling in character and severity those caused by injected fluids, are occasionally observed when solid or unctuous substances are used, which cannot from their nature flow along the tubes, which must, in short, act *in loco*.

Thus, Aran says he has known three cases of fatal peritonitis from actual cauterization of the os uteri, and one case of fatal ovaritis from the application of Vienna paste.

I have known the most severe pain and prostration followed by hemorrhage and metritis, caused by the application of solid nitrate of silver to the interior of the uterus; and I have seen fatal metritis and peritonitis follow the simple application of nitrate of silver to the cervix uteri.

The severity of the accidents is not always explained by the nature of the fluids injected. Alarming symptoms have followed the use of comparatively weak solutions. It has been supposed in these and other cases that the untoward phenomena were due to the forcible propulsion of air along with the fluid. In some cases this hypothesis may be well founded. But I think its importance has been exaggerated. It is even doubtful whether a quantity of air at all calculated to produce serious distress can be driven into the vessels or tissues of the unimpregnated uterus; and the small quantity that might possibly run along the Fallopian tubes into the peritoneal cavity could hardly do much harm.

One all-important caution is to be religiously observed, namely, *never to use any topical application to the uterus or vagina, or to perform any surgical operation upon the uterus, when a menstrual period is impending or present.*

It is at this time when the menstrual flux is imminent, when the nervous system is at its acme of excitability, that even slight causes are sufficient to light up acute inflammation. At this time, it may be said, the uterus resents all interference.

Dr. Cohnstein<sup>1</sup> gives a careful historical survey of the practice and opinions of those who have related their experience upon this subject. The general conclusion arrived at is that injection of very powerful caustics is likely to cause inflammation of the uterus and peritoneum, or severe prostration and uterine colics; and that these dangers are less urgent if care be taken first to dilate the cervix.

Dr. Lente<sup>2</sup> discusses this question, passing under review the various topical methods of treating disease of the cavity of the uterus. Iodine in solution he has known cause intense pain and alarming collapse, which, however, passed away, no further bad effect ensuing.

The leading gynecologists of New York have also discussed this question. Instances of serious accidents were adduced. The general opinion seemed adverse to the use of intra-uterine injections, whilst Dr. Thomas was especially emphatic in his condemnation.

To avoid the dangers of intra-uterine injections, several precepts have

<sup>1</sup> Beiträge zu Chronischen Metritis, 1868.

<sup>2</sup> New York Journal of Medicine, 1870.

been enjoined. The great object aimed at is to avoid or lessen the risk of the fluid running along the tubes. This it is sought to attain—

1st. By securing free dilatation of the cervix uteri before injecting, so that the fluid may readily run back into the vagina. For this purpose the preliminary use of laminaria-tents is advised.

2d. To secure against narrowing of any part of the uterine canal by flexion or angulation.

3d. By using only graduated quantities of fluids, and injecting very gently and slowly.

4th. By using a double canula, so as to secure a return-current. To effect this the more surely, the openings of the canulæ at the uterine end are made at different levels.

I have not much faith in the double canula. The end which should serve for the return-current is liable to be choked. The preliminary free dilatation of the cervix and the use of gentleness in propelling the fluid should never be omitted. But I do not believe that the observance of these precautions is an absolute guarantee against accidents. It is probable that the mere forcible impact of any fluid striking upon the inner surface of the uterus, especially upon the fundus, may cause severe pain and prostration. Since nothing is gained by forcible injection, this consideration affords additional reason for injecting with all possible gentleness. Hence, it is well to use injecting-pipes having lateral openings of very fine calibre, so as to "pulverize" the liquid. I strongly advise not to use injections at all in cases of marked flexion of the uterus. Even if we dilate the cervix first by tents, and maintain the uterus erect during the injection, we cannot always be sure that the flexion will not be reproduced, so as to prevent the issue of the fluid; and it must not be forgotten that it is especially in these cases that the uterine cavity is likely to be enlarged, and the Fallopian tubes dilated.

The general conclusion at which I have arrived is to restrict the use of intra-uterine injections within the narrowest limits. I rarely employ them now, except in cases of urgent danger from metrorrhagia.

*Danger of Vaginal Injections.*—It must not be lost sight of, that even vaginal injections are not free from danger. Lorain (*Gazette des Hôpitaux*, 1873) relates the case of a girl suffering from gonorrhœal vaginitis, who used an injection of a small quantity of a weak solution of nitrate of silver. It was made slowly, and with a glass syringe. This was followed by acute pain, rise of temperature, and vomiting. She mended sensibly for two or three days, but died suddenly on the fourth day. No tympanites. Suppurative inflammation was found on the mucous membrane of the uterus. The Fallopian tubes were filled with pus; pus was also found in the peritoneal cavity, and there was diffuse peritonitis.

Lorain cites cases in which exploration or simple cauterization of the cervix has caused death, from Bourdel and Martin César, Dolbeau, Béhier, and Leteculier; and from Jobert, one in which death followed the actual cautery to the os externum. Lorain adopts the view already expressed, that the danger arises from the contractile action of the Fallopian tubes and uterus, and the nervous excitability of the ovario-tubo-uterine system. The injection plays but a minor part. In the particular case

related by him it is probable that death was caused by the spasmodic contraction of the uterus and tubes driving the foul pus in them into the peritoneum. The nitrate of silver injection merely excited this contraction.

We may obtain almost all the advantages that injections are capable of giving by other means. For example, the same agents which are so useful in the form of solutions for injection, may be applied either by swabbing, or solid, or in the form of ointment. Thus, where the use of chromic or nitric acid, perchloride of iron, iodine, or bromide is indicated, these agents can be applied soaked on a sponge or piece of cotton, or on a glass or hair pencil, having previously well dilated the cervix. Nitrate of silver is far better applied in the solid form. Even then it is liable to cause severe colic. The risk of this may be lessened by reducing the caustic by fusing it with equal parts of nitrate of potash.

The ordinary way of using the solid nitrate of silver, that is, by holding a piece of the stick in a forceps or porte-crayon, is objectionable. The piece may fall out or break, and a fragment left behind in the cervix or body of the uterus may give rise to intense agony, hemorrhage, and even metritis. To avoid this accident I have for many years used the contrivance figured p. 154 (Fig. 50). This is far the best way of applying nitrate of silver to the os and cervix uteri, and it is the only safe way of applying it to the interior of the uterine cavity. The armed end of a probe may be passed into the uterus without the speculum, although the aid of this instrument is sometimes convenient. For example, unless the armed probe is protected by a canula, the caustic will first touch the vulva and vagina in its passage, which is apt to have unpleasant effects, and the guiding finger of the operator will be stained.

A very useful topical application to the mucous membrane of the cervix and body of the uterus is sulphate of zinc. The value of this agent, when applied to the relaxed or morbid mucous membrane is familiarly known. How to apply it to the uterine mucous membrane is therefore a matter of great interest. A solid stick of two or three grains can be carried quite into the uterus without having touched the vagina by the way by means of my canula (Fig. 51, p. 154), now generally sold by instrument makers.

It is a great advantage of this contrivance that the use of the speculum is quite unnecessary after it has aided in establishing the diagnosis which supplies the indication in treatment. When the instrument has gone the proper depth, the piston pushes out the stick, and the instrument is withdrawn, leaving the stick to dissolve. This it soon begins to do, and by its speedy effect in constringing the mucous membrane, it keeps itself *in situ* until it is completely dissolved.

Nitrate of silver reduced by admixture with nitrate of potash may be used in the same way. So may persulphate of iron, but this should be considerably reduced. When used nearly pure I have known it cause severe colic and bleeding.

A most precious way of applying astringents, caustics, solvents, or alteratives to the interior of the uterus, is in the form of ointment or pasma. In this way almost any substance may be applied. Where grease is objectionable as a vehicle, a pasma of suitable consistence may

be made by glycerine, vaseline, or other substances. In this form we may use remedies which cannot easily be applied in any other way. For example, we can hardly use bromine, or iodine, or mercury in a solid shape; and to use them in the liquid form is open to the objections already discussed. Almost anything can be made into an ointment or pasma; and we thus get a complete practical command over a large range of useful agents.

When the object is to pass liquids as nitric acid, or tincture of iodine directly into the cavity of the uterus, without touching the vagina or cavity of the cervix by the way, the best plan is to use the piston-catheter above described. This can be done without the speculum; a very great advantage, since it is almost always much easier to pass a sound or tube into the uterus under the guidance and aid of a finger. But where a slight contact of the fluid with the passages on the way is of little moment—and this applies to tincture of iodine—a readier way is to twist a bit of cotton-wool on the roughened probe (Fig. 50), and having charged it by soaking in the fluid, to pass it into the uterus, under the guidance of a finger on the os externum. If properly twisted on the probe there is no fear of leaving the cotton-wool behind. The instrument now known as Playfair's probe is an adaptation of the one referred to.

To introduce ointment into the cavity of the uterus, the instrument figured at p. 155, Fig. 52, is both convenient and effective. It is used without aid of the speculum. It is charged by dipping the end into the ointment. This carries a sufficient quantity into the uterus, when, by pushing home the piston, the ointment is deposited there.

Vaginal lotions of tannin, sulphate of zinc, acetate of lead, or alum, render important aid. There is often some complication of chronic inflammation of the fundus of the vagina, with ulceration; and it is useful to remedy this condition. This is the more important since the patient can herself keep up this treatment. A useful mode of medication applicable to the vagina is to wrap about twenty grains of alum in powder in a pledget of cotton-wool; and to insert this in the vagina daily or every other day. This contrivance acts in two ways; first, there is the astringent, corrective action of the alum gradually acting as the powder melts down; and, secondly, the cotton plug acts by keeping the irritable vaginal walls from contact and friction. It secures "rest." Sometimes, however, plugs act as foreign bodies, cause irritation, and are not tolerated. They should not be allowed to remain more than four hours. They can be applied by help of the plug-speculum figured at page 156.

The fuming nitric acid is highly extolled by Dr. Lombe Atthill.<sup>1</sup> He advises first local blood-letting by scarification. Then he proceeds to the swabbing the interior of the uterine cavity with strong nitric acid. In order to secure its due application, he dilates the cervix uteri with a faggot of laminaria-tents; then he introduces an intra-uterine speculum, which makes a channel, protecting the cervix, through which the charged swab can be carried direct to the fundus of the uterus. The uterus is drawn down and steadied by seizing the os uteri with a vulsellum. Dr. Kidd, Dr. Ringland, Dr. Evory Kennedy, Dr. J. A. Byrne, all speak

<sup>1</sup> Dublin Medical Journal, January, 1873.

highly of the efficacy and safety of this method. For my own part, I feel compelled to repeat that experience has amply proved that the dilatation by tents of the cervix uteri, howsoever necessary it may be in some cases, is almost invariably a painful, and sometimes a dangerous proceeding, and that in the cases where nitric acid is likely to be useful, the canal will generally be patent enough without artificial dilatation. The action of the nitric acid itself, I know, is useful, and as safe as most other agents.

*Constitutional treatment of Endometritis* should not be neglected. In the acuter stages salines and sedatives, with a bland unstimulating diet, should be given. In the stages of debility, when nutrition has become impaired, and when the nervous centres have suffered from long-continued impressions of pain, and the wear and tear of illness, neuralgia, in one or more of its numerous forms, is almost sure to be developed. Remedies presumedly directed *ad hoc*, constantly fail, unless, indeed, the exhausting disease, the endometritis, be cured. But still, the use of tonics and other remedies calculated to improve nutrition, to procure ease from pain, to regulate the secretions, should go on *pari passu*.

Copaiva, which may be given in the form of capsules, appears to possess some virtue in restraining secretion from the mucous membrane of the uterus, although it is less to be depended upon than in the case of the lungs or bladder. Ergot and digitalis are also at times useful; quinine, bark, and strychnine, I think, are even more so.

Purgatives become of essential importance. Saline aperients, aloes, an occasional mercurial alterative, generally combined with belladonna, give the best results. Aran speaks highly of aloetic enemata. Indeed, no indication is of more general application than that of keeping the rectum free from accumulation.

Exercise should be regulated by the patient's strength, and her liability to pain. A sense of weight, of oppression, of pain, in the pelvis, extending down the legs, should be taken as a warning to rest. Hip-baths and the consequent friction bring some of the benefits of exercise.

When the active symptoms have been subdued by local treatment, the stimulating saline, sulphur or iron waters will be useful in confirming the cure. Hip-baths of plain cold water, combined with vaginal irrigation, often render great service. But in most cases warm baths are safer and more useful.

There is a *form of inflammation of the cervix*, chiefly limited to the mucous membrane, unconnected with pregnancy, which may also be called *traumatic*. It is the result of undue or awkward sexual intercourse, associated or not with infection or local poisoning. Although most frequent in young married women, I have seen a similar condition independent of sexual intercourse. In some of these the cause was obscure; in others the disease ensued upon cold or violent exertion. The patient complains of pain, more or less acute, in the centre of the pelvis, radiating to the hypogastrium and groins. She stoops in walking, in order to relieve the pain. Any exertion quickly induces such pain and exhaustion that she is compelled to rest. There is often some degree of constitutional irritation and disturbance of the function of the stomach. Sometimes there is leucorrhœa; but often the reply to questions upon this

point is in the negative. On examination, it may be found that there is a copious accumulation of muco-puriform matter in the fundus of the vagina, where it lodges, being retained there as in a sac by the contraction of the vagina below. Such a collection may be voided unconsciously during defecation. The rugæ are prominent, angry-red; copious, epithelial secretion is found between the rugæ, and viscid glairy secretion is seen oozing from the cervix uteri. The membrane covering the vaginal-portion of the cervix may be smooth, or may present spots of epithelial abrasion; but it is in either case intensely red, injected, and somewhat swollen. This form of disease not uncommonly induces vaginismus. Dyspareunia is often very marked. The treatment consists in "rest." Injections of lead are especially useful. In aggravated cases, especially those marked by vaginismus, the vaginal-rest, or a cotton wool plug soaked in glycerine, renewed daily, will be of essential service, and will greatly shorten the period of treatment.

One form of endometritis leads to exfoliation in mass of the mucous membrane. This constitutes the *dysmenorrhœa membranacea*, which has been described in Chapter VIII. In some cases of this kind I have known inflammation affect the mucous membrane of the cervix, as well as of the body. The epithelium of the os uteri, and presumably that of the cervical canal as well, being thrown off, leaving a pseudo-ulcerated or denuded surface, although there had been no labor.

If there be a *tubercular diathesis* the case is more troublesome still, probably incurable; for tuberculization is rarely limited to the uterus.

The *syphilitic taint* is commonly acquired through the gestation of a diseased ovum, and often first becomes manifest after the birth of a child, at times showing marks of the disease, or, more frequently, after the premature birth of a dead child, or after an abortion.

The syphilitic mucous membrane is thickened—constantly tending to rapid superficial decay; and its regeneration is imperfect. The taint remains, as in the skin, for an indefinite time. Such a mucous membrane is unfitted to develop a healthy decidua, and yet it is not a bar to impregnation. Hence conception after conception issues in abortion; and every time the new mucous membrane is reformed with the same characters. It may lead to protracted retention of placental remains after abortion as well as after labor at term, and greatly disposes to sub-involution. More or less chronic engorgement or inflammation of the body of the uterus commonly attends. Unlike the tubercular diathesis, the syphilitic commonly affects the cervix as well as the body of the uterus.

There is always hyperæmia, sometimes chronic inflammation; and the menstrual disposition is towards excess in loss. The appearance of the vaginal-portion has struck me in many cases as being peculiar, so that I have thought I could recognize the syphilitic complication by the sight. But in practice we are not often obliged to trust exclusively to the local symptoms. It is rare that the history and the presence of symptoms in various parts of the body do not reveal the nature of the case. Gummata about the vulva and anus, sore throat, fissured or ulcerated tongue, characteristic eruptions on the skin, falling of the hair, will generally be found.

Leucorrhœa, the discharge being often more offensive than usual, is a constant symptom.

The *treatment* must obviously be both constitutional and local. Iodide of potassium, occasionally iodide of mercury, bark, should be persisted in for several months. A cure cannot be effected in a few weeks. The calomel vapor bath of Henry Lee is an excellent remedy. Baths of Vichy salts, or better still, the internal and external use of bromo-iodic waters, as those of the Woodhall Spa, Kreuznach, Carlsbad, or Wiesbaden, will render eminent service.

The best local remedies are the iodide of lead or iodide of mercury ointment applied inside the uterine cavity. The direct contact with the diseased mucous membrane I have found especially beneficial. Sometimes the part may be touched with solid nitrate of silver, or a small stick of sulphate of zinc may be inserted. The applications should be made every fourth or fifth day between the menstrual epochs.

The local treatment may be partly carried on by the patient herself. Sulphate of zinc injections daily will be of service, although they touch the vagina and vaginal-portion only.

Should pregnancy occur, and it is to be deprecated until the mucous membrane shall have recovered its soundness, the local treatment must be stopped. But the constitutional remedies should be sedulously persisted in. We may usefully combine with the iodide of potassium five- or ten-grain doses of chlorate of potash. In this way abortion is sometimes averted.

*Growths or excrescences* vary according as they are developed from the mucous membrane of the cavity of the uterus, cervix, or vaginal-portion.

1st. The growths in the mucous membrane of the body occur in the form of circumscribed elevations, two or three lines thick, in flat *plaques*, the surface of the mucous membrane being tumefied by catarrh. These puffed elevations are red, shiny, velvety, smooth. On scraping them a milky fluid exudes, which under the microscope exhibits glandular epithelium, sometimes transparent vesicles and colloid bodies. Specimens hardened in chromic acid, and thin slices treated with glycerine, exhibit areolar stroma of connective tissue with utricular glands, partly enlarged, partly obliterated. The vascularity of these growths is sometimes extraordinary. Sometimes with the naked eye one can see yellowish white dots which under the microscope are recognized as obliterated glands with fatty degeneration of epithelium. In other cases small vesicles are visible in these tumors, resulting from constriction, and cystic degeneration of the utricular glands. This latter forms the transition from these tumors to vesicular polypi of the uterus. They vary in size from one inch to more in diameter.

The sub-mucous uterine tissue becomes hypertrophied into connective-tissue outgrowths (*sarcomata*), which gradually form the so-called *fibrous-polypi*, in whose interior are often contained separated portions of elongated uterine glands, or gland-tubes, of new formation, which degenerate into cysts (*cysto-sarcoma adenoides*).

Sometimes the uterine mucous membrane degenerates into a more or less hard, richly-nucleated, fibrillous, callous, connective-tissue substratum,

in which the glands have shrunk away. Often it is studded with small cysts, containing mucus or colloid, the remains of the separated portions of the uterine glands.

CYSTIC ENDOMETRITIS; CIRCUMSCRIBED PROLIFERATION OF THE UTERINE MUCOUS MEMBRANE, VESICULAR POLYPI.

The development of cystic tumors at the cervical orifice out of obstructed glands is not uncommon. It is less frequent in the cavity of the uterus, but still it is occasionally observed as a result of chronic endometritis. The utricular follicles may, as we have seen, be greatly hypertrophied. They may be seen as small rounded tumors, projecting as hemispheres, or sometimes pedunculated; their walls are transparent; they feel like little-resisting grains, slightly elastic. They range from the size of a pin's head to that of a small nut. They contain a transparent liquid. They are often associated with the so-called fungosities, granulations, or vegetations. Ch. Robin has shown that these bodies are formed of exactly the normal elements of the uterine mucous membrane. There is a disposition to fatty degeneration at their base.

In some rare cases the elongation of the uterine glands takes place in both directions, that is, into the uterine cavity on the one hand, and into the uterine parenchyma on the other.

These little cystic growths sometimes form a cluster, hanging round the upper end of the cervical canal, near the os internum; or may be more or less isolated; or they may occur in groups or singly, near the os externum. When they form in the cervix the os externum is usually patulous, and the finger passed into the cavity feels them as rough projections, or as soft pedunculated bodies rolling under the finger. Sometimes, as in a case figured by Lancereaux, these cervical cystic growths are associated with a similar formation in the body of the uterus. In this case the enlarged uterus contained a thick viscid fluid; its mucous membrane was red, injected, had at its fundus a mammellated mass, grayish, formed of vascular connective tissue, in which were found multiple cavities filled with clear serosity. Sometimes a group will form a distinct polypoid outgrowth. Of this there is a striking example in the museum of St. Thomas's Hospital.

These changes of the mucous membrane probably include some of the most difficult pathological and therapeutical problems. The "fungosities," "carcinomas," "excrescences," so often associated with some degree of enlargement of the body of the uterus, attended by hemorrhage, and inducing cachexia, not seldom, by their obstinacy and other characters, simulate malignant disease. Sometimes, indeed, there is good reason to believe that the endometritis is dependent upon, and modified by, a tubercular or cancerous complication. But even apart from such complication, the changes of structure resulting from long-standing slow congestion or inflammation are exceedingly troublesome.

They may sometimes be distinguished from the malignant disease which attacks the lining membrane of the uterus after the menopause by this circumstance: if there have been a distinct interval after the menopause, marked by absence of blood-discharge, then the sudden appear-