ON THE

PATHOLOGY AND TREATMENT OF UTERINE CATARRH AND INTERNAL METRITIS.

By E. J. TILT, M.D.,

SENIOR PHYSICIAN TO THE FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, AND TO THE PADDINGTON FREE DISPENSARY FOR WOMEN AND CHILDREN.

Before drawing attention to several pathological conditions of the mucous membrane lining the body and neck of the womb, which have hitherto been included by pathologists under the denomination of uterine catarrh and internal metritis, I must be permitted to glance at the present state of uterine pathology.

If we consult the numerous writers on diseases of women previous to 1816, when Recamier showed the advantages to be derived from an ocular examination of the womb, and even some of the works written since that time, we shall find great space given to leucorrhœal and uterine discharges, to displacements of the womb, and to cancerous affections and ulcerations; but that the various organic lesions of the os uteri, the erosions, exulcerations, ulcers, and other forms of idiopathic inflammation of the neck of the womb, are either not described at all or very imperfectly. It matters not that a speculum uteri has been discovered at Pompeii, nor that Morgagni, in his 14th and 46th epistles, should have stated that, by means of an ivory tube introduced into the vagina, he was enabled to see an ulcer on the neck of the womb, to Recamier will be given the credit of having originated a vast improvement in uterine pathology. By showing the possibility of an ocular examination of the womb, and urging the frequent necessity of doing so, Recamier enabled his disciples to apply to diseases of the womb the recognised sound principles of general pathology; and if we consult the best pathologists of the day, either in France or in England, we shall now find the various forms of uterine inflammation more or less carefully studied, while leucorrhœa occupies less and less space.

Pathologists are as much divided abroad as at home respecting the terms by which we should designate idiopathic morbid lesions of the os uteri, which frequently cause leucorrhœal discharges; but I scrupulously adhere to truth in asserting that, in the conviction of the great majority of enlightened practitioners in France, Germany, America, or at home, chronic leucorrhœal discharges generally depend upon organic lesions of the os uteri and its vicinity. My paper does not refer to these lesions, for their pathology and the treatment they require are now well known, having been elaborately treated by many writers. But although lesions of the os uteri are the *most frequent* causes of leucorrhœal discharges and uterine symptoms, these may likewise be caused by various morbid states of the mucous membrane lining the womb. So long as the lesions affect the os uteri, the hand can heal what the eye can see, and the treatment is satisfactory; or if relapses occur, through the patient's negligence or the neglect of constitutional measures on the part of the medical adviser, they can again be cured; but when the lesions exist beyond the field of vision, in the lining membrane of the neck and body of the womb, great uncertainty reigns respecting their diagnosis and treatment: for although during the last few years many French pathologists have written on what they call *uterine catarrh*, when their cases are carefully investigated, it is often evident that they cannot be admitted as samples of simple inflammation of the uterine mucous membrane; for ulceration may exist in the cavity of the neck of the womb, and remain undetected because unsought-for.

Can we wonder after all that there should still be much obscurity in this department of uterine pathology, when, until 1842, most anatomists did not recognise a mucous membrane in the body of the womb, and had but an imperfect knowledge of that which lines its neck. The structure of the mucous membrane of the body of the womb, was first clearly made out by Coste, and we owe to Dr. Tyler Smith the best description of the mucous membrane lining the neck of the womb. In the course of this paper, we shall have to refer to some of the results arrived at by these investigators, I now merely observe that the different anatomical texture of the two membranes permits us to understand why the lesions of *one* are not *necessarily* transmitted to the *other*, although this often occurs.

Inflammation of the mucous lining-membrane of the neck of the womb may be *acute* or *chronic*. In the *acute* form, pus, alone or mixed with mucus or blood, may be seen to ooze out of the os uteri. If it be susceptible of being dilated by the valve of a bivalvular speculum, the mucous membrane may be found very red or ulcerated. Hence two forms of acute inflammation of this membrane, but as they have been well-described, I shall merely observe, that this acute form of inflammation is generally called *uterine catarrh* by French authorities. It was, for instance, in seven cases of this description that Becquerel tried the effects of uterine injections. As I shall hereafter mention, most English pathologists consider the discharge to come as well from the body of the womb as from its neck. Believing this to be an error, we suggest that the term *catarrh* should be reserved for cases of inflammation of the lining membrane of the neck of the womb in which it is but little swollen, attended by a small amount of heat, and by a discharge oftener mucous or sanious than purulent; or, in other words, catarrh is a subacute inflammation, and as this affection never attacks the body of the womb, it would be better to adopt the expression of *cervical catarrh*.

The subacute, or chronic inflammation, of the lining membrane of the neck of the womb, is well worth attention, on account of its frequency, an assertion corroborated by many authorities, as well as by Melier, who was one of the first to notice it in the "Mémoires de l'Académie de Médecin." Burns and Jewell have recognised it as a *subacute affection of the cervix uteri*. Lisfranc and F. Churchill have called it *acute uterine leucorrhœa*, and Dr. Bennet, cervical catarrh. Its long duration and tendency to relapse, and to cause erosion, or ulceration of the os uteri, renders it still more deserving of your attention. The following cases will exemplify the complaint:—

Case 1.—A year ago a lady was placed under my care by Dr. Stone. She is tall, stout, aged twenty-six, and of a florid complexion, but the pulse is habitually weak. She first menstruated at thirteen, and the function was regularly performed, and with little pain. Married at twenty-one, but never conceived. At twenty-two her feet got very wet at a menstrual period: the flow was not checked, but from that time she became much subject to back pains, and to a constant pain in the left ovarian region. She had a slight brown discharge during the whole intermenstrual period; was nervous; had hysterical symptoms, such as involuntary tears and choking, but no fits. Intercourse was seldom painful, and did not increase the discharge or the usual pains. Menstruation retained its regular type, but was accompanied by a much more abundant flow, more pain, and by hysterical fits. This state of things had lasted two years when I was consulted. There was then considerable pain on making a digital examination, and I found the neck of the womb spotted with numerous exulcerations. These were cured by several applications of nitrate of silver and vaginal injections, with a solution of acetate of lead, but the back and ovarian pains remained unabated, so did the hysterical symptoms. There was no lesion to account for these symptoms, but as on pressing laterally all down the neck of the womb I gave considerable pain; and as the brown discharge continued, though the body of the womb was neither painful nor enlarged, I concluded that the lining membrane of the neck of the womb was subacutely inflamed, and, with the view of substituting a healthy inflammation instead of one of a low type, I painted the inside of the neck of the womb with the solid nitrate of silver. This was followed by much abdominal pain and protracted hysterical fits. A second application, made ten days afterwards, being followed by similar accidents, I resorted to the application of tincture of iodine inside and outside of the neck of the womb. This was done every four or five days for the first three months, and then only once a week, while at the same time the patient took thirty drops of Bullock's syrup of citrate of quinine and iron three times a day. Menstruation continued extremely profuse for the first three months of treatment, being often accompanied by hysterical fits; but the morbid symptoms gradually abated, and the patient has been for the last six months free from all suffering, uterine discharge, and hysterical symptoms.

Case 2.—Mrs. C——, aged twenty-six, of middling stature, delicate complexion, light hair, and with all the characteristics of a lymphatic constitution, consulted me four years ago. She first menstruated at fourteen, and the flow was regular and attended by little pain until about her eighteenth year, when the flow was suddenly checked by remaining several hours in damp clothes. Intense pain was felt in the right ovarian region, and pus is said to have been passed several times by the vagina. When I was called in, the lady suffered from intense back pain, profuse discharge of viscous fluid from the uterus, mild hysterical symptoms, and the os uteri was slightly ulcerated. A few applications of nitrate of silver healed the ulceration, and the patient took sulphate of iron pills and the bitter infusion of

gentian. Notwithstanding the healing of the erosions, the symptoms remained about the same, and I found, as in the preceding case, that no pain was felt when the body of the womb was pressed, but a considerable amount when lateral pressure was made to the neck of the womb. The uterine symptoms were alleviated by the application of the solid nitrate of silver to the internal surface of the neck of the womb, and instead of white the discharge became brown. This was checked by seven or eight applications of the tincture of iodine, and the patient experienced no further suffering. A few months back, however, I was again sent for, as there was a fresh attack of uterine pain and brown discharge, which was cured by topical applications of tincture of iodine, by the internal exhibition of steel, and by a sea voyage. In this case also the patient has never conceived. Menstruation remained regular, and there was no flooding.

These cases are given to illustrate, not to substantiate, my practice; so without detailing others I shall proceed to the remarks they suggest.

Causes.—The principal causes are—imprudences committed during the menstrual epochs; the excitements of a prurient imagination, which too often lead to masturbation; the too frequent practice of matrimonial rites; miscarriages and confinements.

Symptoms.—The presence of the usual uterine symptoms, in absence of all visible lesions. A digital examination is sometimes painful to the os uteri; at other times not. The same holds good with the application of the speculum, or with matrimonial intercourse; but pressure applied *laterally to the neck of the womb* gives more or less pain, which is not the case in the healthy state. A glutinous discharge is seen oozing out of a somewhat turgid os uteri, and long threads of it may be removed; but when uncomplicated by erosions, ulcerations, or vaginitis, we have not observed that the discharge was frequently abundant. Whether the mucous follicles lining the neck of the womb can be affected by some other lesion, so as to warrant Dr. Tyler Smith's position, that the mucous membrane of the neck of the womb is the most frequent origin of leucorrhœa, remains to be decided by further researches; this opinion having been also held by Boivin and Duges, it demands very careful consideration.

Sometimes the discharge is of a brown colour, as in the cases related; not mucus streaked with blood—not the sero-sanguinolent discharges of the body of the womb, but an intimate mixture of mucus and blood, as in the rusty sputa of pneumonia. This discharge we consider to be very characteristic of subacute inflammation of the mucous lining of the neck of the womb; and on a microscopical examination, it is found to contain globules of blood more or less difformed, and mixed with mucus and epithelial scales. It is very annoying to women, from the manner in which it stains the linen. This discharge may last the whole intermenstrual period, or only during the ten days which follow the flow; and we have found iodine applications of great utility in such cases. Judging from my own practice, I believe that the *viscous* discharge is more frequently met with than the *brown*, which generally accompanies a very mild type of inflammation.

Chomel, in his Clinical Lectures, has drawn attention to cases in which there is a red stain on one of the lips of the os uteri; instead of being sunken, it is slightly raised, of a vivid redness, velvety to the touch, not surrounded by pus, but by the well-known viscous fluid of the neck of the womb. This is no more an ulceration than the port wine stains or erectile spots on the skin, and may be considered an exaggerated development of the bloodvessels of the villi, which in the normal state are covered with cylindrical epithelium, and, when hypertrophied, form a piece of living crimson velvet, which in four instances I have seen lining part of the cavity of the neck, giving rise to the symptoms I have just described. Such lesions predispose to metrorrhagia, and their detection suggests the necessity of active local treatment, as in an exaggerated instance of this lesion which was related by Dr. Forget to the Society of Emulation at Paris. A woman had experienced repeated metrorrhagia; and on being examined, the neck of the womb was found lined with a soft, red, and bleeding substance, elastic, crepitating, and offering most of the characters of erectile tissue. This surface was repeatedly cauterized, and after a few months of treatment, was completely cured. We think that Dr. Kennedy, of Dublin, has described similar appearances under the name of *doughy* or *boggy* ulcers of the womb. In my four cases, the women had been several years married, and had been sterile. This is in harmony with Chomel's experience.

Prognosis.—Dr. Kennedy has stated that "although the inflammation of the internal surface of the neck of the womb may be borne without great inconvenience for years, still it leads to the serious implication of the sub-mucous tissues, which undergo a change which may be termed *uterine ramollissement*, attended by frequent hæmorrhages, unhealthy, grumous, and muco-purulent discharges." Now, with due deference to high authority, we think that Dr. Kennedy has described exceptional cases. All mucous membranes may remain chronically inflamed for years, without entailing more serious lesions than were first visible, and in general the mucous membrane lining the neck of the womb may remain subacutely inflamed, without causing anything like *uterine ramollissement*, but it fosters hysterical phenomena, keeps up a vaginal discharge, and causes repeated relapses of erosions, or ulcerations of the neck of the womb. I believe Dr. Tyler Smith's views are correct, and that the inflammatory action of the glandular mass of the neck of the womb, determines the too abundant secretion of its alkaline products, and that, by their presence on the os uteri, accustomed to acid secretions, they cause the rapid shedding of the epithelium, with that destruction of the subjacent villi which warrants the name of erosion or exulceration. Whatever form it assumes, all observers agree that subacute inflammation of the mucous lining of the neck of the womb is a frequent cause of sterility.

Treatment.—Dr. Melier advised the injection of emollient fluids into the cavity of the neck of the womb, but they would be ineffectual to modify the inflammation of the mucous membrane, while their entrance into the cavity of the body of the healthy uterus might be attended by dangerous results. If emollient injections into the cavity of the neck of the womb are objectionable, how much more so must be injections of a solution of nitrate of silver, as used by some French practitioners for what they call *uterine catarrh*. Although the cavities of the healthy body and neck of the womb are separated by a stricture, sufficiently tight to prevent the easy passage of the uterine sound, nothing proves that this stricture could prevent the passage of fluid, and the numerous and fearful accidents which have attended the practice of uterine injections, permit the belief that the stimulating fluids sometimes cause fatal metro-peritonitis, by passing into the healthy fundus uteri, and, perhaps, into the peritoneum through the oviducts. Dr. Bennet states, in his work on Uterine Diseases, page 269, "that nothing but strong cauterization with acid nitrate of mercury, or the potassa fusa cum calce to the lining membrane of the neck of the womb can overcome the tenacity of the disease." If this refers to exceptional cases, I commend the practice, but in cases similar to those related, I prefer the tincture of iodine, or the iodide of iron, because it enables us to effect a solid cure, without inducing much pain, or running the chance of the serious accidents which sometimes follow caustic applications. After clearing away the uterine mucus I apply the tincture of iodine with a *sable* paint-brush, introducing it as far into the neck of the womb as can be done without using much force. On withdrawing the brush, I paint the vaginal portion of the neck of the womb. This is a mode of practice that I have now used for several years, and I can safely recommend it, as I find that something similar has been recommended by Dr. F. Churchill. A drachm of acetate of lead, in a pint of decoction of poppy-heads, forms the best injection in such cases.

With regard to the crimson elevations on the mucous lining of the neck of the womb, tincture of iodine is of little use. The solid nitrate of silver is the best application, or the acid nitrate of mercury; and it must be borne in mind that this condition is often more difficult to treat than simple ulceration.

With respect to constitutional measures, I shall merely say, that in all chronic uterine affections the practitioner will find a sheet-anchor in the various preparations of iron, and that the syrup of citrate of quinine and iron, or the syrup of iodide of iron, are very good preparations.

York-street, Portman-square.