practically, and, in a vital sense, of what they are pathologically. Thus, knowing these five, go where we will, we find ourselves not altogether strangers to the nature of diseases which we may never have seen before; and not quite unapt for their management, though we may never before have been called to treat them. Of these five, and the rest that fall within the same category all the world over, none admit of cure; none either require or tolerate a special remedy. With them it is all an affair of Treatment, and of choosing the right indications in particular cases, and dealing fitly with them by whatever means they require.

These are a few simple things rescued (so to speak) from a great throng. They claim, however, the nature of principles, being verified by the numerous instances which they cover and explain. And, indeed, the times we live in call upon physicians for new and more strenuous endeavours after principles in the exercise of their art. For it is being undone for want of them.

Further, these five diseases have been all recognised as fevers, and all so denominated; variolous fever, scarlet fever, rubeolous fever, typhus fever, typhoid fever. And it is likely enough that many physicians, whatever speculations they may have in reserve, take their familiar notion of fever from what it has appeared to them to be in these examples. And no bad notion either. But, however this may be, now is a fair occasion for what remarks I presume to make on the same subject, even Fever.

THE QUACKERIES OF THE AGE. "The difficulties inherent in all medical questions are increased tenfold in the examination of those sciences falsely so called to which I have referred. If medical men highly educated, and occupying a distinguished social position, have been seduced from the sober paths of their profession into new and ephemeral systems, which fashion sanctions and imposture sustains, we need not wonder at the temporary success of wilder theories where the illiterate are the adepts, and the ignorant are the victims. It is among the middle and the upper classes chiefly that this credulity and love of the marvellous is most conspicuous. It is rank and luxurious among the votaries of gaiety and idleness, who are incapable of continuous thought, and who have, therefore, no faith in those forces in the material world, and in those cosmical laws which are in daily operation around us. Who that is acquainted, even superficially, with the facts of electricity and magnetism, can for a moment believe that similar forces emanate from human hands, rushing through non-conducting materials, floating them even in the air, and imparting to them a knowledge of the past, the unseen, and the future? Who that confides in revealed truth, or has the least knowledge of the relations between our mental and physical nature, can allow himself to believe that impostors, male and female, can summon the dead from their graves, and marshal them under the table, to perform the paltriest tricks that would hardly amuse the inmates of the nursery or the school-room? All such beliefs are the results of an imperfect education—of the want of general knowledge. They are the observations of ill-trained faculties, the cravings of morbid and mystic temperaments, that have been suckled on the husks and garbage of literature and reared on the rank pastures of our mushroom publications. In the past history of our race these superstitions have operated fatally on the happiness of man; and no sooner has science exploded the most rampant, than another starts into its place." (*Sir D. Brewster.*)

Lectures

ON THE

DIAGNOSIS AND TREATMENT OF DISEASES OF WOMEN.

DELIVERED AT ST. MARY'S HOSPITAL MEDICAL SCHOOL.

BY

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DISCHARGES FROM THE GENERATIVE ORGANS OF NON-SANGUINEOUS CHARACTER.

GENTLEMEN,—The diagnosis of the nature and causes of the various kinds of discharges now to be considered is of the greatest possible importance. These discharges are in themselves often a very great inconvenience, and a great source of distress to the patient; and they are not seldom the outward and visible signs of grave and serious disease.

The subject requires to be considered with some attention, not only because the diagnosis is in itself important, but because it is also difficult. Not seldom it is found almost impossible to ascribe some of these discharges to their true source.

The questions we have to solve in a given case are—1. What is the source of the discharge? and 2. What is its cause?

The data with which we must be put in possession in order to answer these questions relate to:—

1. The physical qualities of the discharge itself.
2. The circumstances attending or preceding its appearance.
3. The physical condition of the parts, the uterus, vagina, etc., from which the discharge may or does proceed.

The physical condition of the uterus, vagina, etc., can only be learnt by means of an examination. This method of obtaining information will be considered subsequently; but at present the object is to ascertain how much may be got, as regards the diagnosis, from a knowledge of the physical characters of the discharge itself, and of the circumstances attending its appearance. It not unfrequently happens that the other source of information—that by examination—is not available; and there are, besides, many cases in which it is desirable, for a variety of reasons, that an examination should be avoided. In any case, however, it is necessary to point out the conclusions we are justified in drawing from other data than those obtainable by examination.

Before inquiring into the nature and cause of the various abnormal discharges which proceed from the generative organs, it will be well to describe the characters of the secretions which are naturally formed within the generative passages.

THE NORMAL CONDITION OF THE SECRETIONS OF THE GENERATIVE PASSAGES.

In a state of health, there is poured out from the mucous membrane of the vagina, from the sebaceous and muciparous glands at the orifice of the vagina, from the vulvo-vaginal gland situated one

at each side just within the orifice of the vagina, from the cervix uteri, from the whole of the mucous tract extending from the ostium vaginae to the termination of the Fallopian tubes, a secretion sufficient to lubricate the opposed surfaces of the mucous membrane, which is liable to be physiologically increased in quantity, as during congress, and under other circumstances, and which is liable at any moment also to be increased in quantity pathologically, giving rise, in the latter case, to fluid or other discharges.

Diseased processes are generally exaggerations of the natural ones; and, to apply this in the present instance, we find that leucorrhœa, which is a term applied generally to discharges of the kind now under consideration, is, for the most part, the natural secretion increased in quantity. Hence it is necessary, in the first place, to consider the nature and physical properties of the healthy secretions of the generative passages.

At the orifice of the vagina, we have *sebaceous follicles* scattered over the nymphæ, clitoris, and inner surface of the labia, the secretion of which contains butyric acid, and has a strong and somewhat ammoniacal odour. (Farre.) Around and at the sides of the vaginal aperture, there are many *muciparous follicles* which secrete *viscid mucus*. Further, we have the vulvo-vaginal glands, which secrete a viscid fluid resembling somewhat the prostatic fluid, and having a peculiar odour. (Farre.) The secretions of these glands at the vaginal orifice are liable to considerable increase during venereal excitement.

Regarding the *vaginal mucous membrane*, it may be stated that it secretes a fluid, at first transparent, acid, and mixed with large quantities of epithelial debris. This secretion usually appears at the outlet as a whitish looking secretion, due, as pointed out by Sir C. M. Clarke, to the entanglement of air, just as the saliva forms a whitish accumulation at the corners of the mouth in individuals speaking rapidly. The more decidedly *curdled* aspect of this secretion, occasionally observed, appears to depend on the albumen being precipitated by the acid of the secretion.

The mucous secretion of the *uterine cervical cavity* is of a very different character altogether. The glands of the uterine cervix, first accurately and thoroughly described by Dr. Tyler Smith, are exceedingly numerous, and the apparatus for secretion there situated is, when in a state of activity, capable of producing an enormous amount of secretion. Hence, the extreme importance of this part of the generative passages in all considerations having reference to the etiology and nature of leucorrhœa.

The secretion of the glands of the cervix uteri is not acid, but, as first shown by Dr. Whitehead of Manchester, alkaline. It is, when seen issuing from the crypts of the mucous membrane, transparent, somewhat resembling the mucous secretions of the nasal passages, or white of egg, in appearance, but very tenacious and viscid; it contains many mucous corpuscles, and epithelium of the columnar variety is mixed up with it. The characters, as here described, are lost in the discharge as usually witnessed, after it has passed down the vaginal canal and become mixed with the secretions of the latter surface. The effect of the admixture of the secretions from the cervix and the vagina is that a white soapy or creamy

fluid results. It now and then happens, however, that the cervical secretion escapes from the vagina in the form of masses of coagulated albumen. Ordinarily, and when the parts are in a condition of health, the secretion from the cervix is not probably considerable in quantity. The mucus lubricating the vaginal passages during labour proceeds chiefly from the cervix uteri.

Concerning the natural secretions of the *internal membrane of the body of the uterus* during the intermenstrual periods, we know very little. With the history of the changes which take place during menstruation itself, we are even imperfectly acquainted. And, as a consequence of this, we know very little as to the amount of secretion which this membrane contributes in cases of leucorrhœa. When the coloured discharge of menstruation alone is absent, it is often replaced by a colourless secretion, which appears externally, lasts a few days, and then disappears; and it has been usually supposed that this colourless discharge, coincident with the proper menstrual period, proceeds from the same source as the ordinary menstrual fluid. It has not been proved that this is really the case, although it is extremely probable; it is, however, quite possible that the discharge which appears under such circumstances may proceed, in part at least, from the glands of the cervix.

Lastly, respecting the quantity of these secretions in a state of health, it must be stated that usually they are only sufficient in quantity to lubricate the parts; but that there are not a few instances in which the secretions are much more profuse, and yet without entitling the case to be considered altogether pathological. In some cases, the increase in quantity is purely physiological.

We shall now proceed to the consideration of the

DIAGNOSIS OF NON-SANGUINEOUS DISCHARGES,

which may proceed from the generative organs, and for the removal of which we may be called upon to devise appropriate remedial measures.

The more prominent physical characteristics of the various discharges to which we have now to direct attention, have been made the basis of a rough sort of classification. Thus, there are *watery* discharges, *mucous* discharges, *mucopuriform* and *purulent* discharges. Then, we have discharges of a *sanious* character, in which there is an evident admixture of blood-elements. *Offensive* discharges also form a class, the differential diagnosis of which may be usefully pointed out.

It will be convenient to discuss these several kinds of discharges *seriatim*, indicating as far as possible the characteristics which guide our decisions as to their nature, source, and cause.

Watery Discharges. Discharges from the vagina of a serous or watery character, more or less profuse in quantity, form a class which may be conveniently separated from the other varieties of discharges.

Pregnant women are sometimes the subjects of a discharge of a watery nature, the origin of which is, in all probability, the membranes of the ovum. The fluid may escape gradually, and continue to escape for some time; or the quantity may be greater, but the duration of the same less. The discharge of a watery fluid may go on for some time, and the fœtus may be born at the full time and healthy. If the

discharge of the fluid be accompanied by pains like those of labour, the supervention of a miscarriage is to be feared. In a case of watery discharge from this cause, the abdomen would be large, the uterus increased in size, in fact, the signs of pregnancy would be present. The watery discharge, if in quantity, would have the effect of reducing the size of the uterine tumour.

There is another class of cases in which a watery discharge occurs from time to time; *i.e.*, in cases where the uterus is occupied by the hydatidiform or vesicular mole, "hydatid pregnancy," as it was formerly called. Patients believed to be pregnant increase too rapidly in size, foetal movements are not felt, the mammary symptoms are in abeyance, the whole aspect of the case being irregular, so to speak, and yet there are strong reasons for believing the woman originally to have been pregnant. After a time, slight losses of blood may occur, and slight but repeated discharges of watery fluid, accompanied generally by labour-like pains, or the watery fluid without any blood at all. The cause of the discharge is rupture of the cyst-like vesicles composing the chief part of the degenerated contents of the uterus. Discharge of watery fluid from this cause only occurs after three, four, or five months, or longer, from the supposed date of impregnation. Before that time, the vesicles have not reached such a size as to occasion any perceptible discharge, even if they were ruptured.

Another cause of watery, serous discharges from the vagina, is found in the presence of a peculiar growth on the cervix and os uteri, the *cauliflower excrescence* of Dr. Clarke. The fluid discharged in such cases is described in his brother Sir C. M. Clarke's work as "little more than a clear watery fluid; blood, however, is sometimes mixed with it, or perhaps comes away alone in large quantities." (*Op. cit.*, vol. i, p. 34.) The quantity of fluid discharged is sometimes enormous. Dr. Ramsbotham records a case in which twenty dozen napkins were used in a week. Safford Lee describes the discharge as brownish, like coloured saliva. The symptoms of pregnancy are not, unless by a rare coincidence, present in such cases.

The presence of *polypi* within the uterus is occasionally the cause of profuse watery discharge, of which fact some cases related by Dr. Elkington of Birmingham afford well-marked evidence. (See *Obst. Trans.*, vol. i.) Here the watery alternate with sanguineous discharges, profuse menstruation, and other signs of polypus, are present. The more usual form of discharge attendant on uterine polypi is not, however, that now under consideration. In a case of polypus of the size of an egg, hanging down into the vagina by a slender peduncle, and which I lately removed, there was rather profuse watery discharge, some of the other and more usual symptoms of polypus being wanting.

Sometimes an *ovarian cyst* becomes adherent to one of the Fallopian tubes; or, at all events, in some way, becomes connected with it; the contents of the ovarian cyst pass into the Fallopian tube, thence into the uterus, and flow away gradually from the vagina. The signs present in such a case would be:—previous existence of a tumour in the hypogastrium, or more or less to one side, subsidence of the same, and occurrence of simultaneous watery or serous discharge from the vagina. This mode

of termination of an ovarian cyst is rare; Dr. West only noticed it in one out of sixty-eight cases. The Fallopian tube becomes distended, dropsical so to speak, and from time to time its contents are evacuated into the uterus.

Sir C. M. Clarke refers to another cause of watery discharges from the vagina, the "oozing excrescence of the labia," probably identical with what would be now termed chronic eczematous affection of the skin covering the parts in question, together with a chronic inflammatory condition of the tissues beneath.

Lastly, it is just within the limits of possibility that the watery discharge present may be really an *involuntary escape of the urine* from the bladder, caused either by paralysis of the muscles surrounding the urethra, or due to vesico-vaginal fistula. The urinary odour present in such cases would almost certainly discover the nature of the case.

Mucous and Puriform Discharges. The cases in which discharges having this character are observed, form that large class of cases to which the term "leucorrhœa" is more usually applied. This group of cases differs from those just considered, not only in the physical characters of the discharge, but in regard to the manner of its appearance. Here the discharge is more or less completely continuous. The discharges now under discussion have this in common, that they are more or less opaque. The colour varies exceedingly; it may be whitish, decidedly yellow, yellowish-green, or of any intermediate shade. The consistence of the discharge also varies; it may be viscid, gelatinous, of the consistence of cream, or quite fluid.

Most cases of "leucorrhœa" are of a composite nature; that is to say, the discharge observed at the vaginal orifice arises from more than one source, and results from the mixing of secretions from the cervical mucous membrane, from the mucous membrane lining the vagina, and, in certain cases, also from the interior of the body of the uterus itself.

In most cases, there is a preponderance of secretion from one or other of the sources indicated. The differences in the source of the discharge have been made the basis of a division of cases of leucorrhœa into "uterine" and "vaginal"; the former including cases in which the discharge proceeds chiefly from the uterus (the cavity of the cervix), and the latter including those cases in which the discharge has a vaginal origin.

Certain general deductions may be drawn from the character of the discharge as to the origin of the same. These may be stated as follows:—

If the discharge consist of a curdy-looking fluid, of an acid reaction, and containing in suspension tessellated epithelium *débris* in quantity, it more generally happens that it proceeds from the mucous membrane of the vagina.

If the discharge consist of a soapy-looking matter, or of vitreous lumps of coagulated mucus, or viscid, tenacious mucus, the origin of the same is the cervix uteri. It is only in cases where the cervical glands are in a very active condition, that products of this kind are seen externally in any considerable quantity.

If the discharge be of a creamy character, tolerably profuse, and constant, it probably proceeds from the cervix uteri. It is the secretion of the cervix,

altered and made creamy by the action of the vaginal secretions.

The words "puriform" and "creamy" are here used almost synonymously. The outward physical characters of a "puriform" discharge and of a "purulent" discharge are not very different, and hence the two are frequently confounded. It is most important, however, always theoretically, and whenever possible practically also, that a distinction be drawn between the presence of actual pus and of a fluid which only resembles it. Neglect of this rule has introduced great confusion into the subject.

Between discharges which are essentially mucous in their outward characters, and discharges which are decidedly purulent, we have all gradations; and it not rarely happens that it is difficult to say whether the discharge present would be more properly termed muco-puriform, or actually purulent. Further, it may happen that there is an admixture of the two, there being actual pus discharged from some portion of the generative surface, mixed up with mucous altered secretion. This would render the distinction still more difficult.

It is thus evident that, from the physical characters of the discharge alone, we cannot obtain in all cases positive information as to the precise spot from which it is poured out. Where circumstances render it necessary that more exact information be obtained, an examination is therefore necessary.

Purulent Discharges. There are two important distinctions to be made in reference to this class of discharges. Thus those cases in which the discharge is *continuous* belong to one category; those in which the discharge is *non-continuous*, taking place for a certain time only, and recurring after a shorter or longer interval, belong to another.

a. When the purulent discharge is *continuous*, the origin of the discharge is probably the vaginal mucous membrane, the uterine cervical glands, the surface of a cancerous or other ulcer, or, it may be, suppuration of retained membranes or placenta after abortion, etc. Respecting the participation of the cavity of the uterus itself in cases of profuse purulent "leucorrhœa", opinions are divided. An important class of cases, in which there is continuous discharge, are those in which the purulent discharge is the result of *gonorrhœal* infection. The diagnosis of gonorrhœa from other forms of purulent leucorrhœa will be considered further on.

b. *Non-continuous Variety.* In the other class of cases—those in which there is a purulent discharge only lasting for a time, ceasing, and then recurring—the source of the discharge is either the uterine cavity itself, or an abscess situated near the vagina, and opening into that canal. There is reason to believe that purulent discharge, whether continuous or non-continuous, does more often than has been supposed proceed from the cavity of the body of the uterus; and we occasionally have positive evidence of its origin in this position in cases where, either from contraction of the uterine canal at the junction of the body and cervix (produced by senile atrophy, flexion of the uterus, etc.), an accumulation takes place within the body of the uterus, and in which the symptom we are now considering—occasional and abrupt discharge of purulent fluid from the generative passages—is observed. Sir C. M. Clarke and Dr. Ashwell both allude

to a form of purulent discharge produced, as they describe, by formation and retention of pus in the uterine cavity, the pus so formed escaping from time to time in the manner just described. Dr. Matthews Duncan (*Ed. Med. Journ.*, March 1860) has recently called attention to such an occurrence, more especially in the case of old women who have ceased to menstruate; and the same thing most certainly is observed in women who are still menstruating, as, indeed, Dr. Duncan himself remarks. In a woman who is still menstruating, the symptoms are, dysmenorrhœa, a peculiar feeling of tightness round the loins, sickness or vomiting, etc.; these symptoms finding sudden relief in the discharge of a certain quantity of purulent discharge. If menstruation have ceased, the symptoms slightly vary.

One of the most important causes of this *occasional* purulent discharge is pelvic abscess. The abscess may follow after, or be the result of, parturition; in which case, the other signs present would lead to a suspicion as to the origin of the purulent discharge in question. Another highly interesting class of cases is that in which an abscess, the result of suppuration of the contents of the cyst of a perituterine hæmatocele, discharges its contents into the vagina. In both these classes of cases, however, the discharge appears suddenly; and such cases markedly differ in this respect from ordinary cases of purulent leucorrhœa.

SCIENCE, ANCIENT AND MODERN. Insanity was necessarily regarded as supernatural, until science had shown it to be a disease of the nervous system. The dreadful aspect, the incoherent language and conduct of madmen, seemed only referable to an evil demon having got "possession" of the man; and this belief was of course strengthened by the general tendency of madmen to attribute their actions to some one urging or forcing them. They fancied themselves pursued by fiends, whom they saw in the lurid light of their own distempered imaginations. But before science could have ascertained even the simplest laws of insanity, what an immense accumulation of knowledge on particular points was necessary! Instead of believing that a madman is "possessed," we say he is "diseased;" instead of a demon within him to be exorcised, we say there is a functional disturbance in his nervous system which must be reduced to healthy activity once more. We know as certainly that a disease of this nervous system will produce the phenomena of insanity, as that an inflammation of the mucous membrane will produce a catarrh, or that disease of the lungs will produce consumption. But what vast labours of many generations before it could have been ascertained that the nervous system was specially engaged in all mental phenomena, and that insanity was a disease of this system! It was so much readier an explanation to suppose that a demon had entered the unhappy victim; and this once suggested, it became a question how to best get rid of the demon. Incantation was an easy resort. Among the means of purification many nations seem to have fancied that "fumigation" must hold a high rank, demons decidedly objecting to stinks. To this day the Samoyedes and Ostiaks burn a bit of rein-deer skin under the nose of the maniac. The patient falls into a sort of stupefaction from which he often revives considerably calmed, the action of a narcotic on his nervous system being mistaken for an action of stinks on the olfactories of the demon. The old superstition of hanging odoriferous plants over the door of the house of one "possessed" points to the same belief that odours drive away demons. (*All the Year Round.*)