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ON THE PHYSICAL CAUSES OF SEXUAL DEBILITY IN THE MALE, AS DISTINGUISHED FROM THE PSYCHICAL CAUSES.

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Until within comparatively recent years it was the custom among surgeons, when consulted by patients suffering from sexual debility, to refer the causes entirely to a disturbed condition of the mind, overlooking altogether the possibility that there might be some physical cause to account for the symptoms—symptoms which undoubtedly in many cases are conveyed through the nervous system, but which have not their seat alone in either nervous debility or in nervous depression.

Before calling your attention to the physical causes which I think underlie a large majority if not all cases of sexual debility, I shall ask you first to consider with me the symptoms for which patients consult a surgeon, under such conditions.

There are two points which enter into all the symptoms that I have heard made by patients who suffer from this cause. One is the imperfection of erections—sometimes their entire absence,—and, secondly, the prematureness of the emissions, followed immediately by a subsidence of the erection, supposing this function to have been perfectly normal at the start. Associated with this latter condition there may also be an entire lack of emission, or else, if the emission takes place, the amount ejaculated is very small, and, if examined under the microscope, is oftentimes found devoid or but imperfectly endowed with spermatozoa, constituting the condition of affairs which is known as azoospermism. The former may be considered as the earlier stage which tends towards the development of the second; the first point noticed by the patient being imperfect erection, associated with premature emissions, and followed by an absence of erection. Since the introduction of the endoscope into urethral surgery, it has been possible to examine the urethra to see if there are any pathological conditions in this canal which are either associated with or perhaps have caused this condition of affairs; but even before the introduction of this useful instrument, the older surgeons recognized the fact that these symptoms occur most frequently in patients who have been persistent masturbators, and in these, upon examination with sounds or bougies, a stricture, more or less definite, was found in certain portions of the urethral canal, and some went even beyond this, ascribing a hyperæsthetic condition of the canal as possibly one of the causes, or, at any rate, one of the concomitants of this condition of affairs. This is exemplified by the use which the older surgeons made of the instrument known as Lallemand's "porte-caustique," which they used to cauterize the deeper portion of the urethra. But although the principle was perfectly correct, the application of it was defective, inasmuch as most of the work was done entirely in the dark; portions of the canal were cauterized which were not the seat of the disease, and the instrument being at best a rough and cruel one, oftentimes produced laceration of the mucous membrane with profuse hemorrhage. The danger resulting from its use finally led to its abandonment. But with the endoscope we are now able to see the whole length of the canal and to note those portions of the urethra which are normal and those which are not. Since the days when Desormeaux and Cruse introduced their instrument for the examination of the urethra to the profession,

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the endoscope has been materially modified in so much as its length and its capacity for illumination are concerned. The older instruments were long, and it was impossible to thoroughly illuminate the deeper portion of the urethra with them. The present instrument is short, and by telescoping the anterior and pendulous portion of the penis may be passed as far as the neck of the bladder, and its shortness allows of better and more perfect illumination. This is derived in a three-fold way; by gaslight, kerosene, or the electric lamp, any one of which methods gives a perfect and complete illumination of the canal, and the applications may be made directly to those portions of the urethra which are seen to be the seat of disease.

The causes which I have found playing a most frequent part in this condition of affairs, naming them in the order of their frequency, are:

1. Urethral hyperæsthesia.
2. Prostatic hyperæsthesia.
3. Stricture.
4. Varicocele.
5. Neuralgia of the testis.
6. Tubercular affections of the urethra.
7. Syphilis.
8. Gonorrhœa.

Hyperæsthesia of the urethra and stricture may be included together as one single cause, for in many instances the one is more or less associated with the other; and to this point I shall call your attention more fully further on, when I come to discuss the question of stricture separately. Upon examining patients suffering with this form of disease, I have been frequently impressed with the fact that there were two points in the canal which were most likely to be affected, to wit, one from two and a half to three inches down, the other at five and a half to six, and these two points were nearly always the seat of congestion more or less pronounced, with or without patches of granular material, and when the examination was made with a bulbous bougie, which is the instrument I use at the commencement of the examination, I have always found an obstruction to the passage of the instrument,—an obstruction, however, which nearly always gives way after a few moments' delay. Should the obstruction, however, be obstinate, I then change from the bulbous bougie to the use of the steel sound, of a size which will correspond as nearly as possible to the size of the meatus, and in nearly all these instances I have found that where the bulbous bougie was arrested the sound would go through, showing that there was a spasmodic condition which produces a contraction rather than an organized material blocking up the way. In examining with the endoscope, I have found that this condition was associated with a puffiness of the mucous membrane of the urethra, which would admit the passage of the endoscope, and beyond this puffiness the congested and inflamed portion of the mucous membrane was seated. It is very seldom, indeed, that there is any discharge from the urethra, and, if present, it is nearly always thin, mucous and sticky. The same conditions obtain deeper down in the prostatic portion; the congestion and inflammation are more pronounced there than they are in the portions anterior to this part of the canal; and I have furthermore found that this portion of the canal does not yield to treatment so readily as when the congestion is situated about the peno-scrotal angle or the bulbus urethræ.

Many surgeons consider that urethral stricture is induced by masturbation. If by stricture we understand any and every impediment which occurs to the passage of a sound, then, perhaps, their statement is correct; but if we consider stricture merely as an obstruction in the canal due to an infiltration beneath the mucous membrane, blocking up the lumen of the canal and preventing the passage of sounds, then, I think, some modification must be made of the statement that masturbation produces stricture, and particularly so when we consider for one moment the disproportion that exists between the number of males who at one time or other of their lives have masturbated and the number of strictures which occur, I think we will recognize that it is too sweeping an assertion to make, that the one is caused by the other. If, however, we admit that

there may be spasmodic contractions in the canal induced by some point of irritation in the urethra, then we shall modify this statement by saying that masturbation may produce a hyperæsthetic condition of the canal which leads to temporary and spasmodic contractions, but not to true stricture, and I have in a pretty fairly large experience with these cases come myself to that conclusion, for after the local treatment has been pursued the puffiness and temporary obstruction in the canal disappear, the hyperæsthesia and inflammation subside and the canal returns to a more or less normal condition, and with it the symptoms for which the surgeon was consulted gradually improve and entirely disappear. I have noticed the same condition in men who have indulged to excess in the sexual act, and who had not, so far as I could trust their word, masturbated for many years,—sufficiently long a time to prevent me from considering that the masturbation had anything to do with their sexual debility, and yet in these instances the physical conditions were precisely the same as in those who had masturbated. I have, moreover, been struck with the fact that in those instances where a true stricture was present, as shown by the fibrous and dead white look when seen through the endoscope, that there was very much less sexual disturbance than in those cases where the contraction was due to a puffiness of the mucous membrane. Perhaps those cases where the congestive condition only was present, if left alone, might have degenerated into a true stricture, but I think this is merely a surmise, and I do not know that I have anything to offer as proof one way or another.

Another cause which I think oftentimes operates in these cases of sexual debility is, that in addition to this prostatic irritation, etc., an enlargement of the middle lobe of the prostate occurs, which, by pressure either upon the urethra or upon the vasa deferentia, produces an abnormal excitement upon the slightest occasion, as for example, when sitting upon a hard chair, upon crossing the legs, or upon straining during defecation, all of these acts being followed by an acute burning sensation in the prostatic portion of the urethra, sometimes with the sensation as though an ejaculation was about to occur, and in some few instances really followed by an involuntary seminal emission. In these cases it is, that we find not only premature emissions, but sometimes a total absence of erectile power, so complete, as to make the surgeon believe that the patient is really impotent, were it not for the fact that at intervals the patient will have an erection on waking up, which, however, rapidly subsides as soon as he is awake, and which is seldom followed, at least not for a considerable interval, by any further erection.

Varicocele, I am inclined to believe, is frequently the cause of sexual debility, oftener than is at present believed, and in such cases as I have had under observation, I have noticed that as the varicocele increases, the sexual power seems to have become less and less, until, when the final stage is reached, the testis is atrophied and nothing can be felt in the scrotum but a bunch of veins, the patient is to all intents and purposes impotent, and under these conditions, probably permanently so. I have furthermore noticed in these cases, that where the varicocele is seen sufficiently early to warrant an operation for its relief, it was followed by an improvement in the sexual functions and power.

Neuralgia of the testis is another cause which sometimes plays a part, but only, I think, because of the excessive pain, which is one of the peculiar symptoms of this disease, the pain being so intense as to preclude a thought of anything else, and in that way producing imperfect erections, for in those instances where temporary or permanent relief is afforded, the sexual functions return, and are to all intents and purposes as good as they were before.

Tuberculosis of the genital tract does not produce any sexual disturbance, unless the prostatic portion of the urethra or the testicles are invaded, and in these cases it seems to act less upon the function of erection than it does upon the premature emis-

sion, and subsequently by the lack of emissions. It is in these instances that we often find the condition of azoospermism, and associated with this, under the microscope, bacilli of tuberculosis are not infrequently found; this, however, is not common. Syphilis and gonorrhœa produce disturbance, probably by some organic change occurring in the organs of generation, but in cases of tuberculosis, the disturbance is produced probably by the breaking down of tissue either in the glandular portions of the prostate, or in the body of the testis, producing either a plugging up of the epididymes or of the vasa deferentia, and so preventing the ejaculation of that portion of the spermatic fluid which contains the spermatozoa.

Syphilis in the early stages does not seem to have much influence upon the sexual function, but as the disease progresses and the seminal vesicles and the testicles are attacked with gummous infiltration or gummata appear elsewhere in the uro-genital tract, we then find that the sexual powers become less, and in some rare instances, may be almost entirely in abeyance, returning again, however, in the majority of cases after vigorous antisyphilitic treatment. In these instances not only is sexual debility present, but there is an absence of the spermatozoa in the seminal fluid so that the patient suffers in a two-fold direction, being both impotent and sterile. The same holds true in gonorrhœa, not during its earlier stages, for then the inflammation is such that erections are unpleasantly frequent and associated with great pain, but it is in the later stages and especially after the disease has lasted for some time, inducing stricture, that the sexual functions become affected, and if a gonorrhœal epididymitis has ensued which must, however, be double, then azoospermism is the result, and of all the varieties of azoospermism, this is the one which promises the least results from any method of cure, and the longer the blocking up of the epididymes has occurred the less the chances of fruitful semen. In these cases, apart from the irritation produced by the stricture, there is no debility; the patients are often as vigorous as ever. They have what seems to be a normal ejaculation, save and except that the semen is devoid of its fructifying principle: in other words, these patients become sterile, but are not impotent.

One other cause may sometimes induce sexual debility, and that is any affection of the rectum, whether it be hemorrhoids, which is not an uncommon cause of temporary debility, or long and deep fissures of the anus, which by irritation will produce reflex irritation of the urethra, and so result in premature emissions, and in some rare cases, will induce a weakening and lessening of the powers of erection.

In enumerating these purely physical causes which I believe to be most frequent as pathological factors in this disease, I do not by any means intend to decry the mental or nervous effect which is produced upon patients. It is often most pronounced, and in many instances seems to be the most prominent feature in the disease, but I believe that the error which has been made by surgeons in laying too much stress on the nervous part and too little on the physical, has worked to the detriment of both patient and surgeon and has driven the former into the hands of the charlatan when the surgeon could have given better and more permanent relief. I have, therefore, trespassed on the time of the Society in order to call attention to the physical causes which I have found in cases that I have had the opportunity of examining and treating for sexual debility, the majority of which I believe to be perfectly curable at the hands of the surgeon. The short time at my disposal has not allowed me to make more than a hurried sketch, calling your attention to the salient points in as few words as possible, and now a word in regard to treatment.

For the first three, to wit: hyperæsthesia, stricture and varicocele, the treatment must depend largely upon local methods and not upon internal medication. Applications made through the endoscope, I believe, are far the best and those applications range from nitrate of silver down through the various astringents to those which are

purely sedative, such as cocoaine and the like. I believe that the most serviceable treatment in the majority of instances is by the solution of nitrate of silver, from ten to thirty grains to the ounce, and even stronger. Sometimes I have used fifty grains to the ounce. The pain, when this application is made to the deeper part of the canal, provided the solution is not allowed to run out toward the meatus, is very slight indeed, sometimes none at all, and I believe that the local application through the endoscope is preferable either to the method of applying nitrate of silver by the porte-caustique or the syringes of Ultzman, Keyes, and others, because the application can be made directly to the part, the superfluous moisture can be soaked up by the cotton tampons at the end of the applicator, and no obstruction occurs. I do not believe, from my experience, that solutions of nitrate of silver, even when strong, produce stricture, certainly not when made through the endoscope. Nitrate of silver has received a bad name, and I think in some instances undeservedly, for when properly used I am satisfied that it is a very valuable adjunct in the treatment of uro-genital diseases. In addition to this the various solutions of zinc, the permanganate among others, tannin, either as an aqueous solution, or better with glycerine, are frequently valuable adjuncts and should be resorted to as occasion requires.

In cases where stricture or a spasmodic contraction is present, the question comes up with regard to operation or the use of sounds, and in these instances where the stricture or rather the contraction is of the congestive and purely irritable type, I much prefer the use of sounds of the fullest size that the canal will admit, passed at intervals of from three to ten days, and I believe not only does it have the effect of dilating the canal, but it has a sedative action upon a nervous and irritable urethra. I should not be inclined in these cases to pass the instrument cold; on the contrary, I am in the habit of using it as hot as the patient can conveniently endure. They can be passed either alternately or within a few days after the local applications are made, but that will vary, of course, with the individual features of each case, and with the surgeon's belief of what is required.

Should varicocele be the cause operative procedure is the only method that offers any chance of success, and in these instances, I much prefer the operation by ablation of a portion of the scrotum rather than any attempt to tie the varicose veins. In those cases where tuberculosis, syphilis, and gonorrhœa play a part, of course the internal treatment appropriate to these varieties of diseases, is the only method that can be pursued, and in these instances the local treatment can be of little service.

The internal treatment, I think, plays a purely secondary part, and in instances where there seems to be a debilitated condition of the patient, a tonic may be, and undoubtedly is, often of service. As regards the so-called aphrodisiacs, I frankly confess I am somewhat skeptical of their value, and yet I have seen cases where I had reason to believe that good results followed, especially from the use of carefully prepared preparations of cocoa (erythroxylon cocoa), and occasionally damiana. In all instances, when prescribing these preparations, it is well to have them made up by some responsible house, as so many worthless preparations of both cocoa and damiana have been put on the market, that unless the surgeon exercises some care in the selection of his drug, he is apt to be disappointed. I have for the past year tried fluid extract of sabal serrulata (the saw palmetto), and without committing myself to a positive opinion upon the subject, I have thought some patients were benefitted by its use; but whatever the method of treatment be, it must be remembered that these people are a class who will try the patience and good temper of the surgeon almost more than any other. I do not except cases of chronic urethritis. They are patients who should really be commiserated with, should be treated with the utmost kindness, and be encouraged in every possible way that the surgeon can honestly and legitimately do so.

To make a brief summary as a termination of this paper, let me state :

I. That the cases of sexual debility which are marked by imperfect erections and by premature emissions are usually, if not always, due to hyperæstheria of some portion of the urethra.

II. That masturbation has very little, if anything, to do with it beyond the fact that if indulged in to excess, it may induce a tendency towards this hyperæsthetic condition, but this is no more marked in masturbators than it is in those who indulge to excess in the veneral act.

III. That organic stricture has little, if anything, to do with it, but that associated with the hyperæsthetic condition, there is an irritable condition of the canal which produces spasmodic contractions of the urethra upon attempts to pass instruments, oftentimes during the first act of micturition, and at the time of connection.

IV. That varicocele plays no unimportant part in these cases.

V. That neuralgia of the testis, if a cause of this disease, induces it merely as a secondary consequence to the pain which is one of the distinguishing features of this disease.

VI. That tuberculosis, syphilis and gonorrhœa may also play their part, and should all be reckoned with in summing up the causes which may induce this peculiar and depressing condition of affairs.

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