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CLINICS.

Clinical Lectures.

ON SEXUAL DEBILITY, SEXUAL EXHAUSTION, AND IMPOTENCE.

A CLINICAL LECTURE DELIVERED AT THE JEFFERSON MEDICAL COLLEGE HOSPITAL.

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GENTLEMEN: At my last two clinics I introduced patients with certain general and local motor, sensory, and secretory neuroses dependent upon lesions of the urino-genital apparatus. Of the nervous disorders relating to muscular movements remote from the genital organs, you will remember a lad, eight years of age, with paralytic talipes equinus, and a child of four years who was suffering from impairment of the power to coördinate the voluntary movements of the lower extremities. In both of these cases the trouble arose from an elongated, contracted, and adherent prepuce. You also had under observation a man, twenty-three years of age, who was greatly annoyed by vertigo and twitching of the muscles of the legs, which were traced to excessive sensibility and stricture of the urethra. Of the sensory neuroses you have seen examples of morbid states of the urethra giving rise to pain in the back, shoulders, nucha, head, and in one case at the outer side of the tendines Achillis; and I had before you a man in whom numbness of the thighs was a prominent symptom.

In addition to these reflex nervous disorders of the system at large, you will recall the cases of neuroses of the urino-genital organs themselves arising from various affections of those systems. Among the local neuropathies you have witnessed instances of spasm of the urethral muscles, and of spasm and paralysis of the sphincter and detrusor muscles of the bladder. Of the sensory troubles, cases of hyperæsthesia of the urethra, testes, and spermatic cord were quite common; while of the secretory neuroses, which were also combined with motor and sensory phenomena, I have introduced examples of prostatorrhœa, nocturnal pollutions, and true spermatorrhœa. In the majority of these cases we found other symp-

toms, such as impairment of memory, troubled and unrefreshing sleep, a feeling of heaviness on rising, coldness of the hands and feet, poor appetite, constipation, coated tongue, palpitation of the heart, and additional signs of dyspepsia. Prominent among the subjective symptoms were dorsal pain, which was increased by exercise and exposure; muscular weakness of the limbs, so that the patients were exhausted by comparatively slight exercise and exertion; and a feeling of fatigue on getting out of bed. These phenomena, I told you, indicated neurasthenia, nervous exhaustion, or the depressed form of spinal irritation, which, in the absence of post-mortem evidence, is supposed to be due to anæmia of the lumbar division of the cord.

In endeavouring to account for these symptoms I impressed upon you the necessity of exploring carefully the male organs of generation when examination of the cerebro-spinal axis failed to throw light upon them. While phimosis, acquired or congenital contraction of the urinary meatus, balanitis and stricture of the urethra frequently give rise to reflex neuroses, I have found that they are usually traceable to inflammatory disorders of the prostate, which bear the same relation to nervous affections in the male that lesions of the uterus do to allied disorders in the opposite sex. The prostate, with its intercallated acinous glands, and the structures that are contained within or traverse it, as the urethra, the veru montanum, the sinus pocularis, or prostatic vesicle, or utriculus, which is the homologue of the uterus, and the ejaculatory ducts, are supplied by large nerves derived from the hypogastric plexus of the sympathetic, the sacral plexus of the spinal nerves, and, through the lumbo-sacral trunk, from the lumbar plexus. In consequence of the free interchange of fibres between the sympathetic and the cerebro-spinal systems of nerves, it is obvious that the component parts of the genitalia are not only in intimate connection with one another, but also, through the agency of the cord, with remote parts. Hence it is that prolonged hyperæmia or inflammation of the prostate and its included structures gives rise not only to essential symptoms, but occasions various signs in other organs and tissues which are of a reflex or functional nature. If the inflammation becomes chronic, and if the causes that produce it, of which the most common is undue excitement of the sexual function from masturbation, excessive venery, and unsatisfied and prolonged desire, be kept up, exaggerated irritability of the medullary and vaso-motor centres will set in and soon be followed by exhaustion or anæmia of the lumbar spinal cord, and the condition known as neurasthenia.

I shall ask your attention this morning to sexual exhaustion, which is another common and distressing reflex neurosis connected with the male genital function, although impotence, or inability to perform coitus properly, may result from vices in the conformation of the genital organs, or be merely symptomatic of central lesions of the nervous system. Of this condition arising from inflammatory affections of the reproductive apparatus, to which alone I shall refer, there are several grades which I will illustrate by typical cases, derived mainly from the out-patients' department.

Case I.—A teacher, 24 years of age, tells me that he acquired the habit of masturbation when he was fifteen or sixteen years old, and that he kept it up for about three years. During the ensuing two or three years he had occasional sexual intercourse, but, to use his own language, "for the past twenty-four months I was unable to perform the act, owing

to an insufficient erection and a premature discharge. My greatest trouble for five years has been voluptuous dreams; and the nocturnal emissions would sometimes occur for five consecutive nights, causing great mental and physical depression. I find that in toying with or fondling women a discharge oozes from my urethra in quantities sufficient to stain my linen. My memory is impaired; I have lost some flesh; and I am easily fatigued."

You will observe that the external genitalia are normal. On inserting a No. 22 French exploratory bougie, I discover a stricture one-eighth of an inch behind the meatus, and I find that its further passage is attended with great pain, which becomes excessive in the prostatic portion of the urethra. On withdrawing the instrument I find that its shoulder is arrested by another coarctation at five inches and three-quarters, and that it brings away some prostatic discharge.

CASE II.—A mechanic, 26 years of age, states that for the past eighteen months he has had intercourse with one woman three or four times every night, and that he occasionally fulfilled engagements of a similar nature with other females. Latterly he has observed that his powers were growing feeble, and at present his erections are flabby and his ejaculations precipitate. He looks pale; is easily fatigued; and suffers from pain in the back and from frequent and painful micturition.

As in the preceding case, the penis and testes are perfect; but a No. 25 explorer detects a very sensitive urethra and a stricture seated at six inches from the meatus. The neck of the bladder is also extremely irritable.

CASE III.—A weaver, 37 years of age, has been under treatment in the out-patients' department for the past month for hyperæsthesia of the urethra complicated by two strictures, one of which is located at three inches and a half and the other at six inches from the meatus, the latter being narrow and tortuous and only permeable by soft instruments. He has had gonorrhœa three times, the last attack having occurred fourteen years ago; and for the past three years the erections have been growing more and more feeble, until they frequently passed off before intromission, and coitus was always attended by precipitate ejaculation. In addition to his sexual troubles, he complains of numbness along the outer side of the left thigh, almost constant dorsal pain, and a dull, heavy pain in the back of the head, the left side of the neck, and the left shoulder, all of which localities now and then suddenly and temporarily become red and hot. The suffering is aggravated by exercise and continuous work; his sleep is unrefreshing; and he has dyspeptic symptoms.

These three cases represent the most common form of sexual debility, the prominent signs being imperfect or feeble erection and premature ejaculation. Desire, however, is unimpaired, and intercourse is possible, although it is unsatisfactory. In all the exciting cause was chronic hyperæsthesia and inflammation of the prostatic urethra which was produced, respectively, by masturbation, excessive coitus, and gonorrhœa, and was kept up by one or more strictures. One case was complicated by nocturnal emissions, and another by inflammation of the neck of the bladder. In all there were symptoms of neurasthenia and anæmia of the lumbar division of the spinal cord; and as Goltz has shown that this portion of the cord is the centre for the erigent and ejaculatory nerves, we can readily account for impairment of the virile power when its healthy action is depressed or its energy is diminished.

The next patient whom I shall introduce illustrates the second grade or form of sexual exhaustion, which is characterized by entire loss of the power of erection, without, however, abolition of desire. Hence persons affected in this way are not only impotent, but from their inability to practise coitus, they are also sterile.

CASE IV.—This man is a mechanic, aged 23 years. At about his sixteenth year, after having been in the habit of masturbating freely for six or seven years, he observed a urethral discharge. He never had sexual intercourse until he was twenty-one; and, after a few months of moderate indulgence, the discharge increased, and the erections became more and more weak until he was finally unable to consummate the act, although the desire remained. He is pale; suffers much from pain in the back, the shoulders and anus, and the left temporo-maxillary articulation; and is easily fatigued.

When he presented himself two weeks ago, examination with a No. 25 explorer, which was attended with great nervous agitation, disclosed intense hyperæsthesia of the entire urethra, and particularly of its prostatic portion, but there was no indication of a stricture. He afterwards rode to his house in the street cars, and about two hours later, after urinating, he was seized with a curious crawling sensation in his arms and legs, lost consciousness, and, when found by his friends, was lying on the floor, and his face was livid. On his next visit, three days subsequently, he was placed upon thirty grains of bromide of potassium with five drops each of juice of belladonna and tincture of gelsemium every eight hours, and directed to take ten grains of quinia one hour before his next visit, which occurred one week ago. At that time a conical steel bougie was passed, and one-third of a grain of morphia thrown under his skin.

To-day he reports that the passage of the instrument brought on a slight epileptoid paroxysm, as indicated by clonic spasms of the muscles of the arms and eyelids, and a feeling as if he would become unconscious; and these symptoms were followed by prostration and numbness of both hands. With the view of preventing or mitigating a similar seizure he has taken ten grains of quinia, and he will have a third of a grain of morphia administered hypodermically before he leaves the amphitheatre. You will observe, as soon as the exploratory bougie enters the canal, the tremor and retraction of the testes, and as the bulb reaches the prostatic urethra you see that he shrinks from the excessive pain which it awakens, and that the muscles of the lids, nose, and mouth twitch convulsively. On withdrawing the instrument it is found to be covered with prostatic secretion.

As in the previous cases, the sexual difficulty in this man arises from inflammation and morbid sensibility of the urethra, and more particularly of its prostatic portion. It is moreover interesting from the fact that instrumental contact provokes epileptoid attacks, a complication which is by no means commonly witnessed.

In the third phase of the affection, not only is there complete loss of erectile power, but sexual desire is likewise abolished. Fortunately I have no illustration of this condition. I say fortunately, because the subjects are extremely liable to melancholy and hypochondrism; and although the lesions upon which their impotence depends may be removed, their mind is so seriously affected that a final recovery is almost hopeless.

Finally, there is a fourth class of cases, in which there is desire and complete power over erection and coitus, but the patient is unable to have a seminal discharge, although he may have voluptuous sensations.

This peculiar state, which is known as aspermatism, I include among the reflex neuroses from inflammation and hyperæsthesia of the prostatic portion of the urethra, because I discovered those lesions in the four instances that have come under my observation. Aspermatism may be due to a tight stricture, to absence, obstruction, or deviation of the ejaculatory ducts, either as the result of disease, injury, or a congenital vice, to obliteration of the prostatic vesicle, and to various morbid conditions of the prostate and testis. Of these lesions, however, I have nothing to say, as I distinctly stated at the beginning of this lecture that I would only consider impotence as a temporary neurosis arising from inflammation and undue sensibility of the prostatic urethra.

In the majority of cases, although there is absence of ejaculation on coitus, the patient has nocturnal emissions; but when he is awake neither the venereal act nor masturbation can provoke a seminal discharge. Just exactly what the trouble is, is a mere hypothesis; but I fancy that there is a want of excitability of the reflex ejaculatory centre, or that there is reflex atony of the muscular structure of the seminal passages. However this may be, the next patient affords an admirable illustration of this curious condition complicated by prostatorrhœa.

Case V.—A teacher, 22 years of age, had gonorrhœa five years ago, which degenerated into a gleet. For the past three years he has had a more or less colourless discharge, particularly after erections and straining at stool. During the past eighteen months he has been unable to have an ejaculation during coitus, although he prolongs the act until fatigue requires him to cease. Now and then he has a nocturnal emission, attended with diminished sensation, under the influence of a voluptuous dream; and erections are provoked by slight causes. He is continually morbid about his condition, so that he can scarcely attend to his daily duties, being unable to fix his thoughts for any length of time upon any subject except his sexual trouble. He has pain in his back, loss of appetite, and palpitation of the heart.

Exploration with a No. 25 bulbous explorer discovers a very sensitive prostatic urethra, a linear stricture at six inches from the meatus, and a considerable prostatic discharge.

In all of the cases that I have introduced, hyperæsthesia, particularly of the prostatic urethra, which was maintained in four out of the five by one or more strictures, and induced by masturbation, sexual excesses, and gonorrhœa, was the prominent symptom. Hence, I feel warranted in stating that undue sensibility and excitement of the prostatic portion of the canal and of the ducts which open into it, are the most common and important causes of the spinal reflexes which make themselves known by the various grades of sexual exhaustion or impotence, and other signs of the depressed form of spinal irritation.

Of the relative frequency of the four varieties of sexual troubles of which I have spoken, an examination of 97 cases that have come under my personal observation discloses that 87 were examples of feeble erection and premature ejaculation; 4 were instances of loss of power of erection, with retention of desire; 2 were examples of loss of both power and desire, and both were hypochondriacs; while 4 came under the class of aspermatism.

The etiological factors were, gonorrhœa in 30, masturbation in 66, and excessive coitus in 1. Just how far prolonged and unsatisfied passion, produced by toying with females, is to be considered an exciting cause of

the affection I am unable to say, since I find that young men addicted to this habit are very liable to relieve themselves by onanism.

With regard to masturbators I have made some notes that are interesting and practically useful. Thus I find that one in every three has an elongated prepuce; one in every five has an inflamed meatus; one in every two and a half has a very sensitive urethra; that the same proportion suffers from a gleety discharge; and that one in ten has a small penis. As I have pointed out in a paper read before the Philadelphia County Medical Society, and published in the *Medical and Surgical Reporter* for May 8, 1877, and in a paper which appeared in the *Transactions of the American Medical Association* for 1877, protracted masturbation is just as sure to result in urethritis and the formation of stricture as is a chronic clap. Of the 66 masturbations only 3, and one forms the subject of Case IV., were free from stricture, so that that lesion should always be looked for in this class of patients. In about five-sixths of the cases there is only one coarctation, while in the remainder two or more strictures will be found. In one-sixth of the entire number the contraction is seated within the first inch of the urethra.

In the treatment of disorders of the genital function arising from preternatural sensibility of the prostatic urethra your first care should be to make a thorough examination of the generative and associated organs with the view of getting rid of the causes which produce and maintain them. If the patient has a redundant prepuce, it should be removed; if the meatus be contracted, it should be enlarged; while herpes of the prepuce and glans, or balanitis should be treated in the usual way. All of these lesions are capable of setting up hyperæsthesia of the prostatic portion of the urethra, or even of exciting reflex impotence without the intervention of prostatic trouble, and their relief is quite sufficient in mild cases to restore virility. The same statement is true of certain diseases of the rectum, so that the lower bowel should receive due attention.

In the great majority of cases you will find, as you have learned from the patients that have been brought before you, that the treatment is to be directed to overcoming the hyperæsthetic prostatic urethra, which is usually complicated by stricture of the spongy portion of the canal. Hence your remedies, whether these be local or general, must be of a sedative nature; and your patient at the outset should be impressed with the importance of avoiding all sources of sexual excitement, such as coitus, masturbation, dalliance with women, and lascivious thoughts and literature. Of general remedies, the aphrodisiacs, as cantharides, phosphorus, and damiana, are harmful; while anaphrodisiacs are always indicated. Of the latter, an extended experience has convinced me that bromide of potassium is by far the best, as it not only blunts the venereal appetite, but also corrects the acidity of the urine, and exerts an anæsthetic influence on the urethral mucous membrane. I am in the habit of administering thirty grains every eight hours, unless I find it makes the patient too drowsy during the day, when I order a drachm to be taken at bedtime. If signs of bromism appear, I reduce the dose; or if the remedy is badly borne I usually substitute ten drops of tincture of belladonna, and five drops each of tincture of gelsemium and Fowler's solution, three times a day, which is an admirable combination. The preparations of belladonna are particularly appropriate when the case is complicated by nocturnal emissions, and may be given in the form of the fluid extract, tincture, or juice, or of atropia

administered hypodermically or by the mouth. When the patient is anæmic, he should also take tonics, of which a combination of quinia, tincture of the chloride of iron, and tincture of nux vomica is one of the most suitable.

In addition to sedatives and tonics the bowels should be kept in a soluble condition, particular attention being paid to the rectum. For this purpose, ordinary hydrant water may be thrown into the lower bowel every morning, as it has the additional advantage of soothing the irritated prostatic urethra. If cool water enemata do not answer the purpose, and there is atony of the muscular coat of the intestines, a pill composed of two grains of the compound extract of colocynth, half a grain of the extract of nux vomica, and the tenth of a grain of extract of belladonna may be administered on going to bed; or, if it be deemed desirable to act on the liver, a wineglassful of Hunyadi water, or two or three drachms of equal parts of Epsom and Rochelle salt, may be ordered every morning. Any especial dyspeptic symptoms are to be met by appropriate remedies.

The diet should be nutritious and digestible, but unstimulating. The patient must eschew coffee, malt and alcoholic liquors; and his supper should be light. He should sleep on a hard mattress, use only the lightest coverings, and empty his bladder thoroughly on retiring, and early in the morning, if an erection indicates fulness of that viscus. He is to be warned against horseback exercise and driving over rough streets and roads, and all other forms of amusement which tend to produce hyperæmia of the genitalia, as well as against mental and bodily fatigue if the signs of neurasthenia be marked. Benefit will accrue from moderately cool lotions to the dorso-lumbar region, in the form of irrigation, the douche, or the wet sponge; and syringing cool water against the perineum will be found to be of great service when prostatic discharges or pain on exercise indicate that that organ and its included urethra are too excitable.

Of the local measures to overcome chronic congestion, inflammation, and hyperæsthesia of the veru montanum, the prostatic urethra, the ejaculatory and prostatic ducts, not one is so universally applicable as the passage of the conical steel bougie. The size of the instrument is to be gauged by that of the meatus if it be normal, or by that of the stricture if one be present, and its circumference should be gradually increased up to the full capacity of the urethra, as indicated by the urethrometer. To effect this, however, the meatus will have to be enlarged as a preliminary measure, or you may use my urethral dilator which dispenses with that operation. At first the bougie should be at once withdrawn, and the intervals between the insertion should be forty-eight hours. With the decrease of the sensibility it should be retained longer, and the intervals of introduction be shortened. If the stricture be irritable or resilient it should be subjected to internal urethrotomy, as no progress can be made unless the contraction be a simple one.

As an illustration of the readiness with which cases of sexual debility improve under simple and properly directed measures, I show you a patient who was before you just four weeks ago.

CASE VI.—On the 8th of April, a mechanic, aged 23 years, gave us the following history. He complained of a gleety discharge, which kept the lips of the meatus glued together, and had existed for two years and a half; of a discharge of prostatic fluid at stool; and of nocturnal seminal emissions, which were often as frequent as every night during a single week, and now and then occurred to the number of three in a night. The

erections were feeble, and ejaculation was premature. The bowels were costive, but he had no signs of spinal exhaustion. Examination with a No. 17 explorer disclosed a stricture one-eighth of an inch behind a contracted meatus, and a highly sensitive urethra, especially in its membranous and prostatic divisions. On withdrawing the instrument a few drops of prostatic fluid came away. I laid open the meatus along with the stricture, and directed the pill of colocynth, nux vomica, and belladonna at bedtime, and thirty grains of bromide of potassium every eight hours. The incision was prevented from closing by the passage of a No. 30 conical steel bougie, which was passed through the entire urethra every other day for three weeks, and daily for the past week. To-day, May 6th, the hyperæsthesia has almost entirely disappeared; the gleet has ceased; there is merely a slight prostatic discharge if the bowels are allowed to become constipated, but he has not noticed it for several days; there were nocturnal emissions on the nights of April 17 and 18, and the erections are improving in vigor. The treatment will be continued, and a cure may be looked for in another month.

All cases do not respond so quickly to treatment as this one. Should the tenderness of the urethra prove refractory, you may resort to compression combined with the local application of cold with the cooling sound, or psychrophor of Winternitz, which is nothing more than a double current catheter closed at its beak. By means of these tubes a stream of water of a temperature of about 59° should be passed through the instrument for ten minutes. In many instances you will find that the inflammation and morbid sensibility are finally reduced to a small, and probably granular, patch, which will demand astringent applications. Of these I prefer a twenty-grain solution of nitrate of silver, carried to the tender spot in the way you have so often seen me do, and which I told you I learned from M. Felix Guyon, the successor of Civiale at the Hôpital Necker, of Paris. I charge the small syringe with the solution, attach to its nozzle a hollow bulbous bougie or explorer, and press upon the piston until a drop of the fluid appears at the hole in the apex of the bulb. Wiping this off, I oil the bougie, carry it down until the bulb defines the inflamed patch, withdraw it slightly, when, with my finger on the piston, I deposit a few drops of the liquid in the urethra. The bladder should be emptied before making the application, and the patient should be kept in bed for some hours subsequently, and use demulcent drinks. With these precautions the only inconvenience to which he will be subjected will be some scalding during the next act of micturition. The application need not be made oftener than once a week. In the absence of this contrivance, you may employ the catheter-syringe, the instrument provided with a concealed sponge, or the porte-caustique of Professor Gross, the cup of which is charged with the nitrate rubbed up with stramonium ointment. When the affection proves more obstinate, as it is liable to do when it is chronic, and complicated by prostatorrhœa in mature subjects, flying blisters, made by pencilling cantharidal collodion on each side of the perineal raphé, are of the utmost service.

Up to this point you will observe that the treatment, both general and local, has been addressed to relieving the inflammation and hyperæsthesia of the deep urethra. When this has been accomplished, nothing more, as a rule, is required; but cases occur in which after the local lesions have been cured, the erections are still not sufficiently vigorous and the ejaculations are premature Our object now is to restore the sexual powers

by the internal exhibition of iron, quinia, strychnia, phosphorus, ergot, and tincture of cantharides, alone or variously combined; by cool hip-baths and cool applications to the dorso-lumbar region; and by electricity. The anode of a battery is placed over the lumbar spine, and the cathode carried over the spermatic cord, the testes, perineum, and back of the penis. The sittings at first should not exceed five minutes, or be repeated oftener than every forty-eight hours. The current, moreover, should be feeble, and not excite pain even when its strength is increased. When there is atony and relaxation of the ducts, as shown by prostatic and seminal discharges after the hyperæsthesia has disappeared, a negative urethral electrode may be passed down to the prostatic urethra, or one may lie in that locality while the other is inserted into the rectum. I must caution you, however, to be careful in the use of the urethral rheophore, as I saw not long ago in consultation with my friend, Dr. Asch, of New York, a gentleman who had lost his right testicle from suppuration through its employment while the urethra was still irritable. In addition to these measures a change of air, travel, exercise, amusement, and sea-bathing will do much to tone up the system.

The end having been accomplished, it remains to put your patient on his guard against sexual excesses. Unless he practises moderation, he is liable to a relapse; and if he is single you should advise him to marry. When sexual exhaustion arises from central nervous lesions, he should remain single; but when it is due to prostatic trouble, and there is no hypochondrism, you are perfectly safe and right in recommending matrimony.

In the management of these disorders, I have not had aspermatism in view. Although I have seen four cases, I have not been able to conduct the treatment in a single one; but as I fancy that this condition, when it is combined with inflammation and morbid sensibility of the deep urethra, depends upon atony of the seminal vesicles, I have no reason to doubt that the course which I have outlined will prove effective.