

In young children, (it is to be borne in mind), the cotyloid ligament is not as strong or as developed as in adults, and the acetabulum is much smaller, the bony rim of adults being cartilaginous in children. It is also true that in tuberculous osteitis in the hip, as in other joints, the cartilages and ligaments at an early stage become softened and incapable of resisting a distracting force. Where the head of the femur has been absorbed and no anchylosis takes place, distraction occurs from a slight force. The direction of force in which distraction encounters the least resistance in a normal limb is with the limb slightly flexed and adducted.

FIVE CASES OF PERINEAL SECTION WITH EXCEPTIONAL COMPLICATIONS.¹

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REPORTED BY DR. A. K. STONE.

CASE I. — CURETTING THE BLADDER FOR CHRONIC CYSTITIS.

J. A. W., aged forty-seven.

November 5, 1887. For the past seven months the patient has been extremely troubled with frequency of micturition. During the day he passed urine every fifteen to twenty minutes, and at night the intervals were never longer than one hour. At times he has severe vesical tenesmus, when he is obliged to keep his penis in a urinal for hours at a time, on account of the constant drizzle of urine. Before micturition there is pain, referred to the end of the penis. At times this pain runs backwards along the course of the entire urethra. Blood-clots have been frequently passed, and the urine contains abundant sediment, with shreds of so-called mucus.

Urine is pale; slightly alkaline; specific gravity, 1013; albumen, trace; sediment considerable; normal blood; little pus; numerous small round cells; crystals of ammoniac urate.

Examination by Dr. Porter under ether. No stricture; no enlargement of the prostate; no stone in the bladder.

For the next three weeks the patient's bladder was washed out from time to time with boracic acid solution, 1 to 150. The bladder was extremely intolerant, and the introduction of the catheter always set up violent tenesmus and caused great pain. Only about one ounce of the solution could be injected before still more severe contractions would be excited, and the wash fluid expelled with violence. The tenesmus would continue several hours after the catheter had been withdrawn. Urine still contains pus and mucus and a trace of albumen.

As the patient had made no perceptible gain during his three weeks' stay in the Hospital, Dr. Porter decided to drain the bladder, and for this purpose, on the 26th of November, performed perineal section in the usual manner. After the bladder had been opened, the surgeon's finger was introduced into the bladder, which was found to be firmly contracted, even under ether. The walls were velvety, as if covered with exuberant granulations. The entire surface of the bladder was then thoroughly curetted and washed out, first, with corrosive sublimate (1-5000), then with hot

phenyl (sulpho-naphthol). A chemise canula was tied in. In the afternoon the patient had intense pain, which was relieved by washing out the bladder and removing a number of blood-clots. A rubber tube was substituted for the canula.

Five days later, the record says that the patient has been very comfortable and has slept well. His urine contains no blood. The drainage-tube was removed from the bladder twenty-five days after the operation. The urine came about equally by the penis and through the perineal wound. The patient at once regained control of the sphincters of the bladder, and, instead, passing urine every fifteen or twenty minutes, as he did before the operation, the intervals were about one hour's duration. Three days after the tube had been withdrawn, there came an increase in frequency of micturition, accompanied by pain and tenesmus in the rectum, which was not relieved by free catharsis. Examination of the rectum showed an abscess of the prostate, which was opened and drained into the rectum. The rectum was packed with iodoform gauze, which was removed two days later. The rectum was then washed with hot phenyl twice a day.

From that time on the patient steadily gained in flesh and strength. For a few weeks the bladder was washed out every day, but now with very little pain or discomfort. Almost all the urine is passed by the penis. For a day or two all will be passed by the penis: then, for a few days, a little will come by the perineum. The urine is clear and contains no pus. The intervals between micturition are now two hours to two and one-half hours during the day; while the patient sleeps nearly all night, passing his urine but once or twice. There is a slight stinging sensation after each micturition. On the 6th of February, fourteen weeks after entrance, no urine having come by the perineum for six days, he was discharged.

Remarks. This case shows how tolerant the bladder may be of even severe operative interference. The idea of curetting the walls of the bladder was forced upon the surgeon by the nature of the case. It was an emergency of the operation, and had to be met and settled at once; and the wisdom of the decision is clearly shown by the after-history. I have been able to find no similar case recorded in the "Index Medicus."

NOTE.—Patient reported July 3, 1888. Has gained twenty pounds in weight. Is able to do a full day's work without any discomfort from frequency of micturition. Never has to get up more than once during the night to pass urine and usually holds it all night long. No perineal fistula.

CASE II. TUBERCULOSIS OF THE MEMBRANOUS PORTION OF THE URETHRA, RESULTING IN STRICTURE AND URINARY INFILTRATION.

O. C., aged thirty-two, box-maker, New Hampshire.

Patient has a good family history, and his previous history, up to six or seven years ago, has been good. He denies ever having a gonorrhœa or other venereal disease, and he never received any blow or injury in the perineum. Six years ago he began to have pain, starting in the small of the back and passing downwards and forwards towards the bladder. This pain was described as being like a pleuritic pain. The pain finally settled in the bladder and was very severe, and increased by any sudden movement or jar. Four years ago he had a swelled testis, and about the same time he began to be troubled with difficulty of micturition. The urine contained blood and considerable

¹ Read at the meeting of the Surgical Section of the Suffolk District Medical Society, May 8, 1888.

sediment. At times he has passed small particles, possibly of phosphatic nature. None, however, have been passed lately.

Such has been the condition up to four months ago, when he was taken one night with partial retention, being able to pass urine only in drops. Later, there was complete retention, and the urine had to be withdrawn with a small silk catheter, which he was taught to pass himself. Passage of this instrument caused considerable irritation to the urethra, so that for days he could pass his urine only in drops.

About eight or nine days ago a swelling appeared in the perineum. This tumor was finally opened by his physician and pus evacuated, and soon after urine began to escape by this opening. Since that time urine has come both by penis and perineum.

Patient is pale, emaciated, and very weak. Heart and lungs negative. Micturition about every hour. Urine of normal color; specific gravity, 1010; albumen, $\frac{1}{4}\%$; much sediment; much mucus and pus; bladder-cells in excess.

January 9th. Operation by Dr. Porter, under ether. Strictures, one three inches from the meatus, and one in the deep urethra, divulsed. A grooved staff was then passed, and the urethra opened through the perineum. The old fistulous tract was curetted. Deep down in the perineum a large amount of cheesy material was found; also a tract running off towards the left buttock, which discharged a thin, watery pus. The entire fistulous tract was laid open and thoroughly curetted. A catheter was tied in, and the wounds packed with iodoform gauze. The cheesy material was examined by Dr. W. W. Gannett, and the giant cells of tuberculosis found.

Eighteen days after the operation the catheter was permanently removed. It had worked perfectly during this time, and given the patient very little inconvenience. Urine then came entirely by the perineal wound. The patient has suffered but little pain, but is weak and miserable, and has a very poor appetite. He was given cod-liver oil and iron.

Ten days later the patient sat up for a short time in a wheel-chair. General condition is about the same. The urine is all passed by the perineal wound.

Two weeks later the patient was discharged at his own request. The patient has been up each day in a wheel-chair, and has grown decidedly stronger; eats and sleeps much better. The wound is still indolent, and shows little inclination to close. Sounds have been passed from time to time, but the urine is still passed by the perineum.

Remarks. The only gain for this patient was ability to evacuate his bladder without pain. It is of interest on account of the non-venereal history and the discovery of the giant cells of tuberculosis which in all probability were the source of all the trouble.

CASE III. EXTRAVASATION FROM STRICTURE AT THE MEATUS.

January 5, 1888. J. C. S., machinist, aged sixty-two.

The patient has had a stricture for twenty years. Several times in the last few years he has had retention, which would last for several hours. At the end of this time a plug of mucus would be passed, and the urine would then flow freely. No instruments have ever been passed. For the past few months the size of the stream has been gradually growing smaller and

smaller. There has been some cystitis. The meatus has been very small, and at times has had to be probed with a needle to enable the patient to start his urine.

Last night the patient found himself unable to pass any urine. However, he suffered no special discomfort, passed an easy night, and kept about his work until noon to-day. At this time he noticed that his scrotum was beginning to swell, and he began to suffer both from the distension of his bladder and of the infiltrated tissue.

Patient entered the Hospital at 8 P. M. in great pain and distress. Temperature 103° , pulse 112 and intermittent. The bladder was as high as the umbilicus. The scrotum was as large as a child's head and very tense. The penis was much swollen and distorted. The glans was not visible, and the urine dribbled through the long, oedematous foreskin.

Operation by Dr. Porter, under ether. The scrotum was divided along the median raphe, and considerable bloody urine was evacuated from the tissue. The foreskin was then split upon the dorsum. The meatus was found to be practically closed, and would not admit even the finest filiform bougie. With some difficulty, a meatus was made. Then a filiform bougie was passed as a guide to the divulsor. Strictures were shown to exist both in the penile and deep urethra. After the divulsor had been passed, it was found impossible to introduce a No. 12 gum-elastic catheter. A Gouley staff was passed upon a filiform guide, and upon this staff perineal section was performed. A large quantity of ammoniacal urine was then drawn from the bladder. The bladder was washed with corrosive sublimate (1-5000), a catheter was tied in, and the wounds packed with iodoform gauze.

The patient reacted quickly after the operation. His pulse steadily improved, and he suffered practically no pain or discomfort. The wounds soon cleared and then began to granulate rapidly.

Three weeks after the operation the catheter was left out. The patient then passed all his urine by the penis. Four days later sounds were passed. These caused the patient considerable pain. That night he had a chill, and was very miserable for two or three days.

Four weeks and a half after the operation he sat up, and on February 13th, thirty-eight days after entrance, he was discharged. The only difficulty remaining was a granulating cleft in the scrotum. There was no pain or scalding on micturition, and no urine was passed by the perineal wound.

Remarks. Though there were other strictures besides the one at the meatus, yet this seemed from the history to be the one which was the cause of the trouble. The extravasation probably took place in the deep urethra at the weakest portion, and it was probably this spot that caused the inability to pass a catheter during the operation.

CASE IV. TRAUMATIC RUPTURE OF THE URETHRA: HÆMORRHAGE EIGHTEEN DAYS LATER.

G. D., aged nineteen, mechanic, Haverhill, Mass. January 23, 1888.

Five days before entrance the patient fell down an elevator-well, striking astride a beam. For two or three days he was able to pass his urine in small amounts, but only with great difficulty and pain.

For the first day after the accident there was blood in the urine. Two days ago his urine stopped. An attempt was made to introduce a catheter, but without success. However, upon the withdrawal of the catheter, the urine came freely. Last evening it became necessary to aspirate the bladder. The patient entered with his bladder dilated to the umbilicus, and having passed no urine since the aspiration. His scrotum and perineum and buttocks were much bruised and ecchymosed.

Under ether, Dr. Porter, first having cut the meatus and keeping the beak of the catheter against the roof of the urethra, was able to introduce a gum-elastic catheter with ease. The catheter was kept in place for a week, and during this time the patient suffered no special inconvenience. On removal of the catheter, there was no difficulty of micturition, except a slight scalding.

Three days later sounds were passed. These gave no inconvenience, and the patient was up and about the ward and expecting to go home the following day, when he complained of general "bad feeling" on the morning of the third day after the passage of the sounds. In the afternoon he had a slight urethral hæmorrhage, which was controlled by ice. The next morning a catheter was again tied in. This caused considerable discomfort, and was removed on the following morning, and the bladder washed out with boracic solution. During the next half-hour the patient passed about a pint and one-half of blood by the urethra. He became quite blanched. There was a tumor in the perineum. Dr. Porter at once decided to do perineal section. After etherizing the patient, a staff was passed into the bladder and perineal section performed. A large clot was turned out from the perineal tissues, and in the midst of this infiltrated mass three spurting arteries were found and tied. A number of other small bleeding points were also secured. A catheter was tied in and the wound packed with iodoform gauze.

There was considerable difficulty in keeping the catheter in place and in running order, and from time to time the urine would break through the perineum, escaping from the bladder around the catheter. The catheter was removed in twelve days. The urine was then passed by the perineum. Ten days later sounds were passed, and after this the urine was passed partly by the penis and partly by the perineum.

Two weeks later only a few drops of urine escaped by the perineal wound. Bougies have been passed several times. There is still considerable tenderness in the anterior urethra.

Fifty-one days after admission patient discharged.

Remarks. The interest in this case lies in the fact that the secondary hæmorrhage took place eighteen days from the injury, and three days from any operative interference. In the meantime there had been no special pain or tenderness. There was no hæmorrhage after the vessels were once tied.

CASE V. EXTRAVASATION SHORTLY AFTER PASSAGE OF AN INSTRUMENT.

Longshoreman, colored, aged forty-five.

Patient had his first attack of gonorrhœa about twenty years ago, and has had some urethral discharge nearly ever since. Several times he has had fresh attacks, and several times chancroidal sores. For some years past he has noticed a gradual diminution

in his stream of urine. Two years ago he had retention, which was relieved by catheterization. He was then given a catheter by his physician, and told to pass it every few weeks. For the past six months he neglected to do so, and during the latter part of this time his stream has been rapidly growing smaller and smaller. Night before last, he determined to try to pass his catheter. The catheter entered the stricture, which was about two inches from the meatus, and he tried to force it through, but was obliged to withdraw the catheter on account of pain. Some blood followed the catheter. The patient went to work the next morning. During the day his penis and scrotum began to swell, but he still kept at work. Next morning, after passing an uncomfortable night, things were still worse, and he sent for his physician, who advised his coming to the Hospital. This he refused to do until evening, when he entered at 8.30 p. m. Both penis and scrotum were extremely swollen, the penis measuring twelve inches in circumference.

Operation by Dr. Porter, under ether. The prepuce, which was nearly three inches in length, was laid open upon the dorsum. A filiform guide was then introduced with considerable difficulty through a stricture situated about two inches from the meatus. The divulsor staff was then passed, but the smallest-sized divulsor could not be forced through the tough, cartilaginous stricture. The staff and guide were withdrawn, and the scrotum and perineum were split in the median line and the urethra opened in the perineum. Through this opening a large amount of foul ammoniacal urine was withdrawn from the bladder. The divulsor staff was then passed from the perineal opening forwards, and the divulsor forced with great difficulty through the anterior stricture. The catheter was then passed and tied in. The skin of the penis was freely scored to allow the escape of urine from the infiltrated tissues.

The patient was comfortable on the next day, but on the second day had a chill in the afternoon, and the catheter was removed. Four days after the operation, the penis, which was still very large, began to slough. This was a decided surprise, as the dark skin had prevented any discoloration from showing, and everything appeared to be progressing favorably. The penis and scrotum were kept in phenyl poultices for the next two weeks. During this time large and very foul-smelling sloughs separated from the penis, leaving only strips of healthy tissue along the sides and underneath, and also the under part of the foreskin.

At the end of the two weeks the sloughs had all cleared off, and large granulating surfaces appeared between the strips of healthy skin. These strips were then turned upon the dorsum of the penis, so as to cover in as much granulating surface as possible. The long portion of the prepuce was turned downwards and backwards. The dressing is now done with ung. acidi boraci. The prepuce did not hold in place, but the strips materially aided in closing the granulating surfaces. The prepuce was then bound down with a strip of gauze, and after some time was made to adhere to the under side of the penis.

During the time that the sloughing and granulating process was going on the patient suffered intensely from erections. He would have them repeatedly the same night, and their frequency was unaffected by bromide or opiates.

The patient never passed urine by the perineal wound, but through an opening into the urethra at about the point of stricture, two inches from the meatus. After the passage of a bougie part of the urine would come by the meatus and part by the urethral fistula. The wound in the perineum had entirely healed; the cleft of the scrotum was granulating rapidly. The upper portion and sides of the penis had closed entirely, and the under portion was closing in.

At the end of eight weeks the patient was discharged, to return at some future time for operation upon the urethral fistula.

Remarks. In this case the anterior stricture was the only one present, and the urethra was ruptured just behind it. This accounts for the enormous infiltration of the penis.

The medical after-treatment of these cases was practically nothing. There was no call for diuretics, as the presence of the catheter in the bladder, or the relief caused by divulsion of the stricture, in some "reflex" manner seems to increase the flow of urine.

All the patients reacted quickly after the operations, and there was little or no call for stimulants. In only one case was there a chill soon after the operation. Here the catheter was promptly removed, and the patient given quinine. In three of the cases the catheter was retained for considerable time. There was no trouble from urethritis, and, indeed, so long as a catheter is in good running condition, patients at the Hospital seldom suffer any special inconvenience from its use. The catheter is held in place by a ligature tied about the catheter, and the ends are brought down along the side of the penis and held in place by a strip of plaster about an inch in width. A rubber tube, with a glass joint to enable one to tell at a glance whether or not the urine is running, is attached to the catheter and carried into a bottle which is suspended at the side of the bed. By this means all the urine is removed from the bladder by siphon. All wounds of this nature are packed after the operation with iodoform gauze. In a few days the gray sloughing condition disappears, and a dry, red surface remains. This condition will tend to remain if iodoform dressing is continued. If, however, the dressing is changed to a charpie dressing, soaked in balsam of copaiba, the granulations spring up almost immediately, and the granulation progresses much more rapidly than under any other dressing.

The only exception to be noted to this statement is in wounds in tuberculous subjects, and of this Case II is a good example.

TWO FORMS OF SKIN TUBERCULOSIS.

BY JOHN T. BOWEN, M.D.

As a result of the discovery of the tubercle bacillus, and of the greater precision offered to the diagnosis of tubercle by the histological advances of the last few years, attention has frequently been called to certain lesions of the skin, often obscure in their clinical appearances, which on pathological examination have proved to be examples of tuberculosis. Of late the examples have rapidly multiplied and a source of external infection has been demonstrated in many instances. Of especial interest as illustrating possible modes of infection, may be mentioned four cases ob-

served in Billroth's clinic, and reported by v. Eiselsberg.¹ In the first case the patient, a girl of sixteen, presented on the lobe of the ear, a hard, reddish-blue, non-ulcerated nodule, which appeared after wearing a piece of yarn, passed through the hole made for earrings. The second case is of an ulcer of the upper arm developing from a stab wound. In the third case a woman, aged fifty, after scratching an acne pustule on the face, developed at this spot an ulcer with thin jagged border. At the time this lesion appeared the patient had been washing the clothing of a woman ill with tuberculosis. In the fourth case there appeared a fistula on the arm, with a bluish appearance of the surrounding skin, at the site of a subcutaneous injection of morphia. Patient was a girl of twenty. In all of these cases the lesion was excised, and the characteristic appearances of tubercle found, as well as the tubercle bacillus. Other cases could be enumerated where the infection was derived from animals, for example, that of a veterinary surgeon who received a wound while opening the body of a tubercular cow, from which followed a tuberculosis of the skin, tuberculosis of the lungs, and death.²

Most of these observations unfortunately offer us but little light to guide us to a clinical diagnosis; indeed, the diagnosis has not usually been correctly made before the microscopical examination, and the whole subject is at present surrounded with great uncertainty and confusion. Two forms have, however, been extricated from this confusion, which are believed by some to represent distinct clinical types of tuberculosis; namely, a miliary form, and secondly the verrucous tuberculosis, tuberculosis verrucosa cutis of Riehl and Paltauf. (Lupus, which in the present state of our knowledge must also be regarded as a form of tuberculosis, offers us in most instances well-defined points of difference from these two types.)

I. Miliary Tuberculosis. This form has been met with only in subjects affected with rapidly-progressive tuberculosis of internal organs. Chiari³ reported the first case of this type, and was followed by Jarisch⁴ with the report of a case where the probable diagnosis was made *intra vitam*. Since then cases have been reported by Riehl, Schwimmer, Finger, and by several French writers. Chiari examined 7,000 bodies, (of which about sixty per cent. were tubercular), with reference to these lesions, with the result of finding them in five cases only, all on the lower lip. These lesions are described as shallow ulcers, situated at the juncture of the mucous membrane with the skin at the entrance to the mouth, nose, anus and vagina, and also upon the ear. The edges of the ulcer are said to be characteristic, being moderately firm and made up of a succession of small, jagged indentations, having an appearance as if "gnawed," (ausgenagt). Miliary tubercles, in the form of yellowish-white, transparent nodules, can be seen in parts of the ulcer. These lesions are rapidly progressive, all changes occurring by a degeneration of the miliary tubercles, and by the confluence of the small ulcers. This form has been often referred to as representing a true tuberculosis of the skin, and has been cited as an argument against the tubercular nature of lupus.

A case undoubtedly belonging to this class came

¹ Wiener Med. Wochenschrift. 1887. No. 53.

² L. Pfeiffer. Zeitschr. f. Hygiene. III Bd. s. 189.

³ Wiener Med. Jahrbücher, 1877. 3 Heft, s. 328.

⁴ Vierteljahresschrift f. Dermat. und Syph., 1879.