A CASE
OF
EXTREME PROLAPSE OF THE FEMALE
URETHRA
IN A CHILD AGED SIX.

BY
THOMAS BRYANT, M.CH., F.R.C.S.,
CONSULTING SURGEON TO GUY'S HOSPITAL.

Received March 6th—Read May 8th, 1894.

ON June 14th, 1893, I was asked by Dr. A. Atkinson to see Miss B—, aged six years, for what, on examination, proved to be a complete prolapse of the urethra. The child was not apparently in much suffering, but passed urine somewhat frequently. On examination, the vulva and the parts about were found bathed with a blood-stained mucus, and the everted urethra appeared as a rounded swelling nearly one inch in diameter, of a deep purple colour from congestion, and projecting about three quarters of an inch from the soft parts beneath (*vide* Plate V). Upon the surface of this swelling there was a central conical orifice, through which a catheter readily passed into the bladder. The urine drawn off was quite clear.

From the history of the case it appeared that, at the age

of three, after some genital irritation, the child's linen was stained with blood, but as this condition soon passed away with the local irritation, no examination of the child was made, and consequently no opinion as to the cause of her symptoms was formed. In the course of the next three years, three or four other similar attacks occurred, but each one passed off naturally in a few days.

The present attack came on five days before I saw her, with local genital irritation and straining, which, being supposed by the mother to be connected with the bowel, was treated as such by her, but not professionally dealt with.

On the third day, as the symptoms had steadily increased in severity and the discharge of blood-stained mucus became more copious, Dr. Atkinson was called in, and as he found the nature of the case was not very clear, he suggested that I should see it with him. When I first saw the child I confess to having been somewhat puzzled, as I had neither seen anything like it nor had I read of such a case. What I was looking at was a cherry-red, blood-oozing, projecting mass, and was clearly a prolapsed urethra, as indicated by the plicated folds of mucous membrane about a central depression upon the surface of the protrusion, and by the fact that this central depression proved to be the orifice of the urethra. The cause of the prolapse was, however, obscure. The question of its being a venous nævus was entertained but dismissed, as was the possibility of its being a urethral caruncle; for neither nævus nor caruncle could assume the appearances which this case presented.

The view I was inclined to take was that there existed some local irritation at the neck of the bladder, which had led to its severe expulsive efforts, and hence the prolapse; and in this view Dr. Atkinson coincided.

With this "working diagnosis" it was therefore arranged to give the child an anæsthetic and explore the bladder through the urethra by the introduction of the finger, the introduction of the finger being regarded as

the best means of reducing the prolapse. This was done on the 15th of June.

The introduction of my little finger through the urethra into the bladder was easily effected, after the passage of two of my small conical ivory urethral dilators ; but the result of the examination was negative, for I failed to find any evidence of bladder trouble, or indeed of any other urethral trouble, than its prolapse. I consequently completed the reduction of the prolapsed urethra by some digital compression, and left the case to natural repair, with the hope that as the mucous membrane of the urethra was extremely fissured in many places, the healing of these fissures and the subsequent contraction of the cicatrices would yield sufficient support to the urethra to bring about a cure ; and I may say that in that hope I have not been disappointed, since the child is now (seven months after the operation) quite well. Had I not found these fissures in the prolapsed mucous membrane, or sufficient loss of tissue to lead me to look for help from the healing process in effecting a cure, I should have cut off with scissors three or four strips of mucous membrane, radiating bladderwards from the orifice of the prolapsed urethra ; and this is the line of treatment I should advise in similar but less severe cases of this kind. In the one I have related it was not, however, necessary.

In the subsequent progress of the case there is not much to record. For four days after the reduction of the prolapse the urine had to be drawn off by a catheter ; at the end of that time the bladder resumed its power, but remained irritable, and was unable for about three weeks to retain its contents for more than two or three hours at a time. After that period everything progressed favorably. The soft parts about the urethra were swollen and painful for some days after the operation, but these symptoms soon disappeared, and the child, as I have reported, is now quite well.

I should like to add that, in the case related, the clitoris was unusually long and penile in form, with a well-made

prepuce, suggesting that the condition of the urethra, which allowed such a rare affection as prolapse to take place, might have been due to some malformation of the passage. It would be well for future observers to note this point.

Remarks.—On looking up this subject, I find that similar cases to the one I have just related have been recorded, but they are clearly very rare, since amongst my numerous surgical friends in this country I have hardly found one who knows anything about them. Under these circumstances I have been induced to put my notes of the case together, with an epitome of the scanty literature of the subject.

M. Guersant is reported ('Bulletin général de thérapeutique,' October 15th, 1866, p. 307, and Ranking's 'Abstract' for 1867, p. 213) to have met with twelve or thirteen cases of prolapsed urethra in girls from two to twelve years of age. He attributes it to the following causes :

(1) Repeated straining, as in the cough of pertussis and chronic bronchitis, and in the repeated and forced attempts at defæcation consequent upon constipation.

(2) General debility.

Guersant has met with prolapse of the mucous membrane of the urethra in young girls during a long convalescence from acute disease and during chronic affections. The infants do not suffer much from this affection ; there is sometimes a frequent desire to micturate, and scalding during the passage of urine. If the parts be examined, the vulva will be found redder than it usually is, and at the meatus urinarius will be observed a small rosy swelling, apparently proceeding from the interior of the canal, and the surface of which is formed of mucous membrane ; at the centre of this little tumour there is an orifice through which a sound may be passed and carried into the bladder. This state of things may continue for a long time without producing any disturbance, but sometimes the swelling increases gradually, and gives off a sanguineous discharge which afterwards becomes puru-

lent, its surface becomes irritated, and superficial sloughing may occur, with inflammation of the adjoining parts and vulvitis.

In the *treatment* of this affection Guersant prefers incision to cauterisation or the ligature, as the growth is by this means removed promptly and the child is sooner restored to its normal condition. The labia majora having been separated by an assistant, the prolapsed portion is drawn forwards either by a tenaculum or by a loop of thread, and then snipped off at one stroke of the scissors. If there be much hæmorrhage it may be arrested by the application of a solution of perchloride of iron, or by pressing for some seconds upon the part a small plug saturated with a styptic fluid. Frequent washing with cold water, and the occasional application of the stick of nitrate of silver, will suffice to produce cicatrisation.

Dr. G. E. Herman, of the London Hospital, published in the 'British Medical Journal' for February 9th, 1889, a case of prolapse of the mucous membrane of the female urethra which took place in a girl aged nine, who, from her early childhood, had had difficulty in holding her water any length of time, but had otherwise been well. On February 3rd, 1888, after the child had suffered for two or three days from a severe cough, which all domestic remedies failed to relieve, her mother was alarmed by finding a sanguineous discharge from the vulva. On February 6th, Mr. S. Welch, of Victoria Park Road, was sent for. He found a dark-red, cherry-like tumour in the situation of the meatus urinarius. On February 8th Dr. Herman saw the case with Mr. Welch. The tumour then consisted of a sort of thick frill, deep red in colour, projecting for rather more than half an inch from the lower part and sides of the meatus. At the upper part was an opening which the catheter entered. The tumour was not exceedingly tender, and the patient complained of no pain or difficulty in micturition. On February 14th, the state of things being much the same, except that there were some small sloughy spots on the most prominent part

of the protrusion, the patient was anæsthetised, and with a wooden staff in the urethra, the prolapsed mucous membrane was cut off all round with the platinum knife of the Paquelin's cautery. The child recovered well, pain in micturition being much relieved by the child passing water in a warm bath.

Dr. Herman writes :—"The morbid condition in this case (prolapse or inversion of the urethral mucous membrane) is a rare one. The literature relating to it is scanty, and much of it unsatisfactory, because in reading many of the reported cases one cannot help thinking as to some that they were cases of vesical tumours projecting through the urethra ; as to others, that they were simply urethral caruncles. Judging from the few cases that are well described, it seems to occur chiefly in children, and in the later years of childhood. It does not cause much trouble in micturition, but the protrusion is tender, although the tenderness is nothing like that of a urethral caruncle. The protruded mucous membrane often bleeds."

The method of *treatment* advised varies. Thus T. Emmet, of New York, recommends his "button-hole" operation ; that is, making a button hole in the urethra from the vagina, pulling out the mucous membrane at this button hole (so as to pull back the protruding part) and cutting it off, then sewing up the "button-hole."

Dr. Herman observes upon this matter that "it seems to me more rational to cut off the protruded and congested mucous membrane, rather than some healthy mucous membrane higher up, to say nothing of its being a simpler and easier operation."

In 1890 (*vide* article in 'Brit. Med. Journ.,' vol i, 1890, p. 854) the subject was discussed at the Berlin Obstetrical Society, and Dr. Benicke described three cases.

The *first* was eleven years old, the prolapse was slight, and readily cured by the application of the actual cautery.

The *second* child was ten years of age and robust ; the

urethra was greatly dilated and the prolapse very marked; it was reduced, and the meatus made narrow by means of one suture.

The *third* patient was also ten years of age; the prolapse was extreme and irreducible. The protruding mucous membrane was cut away, and the edges of the wound were united by catgut sutures.

Frequent and severe hæmorrhage was the chief symptom in all these cases; dysuria and allied forms of suffering were absent.

The causation of the prolapse could not be traced.

Dr. C. Ruge and Professor Martin stated their belief that prolapse of the urethral mucous membrane was caused by the development of a vascular growth under the mucosa, which also underwent partial hypertrophy. Martin mentioned that cutting off the prolapsed tissue sometimes caused the formation of a troublesome cicatrix; Professor Veit had never seen this result.

Prolapse of the urethral mucous membrane, which is in no way related to caruncle, is certainly *rare before puberty*. Several distinguished authorities who joined in the discussion *had never seen the disease in children*.

Dr. T. Gaillard Thomas, in his 'Treatise on the Diseases of Women' published in 1891, p. 154, says that he has seen such cases in adults of enfeebled constitution and in little girls before the age of puberty. He gives also a drawing of such a case, but it is evidently not of a severe example. Beyond these extracts I can find no other records of this affection, and trust that what I have written may prove of interest and instruction.

(For report of the discussion on this paper, see 'Proceedings of the Royal Medical and Chirurgical Society,' Third Series, vol. vi, p. 100.)