incision to shorten the skin over the dorsum of the joint or, where the nail is much thickened by chronic pressure, amputation of the terminal phalanx and removal of the whole nail should be performed. One long plantar flap from the pulp of the toe gives a good and comfortable stump.

DIVISION OF THE VAS DEFERENS IN PROSTATECTOMY.

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THE evolution, various techniques, management and complications of prostatectomy were exhaustively dealt with during the past year by Sir John Thomson-Walker, in his Lettsomian Lectures [1], by Young of Baltimore [2], and by the leading genito-urinary surgeons at the Royal Society of Medicine [3].

In this most interesting review, the complication of epididymo-orchitis and its sure prevention by ligation of the vas deferens, was stressed. Even Sir John Thomson-Walker, with his finished technique and mature experience, admitted the incidence of it in 6.4 per cent. of his cases, which is quite appreciable, but low compared with the experience of other genito-urinary surgeons, whose percentage of occurrence will probably be smaller than that of general surgeons. Against this must be placed the nine-year experience of Mr. Clifford Morson and other urological surgeons, with scarcely a case of epididymitis or orchitis. Morson makes a striking statement when he says, "I guarantee my patients that, whatever other complications they may have, they will never suffer from orchitis"; this means the [4] exclusion of a very irritating and debilitating condition, which occurs chiefly during the

first year after prostatectomy in at about 30 per cent. of cases. It frequently happens whilst patients are recovering in hospital or, as many practitioners will relate, after their discharge home, when it is explained by the statement to the patient that he "has caught a cold"; thus, on the day after his return home, one of my patients walked round his garden, and developed epididymitis next day; I think it was probably a coincidence.

This affection is excited by urethral trauma, e.g., after passing a bougie for difficulty in micturition after prostatectomy, by excess of alcohol, by exposure to cold, by the necessity of delay in emptying a full bladder and constipation.

It is a most painful and incapacitating complication, with marked pyrexia, and, unfortunately, recovery from one attack by no means confers immunity to its subsequent occurrence. Frequently, it recurs on the same or the opposite side or, occasionally, as described later, it is bilateral. Again, it often suppurates, necessitating further treatment by aspiration, or incision and drainage, or it may be necessary in a chronic case, where troublesome and persistent sinuses exist, to excise the testicle and part of the scrotum.

The origin of the infection is the prostatic bed, which quickly becomes septic after the operation and the organisms pass by the ruptured ejaculatory ducts to the vesiculæ seminales. These latter are larger than one ordinarily supposes from the impressions derived from the dissecting and post-mortem rooms and anatomy books; anyone who has seen the seminal vesicles in life, for instance during an abdomino-perineal resection of the rectum, will obtain a clear idea of the excellent but huge culture tubes which these blind, dilated vesicles make. Sepsis passes from them along the vas deferens, excited by the factors already mentioned, to produce the epididymitis.

A method of radical prevention would be to excise the vesiculæ at or before prostatectomy, as suggested by Sir J. Thomson-

Walker, and as practised in the extirpation of genital tuberculosis in the male, but this is too formidable an undertaking in prostatic subjects.

Ligature of the vas deferens does relieve the danger of epididymitis. Obviously, if there is sepsis already in the testicle or epididymis, this ligature operation will not cure it, but it will prevent further sepsis passing to them by way of the vas deferens.

The operation can be performed before prostatectomy as a small preliminary operation under local anæsthesia, or at one of the various stages of prostatectomy.

It is carried out as follows :—

The thumb and fingers take the upper fold of the scrotum containing the spermatic cord. This grip necessitates a little time to make it secure and firm, so that the vas deferens, which is an elusive structure, can be adequately held and later grasped. In practice, I find that it is most satisfactorily secured at the side of the root of the penis, when an incision half an inch long is made through the skin ; the vas deferens is pressed up under the wound and is then gripped and extracted from it by a pair of toothed artery forceps. Sometimes the coverings of the cord are stout and need to be "scratched" through before the vas can be seized. Usually there is no bleeding, although puncture of a vein and division of the artery to the vas deferens may occur with troublesome oozing. I have not experienced this, however.

The vas is divided for about 1 in. of its length, when it is firmly ligatured with catgut in two places $\frac{3}{4}$ in. apart, and a piece $\frac{1}{4}$ in. long is excised from between the ligatures. The ends are released and recede into the wound, which is closed by one horsehair mattress stitch. I have never seen any untoward event occur after this minor procedure.

Another variation practised by other surgeons is merely to divide or excise a piece of the vas deferens without ligature, but the occasional danger of a brisk hæmorrhage,

with a hæmatoma of the groin and scrotum from the divided artery to the vas deferens, makes me advise the careful ligature with absorbable catgut. When it is performed under local anæsthesia, I infiltrate the groin in the ward with 1 in 1,500 percaïne, and by the time the patient has reached the theatre, the anæsthesia is complete and the œdema of the injection has subsided.

The following cases illustrate the value of this simple proceeding before and after the prostate has been removed.

Case 1.—W., aged 72, had his prostate removed in one stage in July, 1930 ; it was one of the large, easily enucleating type of adenomas. At the operation I also tied both his vasa deferentia. There was a little difficulty during his convalescence ; he did not pass urine until the twenty-second day and was not dry until the thirtieth day. I attributed this to the fact that he had stood the operation badly and I had not been able to inspect and trim his prostatic cavity after the Thomson-Walker technique.

He returned a month later leaking slightly suprapubically, with some difficulty in micturition. I dilated him and he dried up and was relieved, but only to return a month later in the same condition. He was admitted to hospital and again dilated to take a $\frac{1}{4}$ Lister bougie easily and after ten days was dry. Three days later, on the morning fixed for his discharge, he complained of severe pain in one of his ruptures (he had two large inguinal herniæ, as is so often present in these cases). My house surgeon saw him ; he had a slight temperature and a tender, irreducible swelling in the groin which he considered was a strangulated hernia. He rang me up, volunteering the statement that one of my colleagues was in hospital operating, "should I ask him to see it ?" I agreed and he diagnosed "a beginning attack of epididymitis." The small scar, where the vas had been tied, at the lower extremity of the swelling, was scarcely visible.

I saw him next day ; the temperature was

lower and the swelling the size of a large walnut, smaller and less painful. The cord was the centre of the mass, which subsided during the next four days; the testicle being normal throughout. He has steadily improved during the past six months. Others report similar occurrences and even small abscesses occurring at the site of ligature, but never epididymitis.

I showed the above patient to my colleague, Mr. Corbett, who has kindly permitted me to describe the following similar case under his care.

Case 2.—An old gentleman of 70 had his life made miserable for three years after prostatectomy by repeated attacks of epididymitis, first on one side and then on the other, until both he and his family doctor felt they must have something done. This trouble was worse than the prostatic symptoms.

My colleague advised and performed ligature and division of the vasa deferentia, under local anæsthesia, with immediate relief, which has continued during the past year, giving him far more comfort than the prostatectomy did.

Case 3.—From Mr. G., aged 64, I had removed his prostate in two stages. He was a very poor subject, and on this account I had done the minimum of surgery on both occasions, and had omitted the ligature and division of the vasa deferentia.

After his first stage (when he was bordering on uræmia, his blood-urea being 150), he developed acute delusional uræmic insanity, with an ascending infection. To my surprise, he gradually recovered, only to develop an acute, itching, scaly dermatitis all over his head, body, and limbs; this again tried us to the uttermost.

Ten weeks later, I removed with the greatest difficulty a small fibrous prostate, from which operation, contrary to my expectation, he recovered without incident. He passed urine on the fifteenth day and was dry on the eighteenth.

On the day that he was to be discharged

his left epididymis became inflamed; it settled down with requisite treatment in five days, shortly after which he went home.

Three weeks later, he returned with a recurrence of the epididymitis on the left side; the swelling was fluctuant, and pus was aspirated on two occasions. It then began to subside, only for the right side to light up severely. His micturition was quite normal throughout.

I now ligatured and divided both vasa deferentia under local anæsthesia. Even in the presence of sepsis both sides subsided with dramatic suddenness.

He has now been well for three months, there being no residual trace of thickening or tenderness in the epididymes or testicles.

REFERENCES.

- [1] 1930 Lettsomian Lectures, *Procs. Medical Society of London*, p. 143.
- [2] *Proc. Roy. Soc. Med.*, Sect. Urology, April, 1930, p. 1689.
- [3] *Ibid.*, July 1930, p. 1289.
- [4] *Ibid.*, July 1930, p. 1296.

POST-GRADUATE NEWS.

FROM May 4 to May 30, an afternoon special course in Dermatology will take place at the St. John's Hospital, consisting of instruction in the O.P. Department, and lectures at 5 o'clock on Mondays, Tuesdays, Thursdays and Fridays of each week. The fee for the course is £2 2s. A practical pathological course can be arranged if desired at the fee of £4 4s.

An intensive course in medicine, surgery and the specialities will be held at the North-East London Post Graduate College (Prince of Wales's Hospital, Tottenham) in conjunction with the North Middlesex Hospital, North-Eastern Fever Hospital, and the L.C.C. Mental Hospital, from May 11 to May 23. Clinics will be held from 10.30 to 5.30 p.m. each day, including Saturday mornings. The mornings are devoted to