

THE PROBLEM OF POSTOPERATIVE HAEMATOMA OF THE SCROTUM

AN IMPROVED METHOD OF DRAINAGE OF THE SCROTUM AFTER OPERATION

L. HUMAN, M.B., CH.B. (PRET.), F.R.C.S. (EDIN.), formerly, *Department of Surgery, West London Hospital and Medical School*

Postoperative scrotal swelling due to a haematoma is notoriously common after operations on the scrotum, especially those for hydrocele. This leads to prolonged hospitalization and discomfort for the patient because of slow resolution and/or infection of the haematoma. Prophylaxis is the best method of dealing with this problem. Many methods have been used, none of which is entirely satisfactory. Complete haemostasis at operation is still the most important factor. Attempts have been made to support the scrotum in a variety of ways: (1) a 'T' bandage, direct pressure preventing oozing in the scrotum; (2) a suspensory bandage or support by an 'elastoplast' bridge between the thighs; (3) direct pressure by a carefully applied crêpe bandage, or by encasing the scrotum in plaster-of-Paris (Burkitt); and (4) suture to the anterior abdominal wall combined with pressure from wool and a 'T' bandage (Croot).

Drainage is not used by those surgeons who believe that infection may result through the open channel. Most surgeons, however, advise that the scrotum should be drained after operation. This can be accomplished by incising the skin at its most dependent part and by using either a corrugated, round, or glove drain; continuous suction has been tried without much success.

The technique to be described, which I have employed in about 20 cases, is that of button-hole drainage in the lowest part of the scrotum. In these cases there has been no trouble from postoperative swelling of the scrotum.

OPERATIVE TECHNIQUE

In the operation for hydrocele, a vertical scrotal incision is used and the various layers are incised and retracted using small Allis tissue-forceps. Identification of the cremaster muscle fibres leaves the internal spermatic fascia to be incised. The tunica vaginalis is identified by its pearly appearance. Then a plane of dissection is found, in the non-fibrotic case, between the internal spermatic fascia and the hydrocele sac. The sac is punctured and emptied, if large, then delivered through the scrotal incision and opened with a pair of scissors, the edges being held in forceps. After examination of the testis and epididymis the tunica is excised, leaving a narrow cuff round the testicle. Jaboulay's operation (eversion of the sac) is not favoured because of the bulk of the tunica remaining in the scrotum. Care must be exercised not to

damage the epididymis during this excision. Every bleeding point is now secured and the cut edge of the tunica is oversewn with a continuous suture of No. 00 chromic catgut on an atraumatic needle, with an occasional lock stitch. Haemostasis must be complete. The testicle is then replaced in the scrotum.

Next, a 2 cm. incision is made in the most dependent part of the scrotum, the edges being separated and everted by 2



Fig. 1. This shows the incision in the bottom of the scrotum which is stretched between index and middle fingers. The edges are separated and everted by 2 Allis tissue-forceps.

small Allis tissue-forceps (Fig. 1) and the cut edges of all the coverings of the scrotum, including the skin, oversewn with 2 continuous plain catgut sutures—1 for each half of the opening. Bleeding points are controlled. A corrugated rubber drain is then inserted to a depth of 3 cm. and fixed to the skin with a silk stitch. The scrotal incision is closed, after approximation of the dartos muscle and the other layers, with a continuous chromic catgut suture, and the skin with interrupted mattress sutures of silk, everting the edges.

A dry dressing is applied, and the area is supported with wool and a 'T' bandage. The drain is removed after 48 hours and the button-hole stitch is cut and pulled out. The scrotum is then supported in a suspensory bandage. The sutures are removed on the 7th day, and the patient is discharged the next day.

DISCUSSION

In the scrotum, the testis and tunica are covered by the

following definite and identifiable layers: superficial fascia, which is devoid of fat and contains the dartos muscle, an involuntary muscle whose tonic contraction gives rise to the peculiar rugosity of the scrotum; external spermatic fascia; cremasteric muscle and fascia; and internal spermatic fascia.

On incising the scrotum, it is at once seen how quickly these loose coverings extrude into the opening, thereby preventing adequate drainage. In addition, contraction of the dartos and cremaster muscles tends to constrict such an opening. The internal opening of a drainage tube with or without continuous suction is easily blocked in this way, rendering drainage ineffective. I believe that it should be possible to prevent this interference with drainage by use of the button-hole opening.

The method has been used successfully in 20 cases including hydrocele, cysts of the epididymis, epididymectomy, and orchidectomy. The average hospital stay has been 8 days compared to an average stay of 12.7 days in 44 similar cases which were treated during the past 2 years with the usual methods of drainage.

The drainage opening heals well. One small sinus, giving rise to a slight discharge for a week after leaving hospital,

occurred in only 1 case. Here the button-hole suture had not been removed on the 3rd day.

SUMMARY

A new technique for postoperative drainage of the scrotum is described. The average stay in hospital was 8 days, compared to 12.7 days in cases treated by other methods during the previous 2 years.

No postoperative scrotal haematoma has occurred in the cases reported.

I wish to thank Mr. A. Monro, F.R.C.S., Hammersmith Hospital and Postgraduate Medical School, London, for reading the manuscript; Mr. G. F. Grant Batchelor, F.R.C.S., West London Hospital and Medical School, for permission to publish the article; and Miss P. M. Turnbull, Department of Medical Photography, Charing Cross Hospital, London, for the photograph.

BIBLIOGRAPHY

- Bailey, H. and Love, M. (1959): *A Short Practice of Surgery*, 11th ed., p. 914, London: H. K. Lewis.
 Burkitt, D. P. (1951): *Lancet*, **1**, 1341.
 Croft, H. J. (1944): *Ibid.*, **2**, 625.
 Lee McGregor, A. (1957): *A Synopsis of Surgical Anatomy*, 8th ed., p. 217. Bristol: John Wright.
 Ozdilek, S. (1957): *J. Urol. (Baltimore)*, **77**, 282.
 Vernon, S. (1949): *Amer. J. Surg.*, **78**, 131.
 Wolf, M. (1939): *Surg. Gynec. Obstet.*, **68**, 236.
 Young, H. H. (1940): *Ibid.*, **70**, 807.