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A SIMPLE TECHNIQUE FOR REPAIR OF URETHRAL FISTULAE BY Y-V ADVANCEMENT

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Urethrocutaneous fistulae are a common complication of hypospadias repair. Their incidence varies from 5 per cent to as much as 91 per cent, with an average of 20 per cent to 30 per cent in the larger series. Sykes and Ho (1972) reviewed 193 treated cases and reported a fistula rate of 12·1 per cent in those repaired by the Kilner modification of Ombredanne, 45 per cent following Denis–Browne repair, 64·3 per cent after a modified Duplay, and an astronomical 91·6 per cent in cases treated by the classical Duplay method.

An important principle, stressed by Culp (1966) and all too often ignored in the repair of hypospadias, is the necessity to avoid superimposition of suture lines.

The same principle should be observed when repairing urethral fistulae and whenever possible the urethral closure should be covered by a local flap.

During the past ten years we have used a Y-V advancement to achieve successful repair in all twelve cases treated by this technique.

TECHNIQUE

A circumferential incision is made around the fistula, leaving a rim 1 mm–2 mm wide. A triangular flap is marked out in the area of maximum skin availability, with the fistula lying at the apex of the triangle. The Y is completed by an incision opposite the apex of the triangle (Fig. 1).

The flaps are raised, the mouth of the fistula freed and closed with a subcuticular purse-string suture (Fig. 2).

The triangular flap is then advanced as a Y-V thus covering the repaired fistula (Fig. 3) without the slightest tension.

A case treated by this technique is illustrated in Figures 4, 5 and 6.

CONCLUSION

The use of this simple technique has given us consistently good results in the repair of isolated urethral fistulae.

In our series, isolated fistulae were closed with a simple subcuticular purse-string suture, using 6/0 Dexon. In an alternative method, described by Davis (1950), the two ends of the purse-string suture can be brought out into the urethra itself to appear at the external meatus, where they are held in position by elastic traction from a suture fixed to the abdominal wall. This manoeuvre helps to offset the closed lining of the urethra from the outer skin

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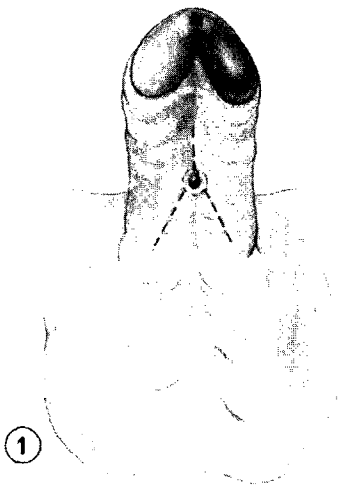

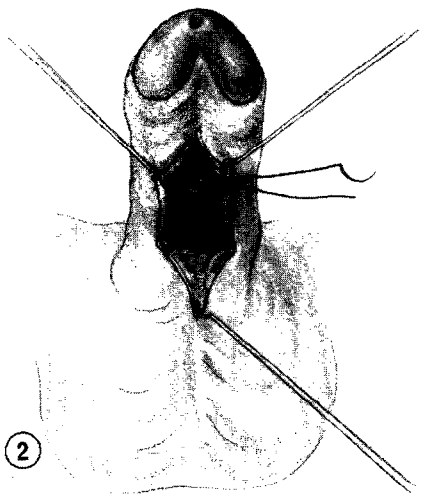

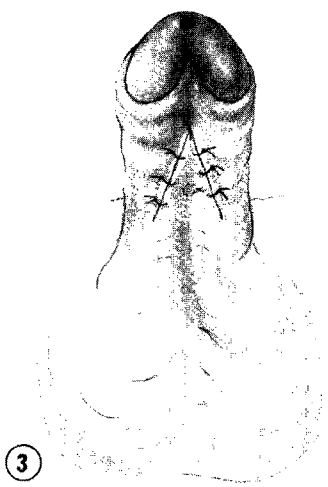

FIG. 1. Diagram to illustrate the circumferential incision made around the fistula and the design of the adjacent triangular flap.

FIG. 2. The triangular flap has been raised to give good exposure of the fistula which is closed by a purse-string suture.

FIG. 3. The triangular skin flap is now advanced distally to cover the repaired fistula and avoid any superimposition of suture-lines.

suture. The purse-string suture separates spontaneously with the passage of time.

It must be pointed out that the Y-V method is not indicated for multiple fistulae or the so-called "hypospadias cripple". In such cases we prefer to join the fistulae, laying the urethra wide open, and then repair the defect at a later stage by the Cecil–Culp technique.

We are indebted to Mrs Angela Christie for the diagrams and to Mr Derek Griffin for the photographs.

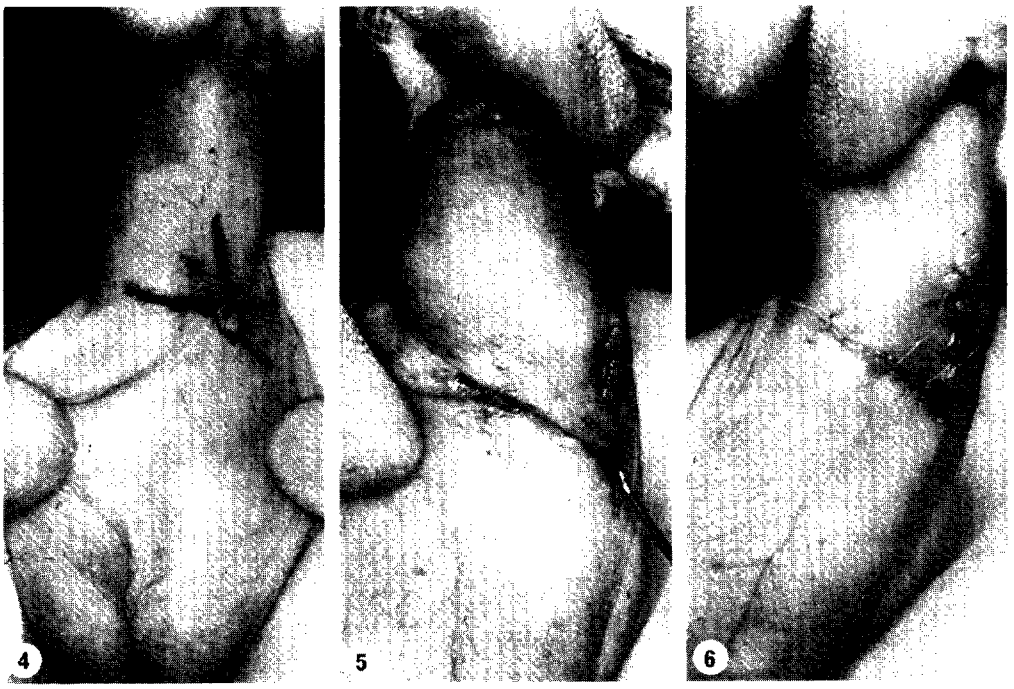

FIG. 4. Fistula at the base of the penis showing a triangular flap based laterally.

FIG. 5. The triangular flap is advanced medially to cover the fistula.

FIG. 6. Completion of the repair.

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