ORCHIDOPEXY USING A DARTOS POUCH
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THE undescended testis is more susceptible to trauma (Gross and Jewett 1956) and to malignant change (Collins and Pugh, 1964; Altman and Malament, 1967) than the normally placed testis. It has been shown that degeneration in an ectopic testis begins at about the age of 5 years (Scorer 1967; Cohn 1967). It is therefore generally accepted that orchidopexy should be carried out at around the age of 5 years.

The objects of surgery in this condition are threefold:
1. To secure adequate length of spermatic cord and vessels so as to deliver the testis into the scrotum without tension.
2. To anchor the testis in the scrotum so that it remains there indefinitely.
3. To deal with any associated condition such as an inguinal hernia.

The operation described by Whitaker (1970) and Pryn (1972) of anchoring the testis in a dartos pouch, fulfils these requirements, as well as having some advantages over other techniques.

OPERATIVE TECHNIQUE

Mobilisation of the testis and cord structures is carried out in the usual way through a groin incision. When adequate mobilisation has been achieved, a finger is passed from the inguinal canal down into the scrotum, fashioning a tunnel through which the testis can be passed, and dilating the scrotum. At the apex of the scrotum on the appropriate side, an incision is made about the size of the testis, through skin only. The skin edges are undermined, using blunt dissection, so that a pouch is made between skin and dartos muscle. A pair of forceps is then passed into the scrotum from above, and punched through the dartos muscle underlying the scrotal incision. The testis is then drawn down into the scrotum and through this opening in the dartos. The dartos is repaired around the cord with catgut, so that the testis cannot retract. The scrotal skin is closed over the testis, and the inguinal incision is repaired in the usual way.

DISCUSSION

A number of techniques have been described for anchoring the testis in the scrotum. Some are now mainly of historic interest (Keetley 1894, Torek 1909, Ombrédanne 1910, Browne 1933). At present, the most popular method is to pass a nylon suture through the tunica albuginea at the lower pole of the testis, pass the suture through the scrotum from within out, and anchor it to one or other thigh (Cabot and Nesbitt 1931, Wangensteen 1932). This method has several disadvantages.

1. The anchoring suture must be left in place for at least 5 days, increasing the risk of infection, and requiring a fairly lengthy stay in hospital.
2. The tension on the testis varies with the movement of the patient, and may at times be severe, risking possible damage to the testis and its vessels.
3. Removal of the anchoring suture may lead to retraction of the testis, a situation which will not correct spontaneously.

In addition, the inexperienced surgeon may be tempted to put excessive traction on the anchor suture, in order to make it lie low in the scrotum, leading to possible damage to the testis or vessels.

The dartos pouch technique, where the traction exerted is both gentle and permanent, does not have any of these disadvantages.

| Case No. | Age | Side    | Duration of stay in hospital | Length of follow-up | Comments                      |
|----------|-----|---------|------------------------------|---------------------|-------------------------------|
| 1        | 7 yrs | Bilateral | 5 days                       | 13 months           | Bilateral inguinal herniae    |
| 2        | 8 yrs | Right   | 3 days                       | 14 months           | Right inguinal hernia         |
| 3        | 8 yrs | Left    | 2 days                       | 8 weeks             |                               |
| 4        | 8 yrs | Right   | 2 days                       | 7 weeks             |                               |
| 5        | 10 yrs | Left    | 3 days                       | 12 months           |                               |
| 6        | 9 yrs  | Right   | 2 days                       | 13 months           |                               |
| 7        | 9 yrs  | Left    | 2 days                       | 14 months           | Testis high in scrotum after operation |
| 8        | 12 yrs | Left    | 3 days                       | 6 weeks             | Right inguinal hernia         |
| 9        | 11 yrs | Right   | 3 days                       | 7 months            |                               |
| 10       | 6 yrs  | Left    | 2 days                       | 7 weeks             |                               |
| 11       | 28 yrs | Right   | 3 days                       | 12 months           | R.I.H. repaired aged 7        |

The table shows a personal series of 12 orchidopexies in 11 patients using the dartos pouch technique. In all of the cases the testis was well down in the scrotum at follow-up, varying from 6 weeks to 14 months. In case 6, the testis could only be mobilised into the upper part of the scrotum at operation, but at follow-up it was found to be in the lower part of the scrotum. This finding appears to bear out Pryn's contention that the constant contraction of the dartos muscle exerts continued gentle traction on the testis, resulting in further spontaneous descent. Because of this, the technique may also be useful in cases of high undescended testis, where insufficient length can be obtained to bring the testis to the bottom of the scrotum. This situation is usually dealt with by operating in two or more stages. Breder and Wulfsohn (1967) have suggested that sufficient length can be obtained by dividing the spermatic artery, after suitable precautions to avoid ischaemia of the testis. Using the dartos pouch method, it may only be necessary to mobilise the testis into the upper part of the scrotum, relying on the traction of the dartos muscle to complete the descent.

The final advantage of this technique is demonstrated in the table. With the exception of case 1, which was bilateral, none of the patients spent longer than 3 days in hospital after the operation. Using this method, there is probably no reason to detain any patient, including the bilateral cases, in hospital more than 24 to 48 hours post-operatively.
SUMMARY

A technique for orchidopexy using a dartos pouch is described. It is claimed to have several advantages over other techniques.

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