Medical Memoranda

An Operation for Femoral Hernia

The discussion on femoral hernia in the *British Medical Journal* of October 23 and November 6 and 13, 1948, has prompted me to describe, before I intended doing so, a method of closing the femoral canal which I have been using and which I think fulfils all the requirements of an operation for femoral hernia. In it no foreign unabsorbable material is used, with the occasional disappointment which this sometimes engenders. (Patients seem more disgruntled at having a chronic sinus from foreign material than if they had had a recurrence.) The canal is closed at the inlet by a living membrane that is always at hand. Very large openings are easily closed by this means.

The method puts no strain on the external oblique muscle. Any method that pulls down the inguinal ligament to Cooper's ligament in the high operation, or to the pectineal fascia in the low-type operation, produces a strain on the external oblique tendon and is often followed by rupture of the fibres here and a weakening of the inguinal canal. Hence the tendency to inguinal hernia after high or low operations in which the inguinal ligament is pulled down to one of these structures. When I have used the method here described there has been no subsequent discomfort.

TECHNIQUE

I recommend the method for trial as I feel that no individual surgeon sees a sufficient number of femoral herniae in a limited time to appraise a method fully. The operation can be done with comfort for the patient and surgeon under local analgesia. A point in the simplification of the operation is the use of the Trendelenburg position.

The most satisfactory skin incision is one over the inguinal canal and curving down over the femoral sac at its inner end. This allows a good vision of the inguinal canal area and of the sac and the pectineus muscle with its coverings.

The sac is accurately freed from the surrounding fat and fascia; if large, the redundant part of the sac should be excised to facilitate the sac's being drawn up through the canal. The external oblique muscle over the inguinal canal is then incised as in inguinal hernia. The cord or round ligament is drawn up, the transversalis fascia is incised, and the extraperitoneal fat is exposed. The neck of the sac entering the femoral canal is gently pulled on, and by careful teasing the whole sac is pulled up from the femoral canal. The bladder is carefully separated from the sac on the inner side and a high closure of the sac made. The ligated portion and peritoneum are now pushed upward and the ileopectineal line, with Cooper's ligament, is exposed. A good exposure is obtained with the Trendelenburg position.

Cooper's ligament extends down over the pectineus, where it blends with the pectineal fascia. The fascia is exposed from the ileopectineal line above to below the inguinal ligament by gentle wiping with a gauze swab. The medial border of the iliac and femoral veins is noted. This gives the outer

border of the fascial leaf to be utilized and defines the breadth of fascia to cover the opening of the femoral ring. The fascia is incised along this line from Cooper's ligament to below the inguinal ligament, and the fascia is separated from the bone and underlying pectineus muscle by blunt dissection.

The fascia is cut across about $\frac{1}{4}$ in. (1.9 cm.) below the inguinal ligament. It can now be pulled upwards so that it hangs freely above except where it is hinged at Cooper's ligament (Fig. 1). This flap, which is naturally strong, is then laid without tension along the upper concave edge of the inguinal ligament and fixed here with two or three interrupted 40-day cat-gut sutures (Fig. 2). This effectively blocks the upper opening of the canal. The transversalis fascia is sutured accurately back in position and the external oblique muscle incision closed (Fig. 3).

FIG. 2.—The flap of fascia has been pulled up and is ready to be laid upon the upper surface of the inguinal ligament.

FIG. 3.—The flap of fascia has been stitched to the upper concave edge of the inguinal ligament.

COMMENT

Since writing this short description of an operation for femoral hernia I have read A. K. Henry's article (*Lancet*, 1936, 1, 531) where he suggests an operation in which he uses the pectineal fascia in much the same way for the closure of the upper orifice of the femoral canal. Unfortunately, his unusual mode of approach has evidently overshadowed the suggested method of closure of the canal, for it has not been mentioned in any of the recent articles on the subject, and this short description is published with a view to popularizing this method of closing the canal. Henry's method of approach does not give a good view of the pectineal fascia and renders the operation difficult. The most satisfactory incision is the one I have described.

G. D. F. McFADDEN, M.Ch., F.R.C.S.

Branchial Fistulae

Proximally blind lateral cervical fistulae opening in the vicinity of the anterior border of the sterno-mastoid, and extending a variable distance up the neck, are not uncommon. Apart from their persistence and occasional discharge, they cause little disability, and where excision is indicated the procedure is simple provided their origin lies external to the carotid sheath. Consideration of the development of the visceral arches confirms the view that these branchial fistulae are probably derived from the cervical sinus, which in the embryo is normally shut off from the pharynx by a septum of tissue, the cleft membrane. Consequently the presence of a complete fistula communicating internally with the pharynx and presenting an external opening in the neck may be considered a rare condition.

FIG. 1.—The pectineal fascia has been separated from the underlying pectineus muscle and is ready to be drawn upwards above the inguinal ligament. A=Superior ramus of pubes with Cooper's ligament. B=Blunt dissector raising fascial flap. C=Inguinal ligament.

CASE REPORT

The case is that of a girl aged 16 who complained of a small discharging sinus in her neck. She stated that to her knowledge it had been present since birth, and that periodically it became more noticeable and discharged a clear coloured fluid for several days.

FIG. 1.—Opening of branchial cyst in neck.

On examination a barely noticeable papule was present over the anterior border of the left sterno-mastoid and situated about 2 in. (5 cm.) above the suprasternal notch (Fig. 1). There was no discharge at the time, and it was found impossible to get a very fine probe into what was apparently a closed punctum. However, extending upwards from this towards the angle of the jaw was a slight but just visible cord-like thickening comparable in diameter to an ordinary lead pencil. On asking the patient to open her mouth and upon milking this thickening upwards, a good teaspoonful of whitish fluid was seen to exude from the region of the suprastonsillar fossa.

Under anaesthesia and after packing off the pharynx, a large ureteric catheter was passed with ease through a visible ostium opening above the left tonsil. Lipiodol was injected, and a subsequent radiograph (Fig. 2) confirmed the provisional diagnosis of a complete branchial fistula communicating with the pharynx.

FIG. 2.—Lateral view of fistula after injection of lipiodol.

COMMENT

Surgical ablation of such a fistula entails a moderate-sized incision and a careful dissection in the region of the internal carotid artery, due respect being given to the proximity of both the glosso-pharyngeal and the facial nerves. Access to the pharyngeal closure of such a fistula is best aided by lateral displacement of the tonsil by means of a finger in the mouth. The mere presence of a branchial

fistula is in my opinion no indication for surgical intervention, and certainly before the latter is contemplated the extent of the tract at least should be investigated.

I wish to thank Dr. G. A. Borthwick, superintendent of the Northern Hospital, N.21, for permitting me to publish this case.

WILLIAM ROTHWELL, F.R.C.S., F.R.C.S.Ed.

Hyperpyrexia Complicating Infantile Eczema

Cases of sudden death in patients suffering from infantile eczema have been reported from time to time. Schwartz (1934) reviewed 10 such cases, and Feer (1904) reported others. These deaths seem to have been due to intercurrent infections, such as septicaemia, bronchopneumonia, or gastro-enteritis, which have run a more rapid course in these children than is usual. None of these appear to resemble the following case.

CASE REPORT

The patient, a boy aged 13 months, had suffered from eczema since birth. On admission he had large patches of eczema, partly impetiginized, covering the greater part of all four limbs, the trunk, the face, and the scalp. The skin was treated with compound zinc ointment, and chloral was given by mouth to allay restlessness. The eczema improved greatly during the first week. The skin, however, became dry and showed powdery desquamation.

On the eighth day after admission a convulsion occurred, together with vomiting, pin-point pupils, and the passage of faeces. The skin felt extremely hot, and on taking the temperature in the rectum the mercury reached the end of the thermometer. Repetition with a second thermometer produced the same result. Both were subsequently tested, and the temperature required to bring the mercury to the end of the thermometers was found to be 110° F. (43.3° C.). Tepid sponging was started immediately, and the temperature was plotted every fifteen minutes. After half an hour the temperature was 106° F. (41.1° C.), and after one hour 104.8° F. (40.45° C.). Consciousness was regained four hours from the onset of the convulsion. The temperature was then 100° F. (37.8° C.).

Investigations were carried out to exclude intercurrent disease. The E.S.R. was 12 mm. in one hour. The urine showed a trace of albumin, but no abnormality was found in the C.S.F., the differential white cell count, or in the x-ray picture of the chest.

Progress was uneventful. A low-grade pyrexia persisted, but the eczema cleared except for a small patch on the shoulder. At the time of writing, eleven months later, the child is still attending as an out-patient. His skin remains dry and there are a few eczematous patches.

COMMENT

Hyperpyrexia is a possible and dangerous complication of infantile eczema in which a large proportion of the body surface is involved. In this case the combination of hyperpyrexia, pin-point pupils, convulsions, and unconsciousness also raises the possibility of a pontine lesion. Vasomotor spasm in the pons offers a reasonable explanation of the transitory nature of the signs.

Gratitude is expressed to Dr. F. A. Bryning, medical superintendent of Hackney Hospital, for permission to publish this case, and to Dr. F. L. Lydon, consultant dermatologist, for advice on its presentation.

E. MACLEAN POULTON, M.R.C.P., D.P.H., D.C.H.,
Hackney Hospital, London.

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