AN ADJUSTABLE FASCIA LATA SLING FOR THE CORRECTION OF
BLEPHAROPTOSIS

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WHEN the levator palpebrae muscle excursion is less than 3 mm, suspension of the eyelid is the method of choice. The technical details of the sling operation are easy to execute but accuracy in elevating the droopy lids to optimum height in bilateral cases or matching the unaffected opposite eyelid is difficult to achieve. Under-correction occurs quite often and in a few instances over-correction has been observed.

Synder and Norton (1961) devised a method of sling adjustment by attaching pull-out wires to the fascial strip ends and bringing these out at the hair margin over the forehead. By twisting the wires over a bolus the fascia could be tightened to provide additional elevation to the lid. A simplified version of this technique will be described.

METHOD

A strip of fascia lata 2 mm wide and approximately 12 cm long is obtained. Each end is threaded into the eye of a large curved needle. Two stab incisions are made 5 mm from the lid margin and about 2 cm apart in the middle third segment of the eyelid. If simultaneous correction of blepharochalasia is to be carried out the skin excisions are performed and the stab incisions are omitted. The fascia strip is first inserted into the subcutaneous tissue parallel to the lid margin. The ends are reintroduced into the same incisions and directed in a slightly divergent fashion toward the superior orbital rim where they are brought out through 2 stab incisions at the upper margin of the eyebrow. If the fascia strip is short the ends are affixed to the wound with skin sutures keeping them exposed. When the strip is long the curved needles are replaced with long straight needles or long probes. They are re-introduced into the brow incisions and passed deeply through the subcutaneous tissue to emerge at 2 stab incisions at the hairline. The eyelid is then lifted to the desired position and the exteriorised ends of the fascia transfixed with skin sutures to the wound. The rest of the incisions are closed. An antibiotic ointment is applied to the incision sites and a pressure dressing is maintained over the forehead for at least 24 hours. An ophthalmic ointment is applied to the eye to protect the cornea. The lower lid is elevated by a suture or Steri-strips are taped to the skin to close the palpebral fissure.

In 2-5 days when the oedema has completely subsided, the patient is seated in front of the examiner and instructed to look straight forward. If additional elevation is required the skin sutures which secure the fascia to the wound are removed. Gentle traction is applied to the ends of the fascia, until the lid is elevated to the desired height. The patient is then instructed to attempt forced closure of both eyes; the cornea should be covered when the eyeball rotates superiorly (Bell's phenomenon). When the superior rectus is weak it may be necessary to under-correct the elevation in order to prevent corneal exposure during sleep. After final adjustment is determined the fascial ends are secured to the wound either by sutures, sterile pins or clips. They are allowed to slough off spontaneously or are trimmed after 10-14 days. At this time sufficient adhesions along the entire fascia should prevent slackening of the sling.
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Discussion

The post-operative adjustment to the sling is a gentle manipulation which entails little or no discomfort to the patient but which determines in large measure the success of the operation (Figs. 1-4). The advantages of delaying the adjustment are obvious. The patient is fully conscious and co-operative. The position of the eyelid, when free of oedema, can be determined more precisely with the patient in an upright position and looking straight in front. The effect of gravity is thus compensated. These conditions cannot be fully controlled at the time of surgery, when the patient is recumbent and well sedated.

FIG. 1. 25-year-old male with congenital ptosis.
FIG. 2. Immediate result showing persistent under-correction.
FIG. 3. Adjustment 5 days post-operatively.
FIG. 4. Result at 8 months.

The only complication encountered was adhesion of the fascia to the skin of the lid margin causing notching. This can be avoided by placing the strip deep in the subcutaneous tissue away from the ciliary margin. Release of the skin adhesion was accomplished and entailed no difficult dissection. Infection at the site of exteriorisation has been minimal and quickly resolved once the exposed ends were trimmed. The small surgical incisions usually healed as unobtrusive scars.

Summary

Another method of adjusting the fascia lata sling post-operatively for ptosis is described.

Reference