



Short reports and correspondence

Posterior auricular muscle—a useful adjunct in otoplasty

Prominent ear is a common congenital anomaly affecting approximately 5% of the general population.¹ There are numerous techniques for correction described, with continuing debate on which operative method achieves the best results.² Some surgeons advocate a single technique for correction of all types of prominent ears, whilst others recommend individualised treatment.³ In this correspondence we would like to describe a modification using the posterior auricular muscle.

The posterior auricular muscle is one of the three extrinsic muscles of the external ear. It has been previously demonstrated that the muscle influences the position of the auricle relative to the cranial surface. One study has suggested that the posterior auricular muscle is significant in the pathogenesis of prominent ears,⁴ and electrical activity occurs in this muscle in relation to certain movements of the ear and face.⁵ Results of another study demonstrate a linear relationship between the posterior auricular muscle insertion site and ear projection.¹ The findings of this study strongly support transposition of the posterior auricular muscle insertion site on the scapha. We regularly adopt this technique, especially for patients with valgus of the concha.

The posterior auricular muscle can be clinically delineated by valgus traction on the ear. It is clearly seen, forming a ridge of the overlying skin, in the sulcus of the posterior auricular region (Fig. 1). A standard dumbbell shaped incision is used and postauricular skin is excised. Dissection is carried out posteriorly, till the posterior auricular muscle is seen. The muscle attachment to the scapha is dissected, transfixed with a 5/0 Monocryl stitch and detached completely (Fig. 2). Further dissection is down to the mastoid fascia. This is followed by three to five conchomastoid sutures using 5/0 Monocryl.⁶ Multiple conchomastoid sutures facilitates total conchal setback. The posterior auricular muscle is then transposed on an anterior location on the scapha. Anterior scoring or Mustarde type of mattress sutures can be used after anterior dissection, if necessary.



Fig. 1 Posterior auricular muscle seen on clinical examination.

The effect of transposition is to create a posterior muscular strut, which adds to conchal setback. We feel that transposition of the posterior auricular muscle has a useful role as an adjunct to otoplasty, especially in valgus of the concha and use this technique whenever a posterior auricular dissection is carried out.



Fig. 2 Posterior auricular muscle prominently displaced on posterior dissection towards the mastoid.

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Patient selection for endoscopic-assisted lower limb surgery

We read with interest the excellent paper by Basmacioglu et al.¹ describing a technique for endoscopic-assisted harvest of the medial gastrocnemius muscle flap. As a group, plastic surgeons have been relatively slow to use the improving technology of endoscopic surgery to facilitate our operations. We are particularly happy to see this progression of a technique first described by the senior author in 1997.²

Lower limb endoscopy remains a challenging and potentially hazardous technique with a number of possible pitfalls. Soft tissue endoscopy relies on the creation of an optical cavity, which is difficult both to produce and maintain. Most limb endoscopy requires dissection between anatomical planes to create such a space and retraction to maintain it. The technique, therefore, relies on tissue elasticity as much as good quality optics. Since the limb can be considered as an inverted cone shape it is generally true that the further distal one moves on the limb the more difficult the technique becomes. This is a consequence of the reduction in size of the

limb and, therefore, absolute extensibility when stretch is applied.

In clinical practice, this has a number of important consequences. Particular attention should be paid to patient status. Any factor, which results in reduction in skin quality, such as steroid usage, should be noted as we have experience of a clinical case in which retraction lead to tearing of the skin. It is also important to elicit any history of previous injury (e.g. fractures) or hobbies (e.g. contact sports or martial arts), which may lead to recurrent trauma. Such damage may result in the loss of normal anatomical planes as a consequence of fibrosis and scarring. We have personal experience of a young male kick boxer in whom all anatomical tissue planes were apparently destroyed and endoscopic-assisted Sural nerve harvest rendered impossible.

Basmacioglu et al. point out that this technique is of particular advantage in the treatment of younger patients in whom the avoidance of sizeable scar is desirable. Unfortunately in our experience the majority of patients who would appear to be best served by such a technique are elderly with one or more risk factors for poor skin quality.

Distal limb endoscopic-assisted surgery continues to be a technically challenging procedure and, therefore, one must take into account adverse patient factors. Despite this it remains a useful technique with much to offer to the Plastic and Reconstructive surgeon.

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