Helical Rim Advancement Flap

Defects of the pinna are challenging for the surgeon and patient. Patients will rely on a structure that can support glasses and hearing aids. Maintenance of the aesthetic contours of the ear are also of importance. Traditionally the wedge excision for pinna defects has been the mainstay of managing defects of the helix. This involves resection of the skin and cartilage of the helix and auricle. While this is a simple and effective procedure, occasionally the cartilage edges may spring apart over time leading to a ‘notched’ pinna appearance. We believe that the helical rim advancement flap described by Antia and Buch offers a superior aesthetic result.

Preparation
Preoperatively patients should have photographic documentation of their lesion. Performing an auricular block will provide good anaesthesia of the pinna. Infiltration of the skin of the pinna will help to separate the subcutaneous tissue from cartilage as a form of ‘hydrodissection’. It is also advantageous to mark out all margins and incision (Figure 1).

Procedure
The area of helical rim is resected with skin and cartilage together (Figure 2). The resultant defect is rectangular. The helix is then separated from auricular cartilage using the scalpel (Figure 3). How much helix is released either side of the defect depends on its size. It is likely that a small amount of auricular cartilage will need to be trimmed to allow closure. If closure is difficult up to 1.5cm of the earlobe can be borrowed in elderly patients. A non-absorbable monofilament suture is used to unite the edges of the helix in an interrupted fashion. The anterior and posterior incisions are closed with a continuous undyed dissolving suture. The result of this simple procedure is...
aesthetically strong as the contours of the pinna are preserved (Figure 4). Disadvantages include that the blood supply to the chondrocutaneous flaps are based solely at their original attachment site therefore distal necrosis may occur. Although this method does reduce the vertical length of the pinna, good aesthetic results are still obtained (Figure 5).

**Postoperative care**

Chloramphenicol ointment is applied to wounds for five days. Postoperatively five days of penicillin are also prescribed. Non-absorbable suture removal is one week later.

**Conclusion**

The helical rim advancement flap takes slightly longer to perform than the wedge excision, however we believe that the aesthetic results are superior.

**References**


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