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Correction of the hypertrophic conchal bowl without cartilage excision

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Summary We present our technique for conchal bowl reduction. The procedure is fast, easy to learn and reproducible. The technique has now been used in a consecutive series of 208 ears. We describe the steps taken and the outcomes. The main aims of this procedure were; the preservation of conchal bowl width and avoidance of cartilage excision. This cartilage can then be used for grafting if a rhinoplasty is considered in the future.

Introduction

Current techniques for correction of a hypertrophic conchal bowl can result in; narrowing of the concha,[1] the dreaded "telephone-ear" deformity[2] or visible scars (if the approach is anterior).[3] The technique we present is minimally invasive and avoids these problems while preserving the natural look of the ear by maintaining the normal width of the concha and only reducing its depth. It also preserves the excess conchal cartilage in-situ so that it is available for use in rhinoplasty surgery in the future. Recurrence is negligible because the natural elasticity of the cartilage in this region of the auricle is destroyed. We present details of this technique which we have used in 208 ears.

Methods

Permission for this study was obtained from the local ethics board for the hospital.

Surgical technique

Both ears are prepared and exposed. If the anti-helix is hypoplastic,[4] this should be corrected first to make it easier to estimate the reduction of the concha required. A strip of post-auricular skin (5—10 mm in width) is excised (Figure 1(**A** and **B**)). There is no need to excise skin if only a small setback is planned. The skin incision (Figure 1(**B**)) is shorter than the cartilage incision (Figure 1(**C**)).

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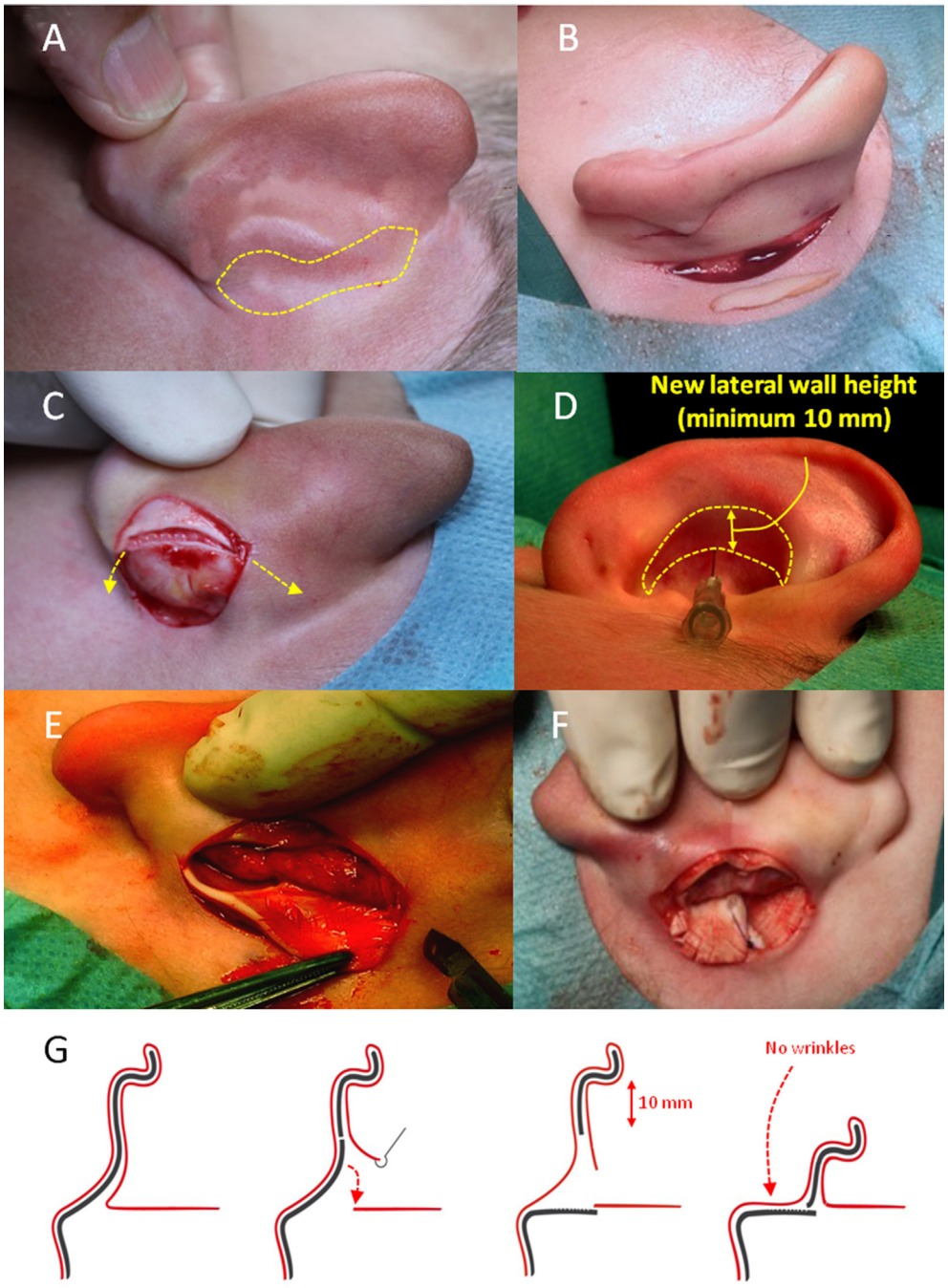

Figure 1 **A**. Post-auricular skin markings. **B**. Excision of a small strip of skin (size depends on extent of setback). **C**. Curved incision in the conchal bowl — extended superiorly and inferiorly (yellow arrows) beyond the extent of the skin incision. **D**. Preserving lateral conchal wall height at a minimum of 10 mm. **E**. Medial conchal cartilage flattened by anterior scoring. **F**. Medial conchal cartilage further flattened with radial scoring and absorbable sutures. **G**. Line drawing summarizing the operative steps. Wrinkling of the medial skin is avoided by ensuring that the lateral wall is setback at the edge of the flattened conchal cartilage.

The cartilage incision has the same semicircular shape as the proposed anti-helix. Extending this incision as high and as low as possible (Figure 1(**C**) — yellow arrows) allows the entire pinna to move easily once the dissection is complete. The height of the new lateral conchal wall should never be less than 10 mm (Figure 1(**A** and **D**)). The anterior skin is dissected free — perforations of the skin are easily sutured or taped.

The medial concha is flattened by scoring until it loses its elasticity (Figure 1(**E** and **F**)). Full thickness, radial, incisions can help to flatten the cartilage further (Figure 1(**F**)). The flattened position is maintained with 4—0 polydioxanone sutures to hold it against the mastoid fascia (Figure 1(**G**)).

The whole pinna is now more mobile and the new lateral conchal wall can be setback to lie at the edge of the