

A New and Practical Instrument for Antihelix Scoring: Gillies Skin Hook

Antiheliks Skorlaması İçin Yeni ve Pratik Bir Enstrüman: Gillies Skin Hook

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Dear Editor,

Prominent ears are relatively common, with an incidence in whites of about five percent¹. It is inherited as an autosomal dominant trait and is commonly caused by a combination of two defects: (1) underdevelopment of antihelical folding and (2) overdevelopment of the conchal wall. Many techniques have been described to correct the antihelical fold. In 1958 after Gibson and Davis² showed the ability of injured cartilage to bend away from the side of injury, Stenstrom described scoring of the anterior auricular cartilage to create an antihelical fold, Chongchet's technique used sharp scoring of the lateral scaphal cartilage to form an antihelix with a scalpel.²⁻⁴ Stenstrom, in contrast, used a rasp to blindly score the antihelix.³ Many different instruments have been used for scoring, including scalpels, rasps, abraders, diamond burr drills, Adson-Brown forceps, hypodermic needles and bipolar cautery.⁵ We present in this paper, a new instrument which can be used for scoring, a fine skin hook.

The patient was presented with prominent ear on the right side unilaterally. Operation was planned beyond written informed consent were taken from patient. He was 23 years old. On the physical examination, we observed underdeveloped antihelical fold and prominent concha. The helix to mastoid distance was measured 25 mm in the upper third, 30 mm in the middle third at its widest point and 22 mm in the lower third. The concha was deep and conchamastoid angle was increased and measuring 80°. The concha scaphal angle was 125°. We used Furnas conchal-mastoid sutures and Mustardé scapha-conchal sutures in the operation. The cartilage was firm and to break strength for reshaping and forming the anti-helical fold, we scored antihelix with Gillies skin hook (Figure 1).

In this method, after doing a skin incision at the postauricular sulcus, subperichondrial dissection is done. With the posterior approach, a 4 mm incision is done to the cartilage at the junction of antihelix and antitragus. Then a 4 mm wide blunt ended periost

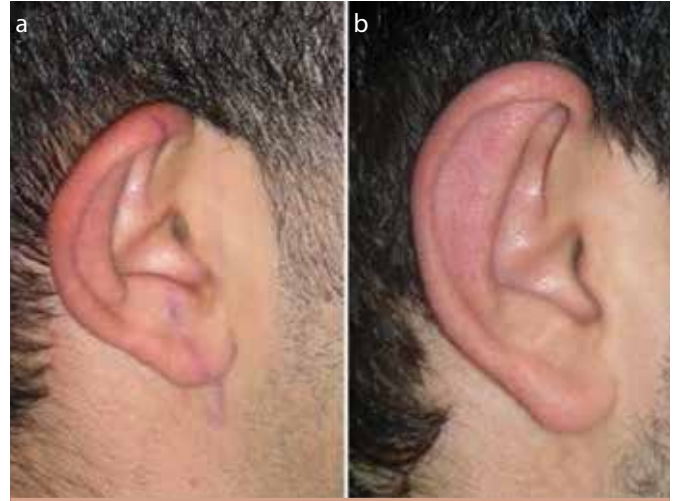


Figure 1. a, b. (a) Preoperativelateralview of right prominent ear presented in thecase. (b) Postoperative lateral view, two months after the operation



Figure 2. Skin hook is in then arrow tunnel under the perichondrium above the anti helical fold

elevator is passed through this incision and a narrow tunnel between the anterior surface of the cartilage and the perichondrium is formed through the antihelical fold. A 180 mm 7" Gillies skin hook is passed through this tunnel in a lateral manner and after turning the fine tip to the cartilage, scoring is done from superior to inferior direction (Figure 2,3). While doing this procedure the cartilage is inspected and palpated from the posterior side to avoid unwanted full thickness scoring. After breaking the strength of the cartilage with scoring, we reshaped and formed the antihelical fold with Mustardé scapha-conchal sutures.



Figure 3. Passage of skin hook through the incision at the junction of the anti helix and antitragus in a lateral manner

Underdeveloped antihelical fold is one of the anatomic causes of the prominent ears. To correct this anatomic abnormality, one of the techniques have been described is scoring the cartilage to permanently alter its shape and form.⁵ Today in clinical practice scalpel blade is the usual preferred method. In the otoplasty procedures it is not easy to reach the anterior surface of the antihelical fold cartilage with a scalpel in a controlled manner, so it may cause unwanted fractures and sharply contouring of the fold. The Adson-Brown forceps which is also commonly used for scoring, because of its wide handle makes the technique difficult. Besides requirement of a wider tunnel, the fine tip of the forceps could not reach the superior portion of the antihelical fold. Although special instruments for antihelical scoring are available, these instruments are not within easy reach for the surgeon, whereas skin hooks are almost always exist in all surgical instrument sets. Therefore skin hooks may eliminate the need for these special instruments with the ease of availability. With fine skin hook the scoring can be accomplished on either the anterior or the posterior surface of the cartilage. As mentioned above we preferred using a 180 mm 7" Gillies hook, because while a smaller hook caused an insufficient scoring, a bigger one induced full thickness scoring and cartilage deficiency. In general, full-thickness penetration of the cartilage usually results with in a sharper antihelical fold, which is undesirable. With the use of Gillies skin hook from the posterior aspect, weakening of the cartilage, parallel to the long axis of the ear can be achieved by a controlled manner. In conclusion, we want to mention that Gillies skin hook is an instrument within easy reach for the surgeon and antihelix scoring with skin hook is a practical and easy technique that should be kept in mind.

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