Piercing of the earlobes has been performed in both sexes for thousands of years for social, religious, and cosmetic purposes in the most primitive as well as the most affluent cultures. Ancient Indian writings describe the need for repair of the cleft earlobe. During the past decade, there has been a resurgence of body piercing by both men and women. Body art in the form of multiple piercing is a hallmark of the so-called generation X.

Acquired clefts or splitting of the earlobes commonly occur from prolonged traction of heavy earrings. In rare cases, it can also occur from pressure necrosis from the clip-on earring,2 as well as from intentional and unintentional trauma.1 Children pulling on an adult’s earring, inadvertent snagging of an earring with a hairbrush, and altercations are common causes of traumatic earlobe clefts. These clefts are most commonly incomplete (Fig 1) and bilateral; however, complete clefts are also common (Fig 2).

Ear clefts usually involve a linear tear in the case of protracted traction and may be angular in the direction of traumatic vectors in traumatically induced clefts. In either case, the fleshy portion of the earlobe is torn and the cartilaginous portion of the auricle is rarely involved. Bleeding is minimal, and the defect edges heal with little scar formation2 except when keloids occur. A congenital anomaly, Coloboma lobuli, a clefting of the earlobe at birth, is treated in the same manner.

Most women desire expedient repair so they can once again wear earrings. Because they are reluctant to go for an extended period without an earring, procedures that favor immediate or quick repiercing are perceived as desirable by the patient.

The literature describes repair techniques that do not provide for repiercing as well as procedures that leave an opening for the reinsertion of an earring. Boo-Chai1 in 1961 described excision of the cleft and placement of a portion of a sterile toothpick to preserve an opening for an earring post repair. Elshay2 in 1986 described a method of leaving a 2-0 suture in the repair to preserve the earring hole.

Various configurations of surgical flaps have been described in an effort to improve cosmesis, decrease scar formation, and preserve or create an earring hole. In 1975, Hamilton and La Rossa3 presented a Z-plasty technique and a 1/2 Z-plasty was described by Abenavoli5 in 1996. Zoltie6 described a lap joint technique with overlapping flaps in 1987, and Fearon and Cuadros7 presented an L-plasty method of lobe repair in 1990. In a 1996 communication, Hersch8 described a method of repair for incomplete clefts using a biopsy punch.

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FIGURE 1. Heavy earrings causing traction and clefting of the earlobe.
This article describes a technique for the immediate repair and of the cleft earlobe replacement of the hole using gold post earrings.

**Technique**

In the evaluation of the cleft earlobe repair, it is important to first determine the length of the cleft. Incomplete clefs can be repaired without sacrificing the inferior lobe margin. However, total excision through the inferior portion of the lobe is recommended if the defect extends to the lower third of the earlobe (Fig 2). This decreases or prevents bunching of the repair, insuring a more cosmetic closure.

The procedure is performed under local anesthesia, unless sedation is requested by the patient. Each ear typically requires 10 to 20 minutes of operating time. After anesthetic infiltration, the inferior lobe margins are stretched with a fine skin hook to show the actual anatomic extent of the cleft and the interposed scar tissue (Fig 4). The earlobe is a fleshy structure and sometimes difficult to position or precisely incise. Therefore, holding a sterile tongue blade behind the earlobe helps provide a solid cutting surface as well as protects the operator’s fingers while the scar tissue is excised.

In the case of incomplete clefs, the epithelial margins are excised and reapproximated with 6–0 nylon or 6–0 gut suture. With incomplete clefs, attention must be paid to the symmetry of the ellipse of tissue excised; otherwise, uneven edges can result, producing a bunching effect. By converting incomplete clefs that extend past the lower third of the earlobe to complete clefs there is more control of the skin margins and closure.

Closing the complete cleft is done by stretching the inferior portions of the lobe with a skin hook to maintain tension and control. The epithelial and scar margins are then excised with a scalpel, or simply cut in an inverted "V" with sharp iris scissors (Fig 5). When
FIGURE 4. Skin hook traction and tongue blade backing to facilitate incision and suturing of the fleshy edges.

using scissors, the wound edges must be linear and not beveled. Dull scissors will create a crush injury and complicate the cosmetics and healing of the repair. When removing tissue, it is important to leave as much

FIGURE 5. Area of scar excision for repair of complete earlobe cleft.

FIGURE 6. Placement of a single subcutaneous suture is used to align the inferior lobe border.

FIGURE 7. Earlobe repaired with 6-0 nylon sutures.

FIGURE 8. SURGICAL REPAIR OF THE CLEFT EARLOBE

FIGURE 9. SURGICAL REPAIR OF THE CLEFT EARLOBE
tissue intact as possible or the repaired lobe will be smaller than the other ear.

Once the wound edges are prepared, they are re-aligned using skin hooks. Subcutaneous sutures are generally not necessary; however, placing a single subcutaneous suture to approximate the lobe margins is helpful in the case of large repairs (Fig 6). This can reduce malalignment and notching of the inferior lobe border, a common complication. To further decrease inferior lobe notching, the first suture is placed at the inferior border of the earlobe to align the margins. Once the margins are aligned, the remainder of the lateral aspect of the incision is closed with interrupted 6-0 nylon or gut sutures (Fig 7). The medial incision is then closed with interrupted 6-0 sutures.

Should the patient desire immediate piercing, a 14-karat gold commercial piercing post earring is inserted through the incision at the appropriate level (Fig 8). A small ball-type stud earring works well. The post maintains the earring opening, and the ball is small enough to permit cleansing and not interfere with healing. Jeweled or porous earrings are less desirable because of their affinity to trap debris and contribute to infection. It is advised not to place the earring back on the stud too tightly, which may induce a pressure necrosis. If the position of the earring will not match up symmetrically with the opposite ear, the lobe is pierced in a new area with an 18-gauge needle, or piercing is delayed.

Postoperatively, the patient is instructed not to wet the repair for 72 hours. The suture lines are cleansed twice a day with peroxide and coated with a triple antibiotic ointment. If earrings were placed at the time of the repair, they are rotated twice a day to encourage fistulization. Nylon sutures are removed 7 days later. Earrings placed during surgery are removed at 1 month for cleaning. Complete fistulization may take 3 to 6 months, and earrings should only be removed for short intervals to avoid closure of the tract. The postoperative result is predictable, and satisfactory cosmetics are usually achieved if attention is paid to correct alignment of the incised lobe margins (Fig 9).
Complications

Inferior lobe notching is a complication caused by improper approximation of the skin edges or scar contracture. Observance of the aforementioned intraoperative principles should minimize notching. In cases of severe notching, a secondary procedure may be necessary.

Infection of the earlobe is rare, and antibiotics are not used routinely. A single case of postoperative wound dehiscence has been experienced by the author and was treated by delayed closure. Keloid formation may be a significant complication, and all patients should be questioned about previous keloids. If keloids are encountered, they are first treated by steroid injection, which may reduce their size.

Discussion

Although numerous “plasty” methods have been described to repair complete and incomplete acquired clefts, it is the author’s experience that complicated flaps are difficult to handle on the fleshy and mobile tissues of the earlobe. Simple scar excision with reapproximation of skin edges has been described in the literature and is adequate for excellent postoperative results. Immediate placement of earrings at the time of repair may be requested by patients and is a viable alternative.

References