

CASE REPORT

**Attempted self-amputation of excess tissue following traumatic split of a dilated earlobe**

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**Abstract**

Earlobe dilation with gauge earrings has become increasingly common. Once an earlobe piercing has healed the earlobe is stretched to the desired appearance using gauges of increasing diameter. This stretching results in hanging of inferior lobe tissue that is susceptible to trauma. The purpose of this report is to present a unique case of attempted amputation of excess earlobe tissue following a traumatic split of the earlobe in a patient with gauge earrings and to briefly review common earlobe repair techniques.

**Keywords:** cleft earlobe; earrings; gauge earrings; trauma

**Introduction**

Earlobe piercing is a common practice that dates back thousands of years. The complications of earlobe piercings are well documented in the literature and include infection, contact dermatitis, keloid formation, and traumatic splitting of the earlobe [1]. Traumatic splitting of the earlobe can be caused by frequent wear of heavy jewelry or a sudden pull on an earring. The deformity is linear in shape and may be classified as a complete or incomplete cleft of the earlobe [2].

Increasingly common is the practice of earlobe dilation following earlobe piercing. Once the pierced site has healed, a series of gauges of increasing diameter are inserted over time to stretch the tissue to the desired appearance. As a result of this stretching, a circular defect is created in the earlobe and when the gauges are removed, excess stretched tissue hangs inferiorly. This excess tissue is susceptible to traumatic injury. Repair of the cleft earlobe is a commonly performed procedure and many different techniques for repair have been described in the literature. The present report describes a patient that sustained a traumatic pull injury to the hanging tissue created by years of dilation of the earlobe using gauges. In attempt to sever the torn earlobe tissue, the patient wrapped a string around the base of the hanging skin. Extensive literature review revealed only one similar case involving a male inmate that attempted to remove a keloid of the earlobe by tying string around the tissue mass [3].

The purpose of this report is to present a unique case of attempted amputation of excess earlobe tissue following a traumatic split of the earlobe in a patient with gauge earrings and to briefly review common earlobe repair techniques.

**Case report**

A 46-year-old female presented to the emergency department with a chief complaint of left earlobe swelling. Her past medical history was significant for hypertension which was controlled with lisinopril. Past surgical history was non-contributory, and she denied use of alcohol, tobacco, and illicit drugs. The patient had many tattoos, and she had multiple piercings of both the right and left ears. As well, she had a history of large gauge earrings of both the right and left earlobes.

Two weeks prior to presentation the patient had removed her gauge earrings before bedtime. When she awoke the next morning, she had torn the left inferior earlobe skin that had been created from years of stretching by a gauge earring. This resulted in a cleft defect, with a large piece of excess tissue hanging from the left medial earlobe. In an attempt to remove the excess skin, the patient tightly wrapped a string



**Figure 1:** Mass of left medial earlobe on presentation. Circle shows the string the patient wrapped around the defect in attempt to sever the tissue

around the base of the excess tissue. In the following days, the patient noticed that the excess skin began to swell to a large size.

On examination the patient had a large firm mass hanging from the left medial earlobe. This mass was painless and firm to the touch with significant necrosis noted. A thin string was seen at the base of the mass and upon manipulation of the area slight oozing of blood was seen (Figures 1 and 2).

After discussion with the patient, the decision was made to excise the mass and close the earlobe cleft. The left earlobe was thoroughly cleaned and local anesthesia with 2% lidocaine with 1:100,000 epinephrine was injected. The mass was excised at the base with a 15 blade, and all necrotic tissue was removed. The remaining cleft defect was de-epithelialized and closed in a straight-line fashion using interrupted 6-0 fast gut sutures (Figure 3). Antibacterial ointment was applied to the wound, and due to the necrotic nature of the mass a course of antibiotics was prescribed. No complications were experienced post-repair. At three months follow up, adequate healing of the earlobe was achieved without a significant defect and minimal scarring (Figure 4).



Figure 2: Posterior view of left earlobe mass

## Discussion

Many different techniques for the repair of the cleft earlobe have been described in the literature. The technique for repair varies depending on the size and classification of the cleft as either incomplete or complete. In the present case, the trauma sustained to the inferior earlobe tissue resulted in a complete cleft. In contrast to more circular defects commonly caused by gauge earrings with the inferior lobe skin maintained, this particular case resulted in a linear defect after the excision of the mass and debridement of necrotic tissue and was amenable to simple linear repair.

The simple linear repair of the cleft earlobe was described by McClaren in 1954 [2]. This technique involves de-epithelialization of the cleft and closure of the wound margins in a linear fashion. A variation of this technique was introduced by Tan, in which a punch biopsy is used to de-epithelialize small defects with closure of the wound margins in a linear fashion [4]. For patients that prefer to maintain the earring hole, Boo-Chai advocated closure of the defect around a thin matchstick used as a spacer [5]. Aspesos and Kane proposed another variation of straight-line closure with excision of the complete earlobe defect using an inverted V incision with undermining of the epithelial margins [6]. Further modifications by Casson incorporated a Z-plasty at the inferior rim of the earlobe [7].

When evaluating gauge earring defects that are circular with the integrity of the inferior earlobe skin maintained, repair often requires the recruitment of local soft tissue to adequately fill the defect. Techniques to maintain the volume of the earlobe may involve folding of the excess earlobe skin. Bastazini proposed a repair technique that rotates the inferior portion of the earlobe skin superiorly. The inferior hanging lobe skin is cut, trimmed, and folded upon itself to restore volume of the lobule with de-epithelialization to allow for adequate healing [8]. Snell proposed a similar technique that involves rolling the inferior portion of ear lobe skin. The inferior hanging lobe skin is cut,



Figure 3: Immediate post-repair



Figure 4: Three months post-repair

both inner and outer surfaces are de-epithelialized, and the skin is rolled upon itself [9]. Alternatively, Williams described a technique using an incision that travels superior to the dilated area of the lobe in an inverted V shape. This method removes the inferior hanging lobe skin with approximation of the wound margins [10]. While these techniques are more challenging, they are often necessary depending on the defect encountered.

The present report describes a unique case of attempted amputation of excess earlobe tissue resulting from trauma to a dilated earlobe. In this case, the priorities were the removal of necrotic tissue

to prevent compromise of the surrounding earlobe and adequate repair to provide acceptable aesthetics. It is important to educate patients with gauge earrings to seek proper medical treatment should they experience trauma to the earlobe, and to avoid at home treatments that may create a more difficult repair.

**Conflict of interest:** The authors declare that they have no conflict of interest.

**Ethics approval:** Authorization and consent from the patient included in this report was obtained.

**Authors' contributions:** All listed authors (TWN, YH, SRS, TS) contributed to the conception and design of this report and all authors were involved in the drafting of the manuscript. Final approval of the manuscript was given by the senior author (TS).

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