

REVIEW ARTICLE

Oral Piercings- Pain or Pleasure?Puneet Sharma,¹ Sanjeev Kumar Salaria,² Ravi Kiran N,³ Shilpa Kamra,¹ Deepak Kumar Bansal⁴**ABSTRACT**

Although oral piercing has been an uncommon practice in the Western world, the insertion of metal objects into intra-oral and peri-oral pierced sites is growing in popularity as adolescents are characterized by a compulsive tendency to distinguish themselves from the rest which includes differences in clothes, hairstyle, or “decorative” details. Dental health-care professionals need to be aware of the procedures, their risks and the social and psychological reasons that lead people to engage in these practices. The present article addresses oral mutilation practices, specifically from the oral health perspective including piercing procedure. Special attention is given to complications and dental implications associated with such an unusual practice and management for the same.

Keywords: Oral piercing, Oral jewelry, Complications

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INTRODUCTION

Oral and perioral piercings have been around from time immorial. It involves the insertion of jewelry into various sites like tongue, lip, cheek, frenum, uvula, or a combination of these sites for religious, tribal, cultural, or identity reasons.¹

The earliest known representation of this piercing was dated back to around 1500 BC in Egypt in the figure of a dog created, when it was considered a symbol of royalty. Piercing was a symbol of spirituality, virility and courage for ancient Mayans. Eskimos used to insert a “labret” into the lower lip as a symbol of passage to adulthood in boys and as an act of purification in girls. The piercing of lips, cheek or tongue was also a traditional practice in various cultural groups of Hindus, Chinese and American India. A vow of silence was accompanied by tongue piercing in Southern India.

A Piercing where both ends of the piercing apparatus are within the oral cavity (like in tongue piercing) is called intraoral piercing whereas a piercing where one end of the piercing apparatus is located within the oral cavity, and the other end penetrates the skin surface (lip stud or ring) is called as perioral piercing.²

Many celebrities, both Indian and international, have joined the bandwagon and have gotten their body or oral structures pierced. This trend also makes young boys and girls of impressionable age want to follow them and many of them do not realize the safety concerns of such a piercing jobs, which makes their mouth, jaws, gums, and teeth prone for infection. The various types of piercing jewelry which are commonly used are labrets, barbells, captive rings, and magnetic studs.³

Types of Oral Jewelry Designs

The most commonly used intraoral jewelry is of two types, i.e. piercing and non-piercing.

Piercing type of oral jewelry

1. Barbell: A straight or curved bar with balls at each end [Fig 1]²⁰
2. Labret: A bar with ball/disc/cone point at one end and flat closing disc at the other [Fig 1].²⁰
3. Barbell and labrets may utilize either internally or externally threaded heads.
4. Captive bead ring: Unclosed ring with a ball either at one or both the ends [Fig 2]²⁰

The piercing procedure for these jewelries is invasive and painful, and if not done with precision then might be associated with complications.

Non-piercing type of oral jewelries

1. Magnetic jewelry: Two components of the stud are held together by magnet.
2. Tooth jewelry: Tooth jewelry is held over the tooth with the help of light cure composites (etchant and bonding agent). It mainly includes gems, twinkles that are made up of pure gold or other precious stones like diamond, rubies, etc.
3. The procedure to utilize these jewelries is usually painless and not associated with any risk of infection (but maintenance is highly required after insertion). They are easily removable and add more attractiveness and sparkle to the smile but their stability is questionable. The cost of jewelry is variable depending on the style and material used.

Oral and Para – Oral Sites of Piercing

Tongue

The first case reported in the literature involving the use of tongue piercing was described by Scully and Chen in 1992. The traditional placement for a tongue piercing is along the midline of the tongue, in the centre of the mouth. It is often approximately 1 inch (2.5 cm) or so back from the tip of the tongue. A tongue frenulum piercing is a piercing through the frenulum underneath the tongue, and commonly called the tongue web piercing.⁴ The term

"Venom Bites" is given to two tongue piercings placed side by side on the tongue and the term "angel bite" is associated to two piercings in the tongue with one placed right in front of another.

A vertical piercing through the midline of the tongue, anterior to the lingual frenum, is the commonest of all oral piercing sites [Fig 3].²⁰ The tongue may also be pierced multiple times, off-center or horizontally [Fig 4].²⁰ Acrylic barbells fitted to tongue bar are used these days for same.

Lip

The "Monroe piercing" is the second most frequently pierced oral site generally in the midline of lip [Fig 5]²⁰, but may also be pierced off-center [Fig 6]²⁰. Captive-bead rings are the preferred over labrets as they allow for less post-operative swelling and are easier to clean. Usually the lower lip is pierced through the mucosal tissue just beneath the vermilion border, and the length of the selected jewelry depends on the thickness of the tissue being pierced.⁵

Cheek piercing

Cheek piercing is usually located where a dimple would be seen (other placement areas are also optional) and uses a labret stud piercing that goes through the cheek. [Fig 7].^{4,6}

Uvula piercing

Uvula piercing is still quite rare, and most wearers use a captive bead piercing [Fig 8]. Stimulation of the uvula accentuates the gag reflex, which is a very important factor to be considered during piercing, and should be avoided at all costs. If the person being pierced gags violently, it is possible to drop the needle or the jewelry, or pierce the side of the throat. In adverse cases, piercing might lead to bisection of the uvula.^{4,6,7}

Frenum

The frena often pierced are mandibular lingual frenum and maxillary labial frenum [Fig 9]²⁰. Piercing is done through beneath the lining mucosa of the upper lip between the central

incisors for labial frenum and through mucosal fold present beneath the tongue for the lingual frenum. These piercings are relatively simple and usually heal quickly. Aftercare for lingual frenum piercings is difficult as the wound will come in contact with anything that enters the mouth. Both ring and barbell style jewelry are used in these piercings.^{5,8}

The Piercing Procedure

Almost all oral piercings are performed as a straight piercing, i.e. they do not need the boring needle to be bent unlike other body piercing sites. The majority of sites are chosen based on the statistical absence of major blood vessels and/or nerves. Once a site is chosen, it is marked and the tissue is grasped with sponge forceps. The initial piercing of tissue is commonly performed by using a 14-gauge boring needle, following which an identical-sized piece of jewelry is used to push the needle so that only the jewelry remains inside and the needle comes out from the tissue [Fig 10]²⁰. Anesthesia is not often used for the procedure. The healing period may vary from 3 to 12 weeks, depending on the vascularity, anatomy of the site and other factors that affect the healing process.⁹



Figure1: Patient with 2 types of piercing labret and barbell.

Complications

Complications resulting from an oral piercing can occur not only during the initial procedure, but at anytime thereafter. It is important for oral healthcare professionals to be aware of these sequelae in order to inform both potential and current pierces and so that complications can be recognized during the oral examination. These effects can happen during the piercing, shortly after, or long after the piercing procedure.¹⁰⁻¹⁵



Figure-2: Captive bead rings



Figure-3,4: Single and multiple tongue piercing



Figure-5,6: Monroe piercing, Labret Stud in lower lip



Figure-7: Cheek piercing



Figure- 8,9: Uvula Piercing, Frenal Piercing



Figure-10: Tongue piercing procedure

Complications During Piercing

Hemorrhage

The highly vascularized tongue (supplied by the deep lingual artery and vein) may bleed during the procedure. This bleeding should soon be controlled. Extreme hemorrhaging while procedure should receive immediate attention.

Nerve Damage

Intraoral sites being highly innervated by the trigeminal (mandibular division), facial, hypoglossal and glosso-pharyngeal nerves, possibility to puncture a nerve during the procedure is very high. Nerve damage is seen more common with the dorsolateral than the dorsoventral tongue piercing. If nerve damage occurs, there can be sensory (taste) or motor loss effects depending on the nerves affected.

HIV, Hepatitis, Tetanus, and Other Communicable Diseases

An improper sterilization/disinfection of equipment or supplies can lead to above conditions. Universal precautions must be utilized as blood and bodily fluids are involved in piercings.

Complications Immediately Following Piercing

Local Inflammation of the Tongue

A swelling in tongue can affect speech, mastication, and deglutition. The submental and /or submandibular lymph nodes may become enlarged and tender and these inflammatory effects can last up to three to five weeks. The mouth may be treated with a sea salt (saline) soak or saline rinses to reduce inflammation.

Localized Infection

Localized infection can largely be prevented with meticulous aftercare. For treatment, chlorhexidine rinses or systemic antibiotics are used and local debridement can hasten healing.

Any infection which does not respond in 1-2 days should receive professional attention.

Trauma to Lingual Gingiva

Erythema and edema of lingual gingiva is caused by the tendency to 'play' with the tongue ball. It is resulted from placement of the dorsal ball against the maxillary lingual tissue or the ventral ball against the mandibular lingual tissues.

Bacteremia

A systemic infection can result from bacteria introduced during piercing from connective tissue or can spread from a localized infection that can occur anytime. A healthcare provider should be consulted if symptoms of infection occur such as fever, chills, shaking, or a red streaked appearance near or on the piercing site.

Allergic reaction to metal

Silver coatings and other finishing on poor-quality jewelry may wear off, resulting in the exposure of the underlying material, which can create an allergic sensitivity and delay wound healing. It is more commonly seen in the younger age group due to their limited financial resources.¹⁶ To avoid such complications, jewelry made of biological inert material such as surgical stainless steel, niobium, 14K or 18K gold or titanium should be used.

Ludwig's Angina

This condition involves an inflammation of connective tissue and spreads rapidly to involve submandibular, submental, and sublingual spaces. Signs of involvement are painful tongue swelling, difficulty swallowing and speaking, and compromised airway. This is a serious development that demands immediate professional intervention as compromised airway could prove fatal.

Long-Term Complications

Tissue Hyperplasia: Tissue overgrowth can occur at the piercing site which may/maynot be

accompanied by pain and edema. The treatment is excision of the tissue with copious irrigation and then followed with re-insertion of a sterile barbell. The reoccurrence of hyperplastic tissues are seen after excision.

Dehiscence: The ball of the labrette or lip barbell rubbing continuously against the mandibular anterior facial gingiva can create a dehiscence over time. A periodontal consultation is advisable in this condition.

Cracked/Fractured Teeth: Damage (cracking /fracture) to teeth can result from parafunctional oral habits related to biting the barbell, careless jewelry insertion, or during eating. Damage to teeth usually occurs after swelling has diminished and the barbell fits loosely within the tongue. Maxillary or mandibular teeth can sustain chipping from the ventral or the dorsal ball on the tongue and sensitivity to cold and sweets and pain upon biting pressure is seen. The dental clinician who has administered a mandibular block injection should be aware that while the patient is still anesthetized, jewelry in the numbed tongue can readily result in cracking of teeth.

Gingival Recession/ Tooth Abrasion: The tendency to repeatedly press the tongue barbell against the mandibular lingual gingiva can lead to recession of soft tissues. Labrette or lip piercings can lead to recession of the mandibular facial tissue. A dentist can implement cosmetic or functional correction for its treatment.

Malposition of teeth: Changes to dental structure can be produced by continuous pressure from the piercing jewelry and parafunctional habits can lead to malposition of teeth.^{6,17}

Aspiration or Ingestion: A metal bar connects two balls of the barbell. If the ball becomes loosened, there is a potential for swallowing or aspirating it. Aspiration or inhalation of jewelry parts could occur at any time during or after piercing.

Postoperative Instructions

Proper postoperative instructions are must including information on the care of the pierced site; that means frequently using a mouth rinse and avoiding alcohol, spicy foods and smoking. Don't speak or move the jewelry more than necessary. Drinking cold beverages and sucking on crushed ice is recommended to reduce the swelling. Anti-inflammatory drugs as ibuprofen can greatly reduce the swelling associated with a tongue piercing.

Cleaning instructions: Regular rinsing after eating or drinking with a de-ionized saline fluid is required. Many professionals recommend rinsing with 50/50 mixture of mouthwash and distilled water after eating, drinking, and smoking. It is advised to use soft bristled tooth brush to keep the jewelry clean.

Management of Complications

If there are complications, the jewelry may need to be removed, as also it may for radiological purposes. If the doctor or dentist is familiar with the opening mechanism, removal is not usually difficult. However, uninformed attempts at removal may cause trauma and distress. In a survey of accident and emergency doctors, less than one quarter were able accurately to describe the opening mechanisms of the commonly used types of jewelry. The jewelry can be removed for a very short period (up to 2 hours) but, if left out longer, the opening may spontaneously occlude. The site should be irrigated with 0.2% aqueous chlorhexidine and, if there is frank infection, antibiotics may be indicated.

Role of Oral Piercing Practitioners

The practitioner should obtain informed consent regarding the pros and cons of oral piercing by the patient. They should be aware of the adjacent vital anatomical structures. Local anesthesia should be used whenever required, and should follow strict infection control regime during the procedure. Pre- and post-antimicrobial therapy should be considered as required.

Role of the Oral Health Providers

Most of the piercing professionals lack training of the procedure and sterilization protocols to be followed. As there is a lack of strict rules and regulations regarding the profession, the oral health care providers should be aware of the relevant complication and their management.¹⁸

They can provide education and motivation regarding harmless piercings, oral hygiene maintenance and possible complications associated with it. Chipping of tooth can be prevented by use of barbells with an acrylic head. If a longer barbell is noticed in a patient with tongue pierce after complete healing, then they should be motivated to replace it with a shorter one. Any signs of infection should be dealt with as quickly as possible and a recall visit appointment card should be maintained.¹⁹

Management of Dental Patient

Usually a patient presenting with an oral piercing will not require any special considerations by the oral healthcare professional during treatment. However, when jewelry removal is indicated a well-prepared dental team should have the necessary supplies available in the office. This is important because when oral piercing jewelry is removed, closure may begin to occur in a short time. A well-prepared office will have temporary nonmetal replacements for oral jewelry that is removed for treatment. Hole closure is highly variable among individuals and in case the patient is not prepared, the replacement of jewelry is recommended. One simple and inexpensive method used is nylon line as used in lawn care equipment.

CONCLUSION

Dental professionals need to be aware of the procedures and risks involved with oral piercings and of the social and psychological reasons that lead adolescents to engage in this practice, regardless of the risks. Adolescents with oral/perioral piercing should be educated about regular dental visits for an exhaustive oral examination to ensure early detection and

treatment of oral complications associated with this practice.

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