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Oral and Perioral Piercing and Its Implications on Hard and Soft Tissues

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Abstract

Oral and perioral piercing is a ritual that involves the insertion of jewellery into the tongue, lip, cheek, frenum, uvula or other parts of the mouth. This habit has been practiced for religious, tribal, cultural, sexual or identity reasons. These factitious injuries often injure the oral soft tissues and hard tissues. They pose diagnostic and management problems for the dentist.

Keywords: *Oral and perioral, Tattoos, Trauma.*

Introduction

The piercing of lips (Fig 1), tongue (Fig 2), cheek (Fig 3), uvula (Fig 4), is a traditional practice in Hindu, Chinese, American, Indian cultures. In Southern India, a vow of silence was accompanied by tongue piercing. It is seen that self-inflicted oral injuries are not only limited to the soft tissues but may result in destruction of bone and tooth structure as well. Ancient Mayans considered piercing as a symbol of spirituality, virility and courage. Eskimos inserted a "labret" into the lower lip (Fig 1), as a symbol of passage to adulthood in boys and as an act of purification in girls. In many developed countries, piercing became fashionable with the punk movement and then as part of a wider "body art", i.e., the voluntary modification of physical appearance by tattoos, branding, scars or piercing.[1-2]

Materials Used

Materials commonly used for piercing are hypoallergenic and non-toxic materials e.g., 14 or 18K gold, titanium, stainless steel, niobium, tygon, acrylic, stone, wood, bone, or ivory. There are four types of piercing jewellery which are applied in the oral/perioral area. One type is the labret, a bar with ball, disc or point at one end and flat closing disc at the other. Another type is the barbell, a straight or curved bar with balls at each end. A third type is an unclosed ring with a ball at one or both ends.[2]

Complications of Piercing

1. The tongue is highly vascularized and innervated. Any oral piercing may cause major hemorrhage or paresthesia.[2]

2. Transmission of disease, such as hepatitis B and C, HIV, herpes simplex virus, Epstein-Barr virus, Candida albicans, tetanus, syphilis or tuberculosis may occur following the use of unsterile materials.[2-5]

3. Most frequent complication of piercing is painful ulceration, followed by inflammation. The onset of local inflammation occurs at 6-8 h after the piercing, reaching a peak on day 3 or 4 Tongue piercings (Fig 2) appear especially prone to infection, by Staphylococcus aureus, Streptococcus, Pseudomonas aeruginosa, Erysipelas and β-haemolytic Streptococcus, among other microorganisms. The proximity of lymph-node chains to this initially local focus of infection may favour its spread, leading to airway obstruction or even damage to vital organs, e.g., endocarditis. The spread of these microorganisms to the bloodstream can cause bacteraemia. In isolated cases, sepsis can lead to septic shock, a life-threatening disease. Ludwig's angina can also be induced by the presence of anaerobic microorganisms related to an oral piercing.[2-3-5]

4. Anaphylactic reactions can be produced by some of the materials inserted, e.g. Nickel, and the metal that causes most contact allergies. The most commonly

reported allergic reaction of piercing is contact dermatitis produced by nickel, chromium or nickel-cobalt. .[2, 3]

5. A greater amount of plaque can be deposited at the site of oral/perioral piercings due to the difficulty of maintaining hygiene and the retention of food which creates an ideal environment for a large scale accumulation of plaque and calculus .These accumulations can produce halitosis and possible infection. Thus, oral piercings have been associated with gingivitis, which requires the presence of bacteria in plaque for its onset, although factors related to microorganisms and host predisposition also affect this pathogenesis[2-3]. (Fig 5)

6. Piercings of the oral/perioral cavity can be the reason for various lesions, including oedema and reactive lesions, such as mucoceles, inflammatory fibrous hyperplasia or mucous retention cysts, Hypertrophic or cheloid scarring may also occur .[2,3]

7. Traumatic ulcer can result due to friction between oral / perioral jewellery and soft tissue and with the passage of time, tongue piercings can produce traumatic fibroma, a localized tumor that has the same colour as that of the mucosa with a soft consistency. Fibrous repair with re-epithelization of the perforated area can also happen.[4-6]

8. In oral / perioral piercings, constant trauma from the jewellery may produce localized horizontal bone loss.[4]

9. Oral and perioral piercings produce radiopaque areas which will affect the quality of x-rays.[6]

10. The presence of piercing jewellery in the mouth, especially on the tongue, commonly hampers chewing, phonation and speaking and distorts the pronunciation of certain sounds, e.g., “s”, “sh”, “th”, “ph”, “t” or “v”.[2-6]

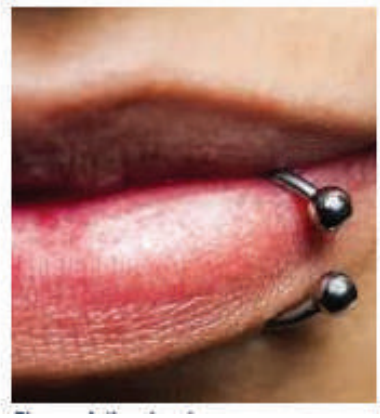

Figure 1:lip piercing

Figure 2:tongue piercing

Figure 3: cheek piercing

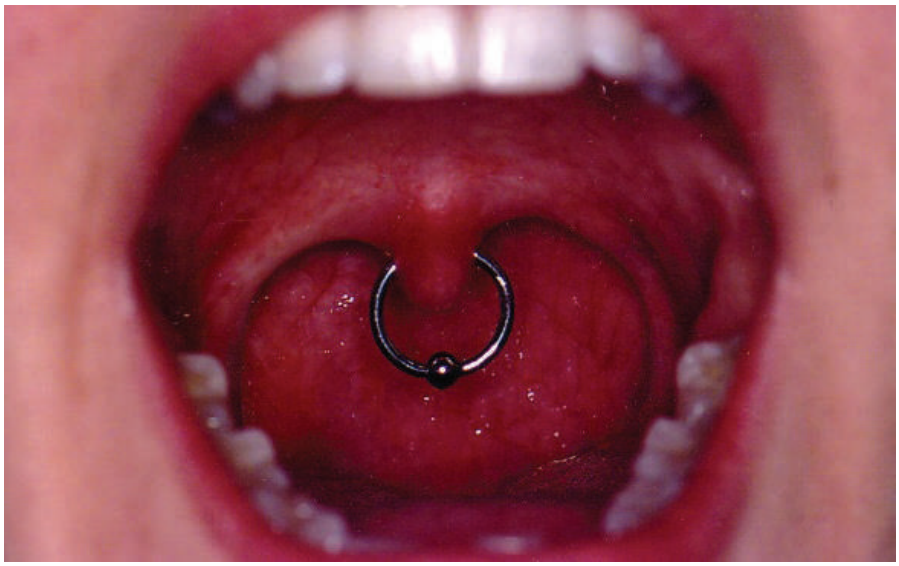

Figure 4: uvula piercing

figure 5: piercing with plaque

Conclusion

Since oral / perioral piercing damage the oral soft and hard tissues there is a need for greater awareness, education of the public by the dentists for possible adverse effects and need for a follow-up of patients with oral and perioral piercing. Individuals with oral/perioral piercing should visit their dentist regularly to ensure early detection of the various adverse effects associated with this practice.

Ethical Clearance – Not required since it is a review article

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Conflict of Interest – Nil

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