Tongue piercing: part I

Introduction

One earring is not sufficient anymore. The nose, navel (Fig. 1), tongue and even genitals have to be pierced by surgical steel to make an impression. The motivation for such a 'decoration' is different – like being hip or alternative. With the growing popularity of oral piercing, dental hygienists should be aware of possible problems associated with such procedures.

Case history

The patient, a 28-year-old female, came to the dental hygienist for a consultation regarding tongue piercing. The patient had obtained relevant information from the piercer who was to perform the procedure; she had also consulted the Internet home pages for additional insight into the subject. However, she wanted a professional opinion as the piercing would be placed in the mouth.

After listening to the patient and hearing the details on how the piercing procedure would be executed, the dental hygienist advised against the tongue piercing, explaining the reason why. Possible complications were also discussed.

Medical history

The medical history of the patient does not show any complications.

Dental history

The patient visits the dental hygienist regularly. Her last visit was 6 months ago. Her dental hygiene is good. She brushes with a fluoride toothpaste and uses dental floss daily to clean her teeth. Her toothbrush is the Philips Sonicare®. In the last 4 months she has rinsed her mouth with Listerine® twice daily in preparation of the piercing.

Mouth inspection

Inspection of the mouth shows a healthy parodontium and no caries lesions, and a tongue which is slightly coated (Fig. 2). Her dental hygiene is good.

Questions

1. In which part of the tongue is a piercing placed?
2. What is the main reason for wearing (oral) piercings?
3. Name six complications or possible adverse consequences resulting from oral piercing.
4. The dental hygienist can play an active role in dental intervention. What would you instruct your patient who wishes to obtain an oral piercing?
5. What is the procedure for tongue piercing?
6. What is the healing time after a tongue piercing?
7. Chipped or fractured teeth is the most common dental problem observed followed by trauma to the lingual anterior gingiva. How can these problems be rectified?
8. How do you clean the piercing?
9. Rinsing with Listerine® is often advised. Are there disadvantages in the use of Listerine®?
10. Which questions do you have to ask the patient to get more information about the possible oral problems caused by a piercing?

Answers

1. To place a tongue piercing, a thorough knowledge of the anatomy and histology of the tongue is necessary. The tongue is largely composed of interlacing bundles of skeletal muscle fibres, which can be divided into intrinsic and extrinsic muscles. The tongue is divided by a median septum of connective tissue (1). The dorsal or top surface of the tongue is covered by small elevated specialised mucosa called lingual papillae. It has a mid-line depression called the median lingual sulcus. The ventral or undersurface (Fig. 3) is noted for its visible large blood vessels and the deep lingual veins that run close to the surface (2). A mid-line fold of mucosa, called the lingual frenulum, attaches the tongue to the floor of the mouth. The tongue piercing is placed in the median lingual sulcus. In this procedure, the frenulum and the deep lingual artery should not be damaged. During piercing, a thin layer of less vasculated connective tissues and a thicker layer of well vasculated muscle tissues are penetrated.

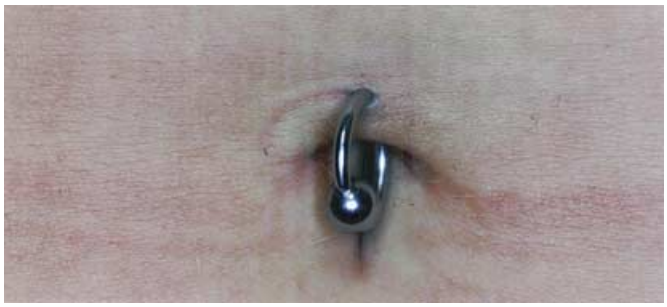

Fig 1. Pierced navel.

2. The main reason for wearing jewellery is for cosmetic reasons. However, wearing such items in unconventional sites, like the tongue, may carry underlining oral sexual connotations; in other words, heightened sexual pleasure for partners (3).
3. The most obvious complications are those of pain and swelling. Because of the vascularisation of the tongue, oedema is a feature of tongue piercing. The oedema can be such that it can cause airway obstruction and embedding of the metal barbell in the tongue during the healing. If this is the case, anti-inflammatory agents are needed to reduce the swelling. Tongue piercing is also associated with a high risk of infection because of the diverse microflora present. Other complications and possible adverse consequences of oral piercing are:
   (a) prolonged bleeding;
   (b) chipped or cracked teeth;
   (c) mucosal or gingival trauma;

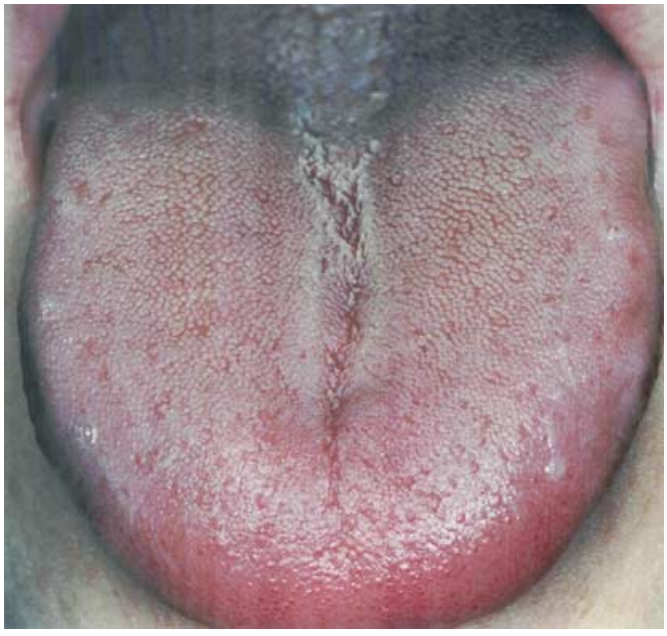

Fig 2. A tongue which is slightly coated.

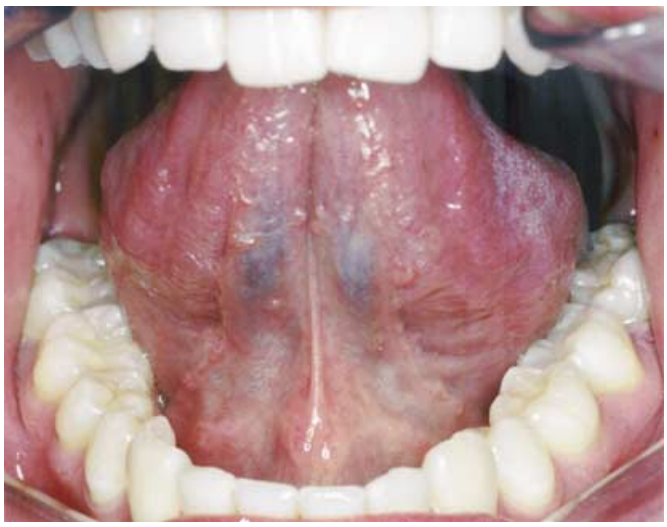

Fig 3. The ventral or under surface.

   (d) interference with chewing and swallowing;
   (e) speech impediment;
   (f) scar tissue formation;
   (g) hypersalivation;
   (h) foreign body incorporation into the pierced site;
   (i) obstructed radiographs;
   (j) nerve damage and paraesthesia;
   (k) calculus formation on metal surface;
   (l) localised inflammation and infection or a systemic bacteremia;
   (m) aspiration or ingestion of the jewellery itself (3–5).
4. Dental hygiene intervention includes instructing the patient about:
   (a) the complications associated with tongue piercing;
   (b) the need for careful evaluation of the piercer's credentials, and infection control;
   (c) the need for quality jewellery;
   (d) the need to keep the site clean to prevent infection;
   (e) the need to remove the jewellery when radiographs have to be taken and during procedures that require local anesthesia (3).
5. According to Farah and Harmon (3), tongue piercings are generally performed with 14 or 16 gauge needles in a two-step procedure. The dorsal surface of the tongue is marked with an indelible pen, usually along the mid-line and anterior to the lingual fraenum. The tongue is held with a clamp or haemostat, and the needle is used to pierce the tongue in a ventral–dorsal direction. The needle is then removed and the free end of the temporary metal jewellery is inserted through a plastic sheath transversing the tongue. Once the barbell shank is in place, the plastic sheath is removed, and a

ball-shaped tip is crewed into place and secured with a pair of pliers. The barbell initially placed has an 18-mm long shank to accommodate the increased swelling during the next 5–6 days. Approximately 2 weeks later, the 18-mm barbell is removed and a shorter 12–15-mm barbell is inserted as the permanent jewellery. If an oversized barbell is not used at the initial placement, oedema can cause it to be embedded in the tongue and the barbell would have to be removed surgically.

6. The healing time is different for every patient and is dependent on his/her general health. An important factor is the personal hygiene of the area involved. The patient is generally advised not to remove the piercing for a year to ensure optimal healing. The average healing time in the literature is 4–6 weeks (3, 6). The slow healing might be related to compromised technique, sterility, wound care and the non-use of antibiotics. Another contributing factor could be the movement of the barbell in the tissue, which could cause inflammatory hyperplastic tissue reaction (6).
7. The chipped or fractured tooth can be restored, and to avoid repetition, the insert should be removed or a shorter barbell should be used. However, if the barbell is removed for a prolonged period (1–2 h), the opening through the tongue can spontaneously occlude (3, 5, 6).
8. The pierced site should be kept as clean as possible, and an antiseptic mouthwash ought to be used 3–4 times a day until the wound is completely healed. Generally, rinsing with Listerine® is advised.
9. Because of its high alcohol content (Listerine® 27.3% and Listerine® coolmint 21.6%), Listerine® can have, as side-effect, irritation of the oral mucosa. Alcohol is added because it is an astringent, lowers the surface tension and it keeps the essential oils in suspension. It has been suggested that Listerine®, because of the high alcohol content, could cause oral/pharyngeal cancer. This has been refuted by the British Dental Association Panel and the American Dental association. They concluded that if used as directed, there was no evidence for mouthrinses to promote oral cancer, and Listerine® has their seal of approval (7–9).
10. Questions which can be asked are:
    (a) Where do you have a piercing in your mouth?
    (b) How long ago did you get this piercing?
    (c) How long did it take to heal?
    (d) Did you require professional, medical or dental treatment?
    (e) If there was sensitivity in the area of piercing, was there anything in particular that it was sensitive to, e.g. foods, liquids, smoking?
    (f) Have you had any dental- or medical-related problems as a result of piercing, like cracked or chipped teeth, gum recession or infection? Please explain.
    (g) Have you noticed any increase in salivary flow since you got the piercing?
    (h) How often do you remove the jewellery from your piercing?
    (i) What is the longest time period you leave the jewellery out?
    (j) What is your method for cleaning your piercing and/or jewellery? (6)

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