Dental jewellery - A review

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ABSTRACT

Today, people are becoming increasingly self-conscious about their appearance and smile. Intraoral jewellery has nowadays gained popularity and is slowly becoming a trend, but this fashion tagline is also associated with some serious health risks. The different jewellery in use today are lip studs, lip rings, tooth rings, grill jewellery, dazzlers and twinkle, veneer jewellery cheek studs, etc. There is an age-old history for dental jewellery as it was considered as a symbol of religion, tribe, culture, and sex. These accessories though are said to enhance beauty cause problems such as increase in plaque levels, inflammation of the gingiva and/or recession, decay, defective occlusion, and metal allergy. There are also some life-threatening complications such as airway obstruction due to aspiration, bleeding, erythema, and endocarditis. If there is a usage of unsterile instruments, it can act as a vector in the transmission of communicable diseases such as hepatitis, tetanus, and tuberculosis in susceptible patients. This review highlights the prevalence, complications, and side effects of dental jewellery.

KEY WORDS: Dazzlers, Endocarditis, Gems, Hemorrhage, Intraoral jewellery, Ludwig’s Angina, Oral piercings, Twinkles

INTRODUCTION

“Beauty lies in the eyes of the beholder,” is the famous saying. The need and want for beauty has prevailed since ages. Our ancestors and religious rituals based on traditions, earlier defined beauty. However, in the current generation, movie stars or famous personalities are believed to set the standards of beauty. A million of people look up and admire what they wear and their appearance. In the field of dentistry, the travel has been a long way from extraction of teeth and replacement to beautification, and the dentists today face challenges from demanding patients who wish for perfectly aligned sparkling white teeth and still more tooth jeweler.[1] Body piercings and the placement of jewellery is an ancient practice, and the sites most commonly involved were the ears, nose, and the mouth. Body piercing is the practice of puncturing or cutting a part of the human body, creating an opening in which jewellery may be worn. The intraoral jewellery most commonly worn are studs, hoops, or barbell-shaped devices which are commercially available.[2,3] Surgical grade stainless steel, 14 carat yellow or white gold, niobium, or even plastic may be used.[⁴] A majority of complications are also associated. All body piercings present a risk of infection and cause pain.[⁵] Complications that most commonly occur related to the jewellery include aspiration, allergy or permanent injury to adjacent teeth/mucosa, tooth fracture, and recession of the gingiva, which can lead to tooth loss or to the piercing procedure include local bleeding, swelling, damage to the nerve, toxic shock, permanent drooling and defective sense of taste and tongue and lip piercings also causes disturbances in speech, taste, and mastication.

HISTORICAL BACKGROUND

The tradition of teeth jewellery has been in practice since 2500 B.C. The Mayans were known to fabricate and place stone inlays that were beautifully carved in prepared cavities on the front teeth. However, the decorations of the teeth had no association with the hierarchy or background of the natives.[⁶] Native Americans carved notches and grooves and placed semiprecious stones in them that enhanced their smile. In those days, cavities were prepared on the teeth to place jewellery. Plant sap mixed with natural chemicals and crushed bones were the paste used to bond jewellery onto the teeth.[⁷]

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DENTAL JEWELLERY TYPES

Grill Jewellery

Most commonly used by artists in hip-hop culture. Gold, silver, and platinum grills are available that are inlaid with precious stones. 10 karat to 24 karat gold is used to make these grills. These might be removable or permanently fitted to the teeth. In African American society, these were believed to reflect the vocal dexterity of the artists. [7]

Twinkles and Dazzlers

Dazzlers consist of stones or diamonds which are embedded into a metal and are specially designed to be bonded to the tooth and these jewels have a backside like an orthodontic bracket which makes them last in place longer. Twinkles are pure gold along with precious stones such as diamond, sapphires, and rubies. Various kinds of shapes are available in the market such as star, triangle, droplet, diamond, heart, and round shape. The procedure to attach these jewels onto the tooth is to get the enamel etched and bond them with flowable composite, mostly near the incisal edge for visibility. [8]

Tooth Gems

A small rhinestone jewel attached to the tooth surface with the help of an adhesive. Some are small stones in the center of the tooth, others people elect to place a jewel-encrusted cap over their teeth. Mostly there are three types - crystal clear, sapphire blue, and ruby red. No kind of teeth preparation is required for these accessories, just etching and bonding is sufficient. [9] There are also removable gems available. These are when the stones are mounted on an invisible glass like microskin. This is, in turn, fabricated in the laboratory to which the precious stones are attached. They can be removed by the individual and fitted when necessary. [10]

Tooth Rings

These accessories require tooth preparation to be fitted. A hole depending on the thickness of the ring is placed in the distal side of the incisal edge of the anterior teeth and the ring is hung into it. The teeth chosen mostly are the maxillary central and lateral incisors. It should be carefully done to avoid any disturbance in occlusion. [11]

Tooth Tattoo

A tooth tattoo or tattooth is done by applying different shades of porcelain in various shapes as requested by the individual onto crowns which are then fired in a furnace. These tattoos are not permanent and can be removed easily by the dentist without causing damage to the crown. [12]

Oral Piercings

An increasing number of individuals present today with piercings into the intraoral or perioral structures. The common sites involved are the tongue, lips, frenum, uvula, and the cheek. Usually, barbell-shaped devices are used. [13,14]

COMPLICATIONS ASSOCIATED

The complications of dental jewellery can be divided into acute and chronic. Acute complications include those that appear within 24 h and chronic include those that occur in the later stages. [1]

Acute Complications

These include post-operative pain, hemorrhage due to damage to the blood vessels, tearing of the surrounding tissues, atrophy of the mucosa, alteration in taste due to nerve damage, disturbance in speech and mastication and generation of galvanic current between the accessories and dental restorations if any. [15,16]

Chronic Complications

These include swelling, pain, trauma to the gingiva or mucosa, fractured or chipped teeth, increased accumulation of plaque and calculus causing infection, gingival recession, allergy, hypertrophic scarring, localized tissue overgrowth, obstruction while taking X-rays for complete oral examination and aspiration of the jewel or a part of it causing airway obstruction. [17,18]

In most serious cases, bacteremia and sepsis can occur with high fever. There can be connective tissue inflammation which spreads into the submandibular, sublingual, and submental spaces leading to Ludwig’s Angina which is a major life-threatening complication. [19,20]

Furthermore, still more the usage of unsterilized instruments cause and act as a factor in spreading deadly diseases such as hepatitis, tuberculosis, HIV, and tetanus. [21]

CONCLUSION

Tooth jewellery is believed to beautify the appearance of an individual, and thereby enhance their confidence making them feel good. Only individuals with proper oral hygiene maintenance should be advised the use of these accessories. Jewels which are removable and do not require any tooth preparation are much better to wear and have reduced complications. Dentists should make patients aware of the potential complications of piercings and should explain to them the importance of proper hygiene. By doing so, damage to the teeth is reduced and complications can also be minimized.

REFERENCES