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Asessment of the Alveolar Bone Surrounding the Mandibular Anterior Teeth of Individuals Wearing a Tongue Stud

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Purpose. One of the latest trends in ornamental body piercing focuses on the oral cavity, with the most common piercing site being the tongue. Oral health care professionals are anecdotally reporting the incidence of radiographically detectable alveolar bone abnormalities surrounding the mandibular anterior teeth in patients who wear tongue studs. This research study was conducted to assess the frequency and extent of bone abnormalities in the supporting alveolar bone adjacent to the mandibular anterior teeth in individuals wearing tongue studs.

Methods. With the use of convenience sampling, periapical radiographs were taken of the mandibular anterior teeth of individuals wearing tongue studs and compared to the radiographs of individuals who had never worn tongue studs (N = 46). Additionally, a self-report questionnaire was used to gather demographic data on participants and specific information related to their piercings. A periodontist conducted blind evaluations of the radiographs.

Results. With an alpha level of .05, a one-tailed t test indicated a significant difference between the two groups, t_{44} = 1.902, P = .032. However, the correlation coefficient comparing length of time to presence of alveolar bone abnormalities was 0.216, indicating a weak relationship between the amount of time that the tongue stud had been worn and the development of abnormalities in the alveolar bone.

Conclusion. These findings indicate that individuals wearing a tongue stud for any length of time are at risk for developing abnormalities in the alveolar bone surrounding the mandibular anterior teeth.

Keywords: Oral piercing, tongue piercing, alveolar bone loss, oral pathology

Introduction

The incidence of ornamental body piercing has increased dramatically in the last decade.[1-11] Recently, much of the focus of body piercing has been in the oral cavity.[2,4-7]The most common oral piercing site is the tongue, with the piercing extending from the dorsal to the ventral surface[2-7] (Figure 1). A small percentage of patients have several piercings, usually one towards the anterior portion of the tongue and the other piercing more posterior.[6] On rare occasions, the piercing is horizontal from one lateral border of the tongue to the other.[3]

Figure 1. Oral and perioral piercings

For most patients with oral piercings, oral health care professionals are providing services after the piercings are already in place, with no opportunity to inform the patient regarding the rationale for not having the piercings done. Therefore, the primary focus should be to inform patients about oral hygiene care for the piercing site and tongue jewelry, as well as the possible negative consequences of the piercing. The ideal outcome would be that after patients are informed about the negative consequences of oral piercing, they would choose to remove the tongue jewelry. That is not a likely outcome, however, and the focus of dental hygienists should be on the health of the oral cavity.

Review of the Literature

In recent years, the incidence of oral piercings has increased in popularity.[1-11] Of the oral piercing sites, the tongue is the most common,[2,4-7] with 81% of the piercing sites reported to be the tongue.[7] The majority of information related to oral piercing is observational and anecdotal.[2] Scientific oral piercing information is primarily in the form of case reports.[2,4] Many of these case studies have been published within the last 10 years.[2] Only minimal scientific data from clinical trials related to oral piercing exists in the dental literature.[2,8] Prior to 2002, there did not appear to be any clinical studies that assessed tongue piercing variables in relation to prevalence of oral complications.[5] The adverse effects associated with oral piercing include clinical and systemic complications.

The most prevalent clinical complication of oral piercing is damage to tooth structure[7,9] (Figure 2). Reports of the percentage of patients with chipped or fractured teeth range from 19.2%5 to 80%.[7] This wide range of difference could be attributed to the differences in data collection methodology. Clinical manifestations that may occur immediately after tongue piercing include pain,[1,2,4,5,7,8,10-13] edema,[1,2,7,8,11,12] swelling[1,4-6,10,13] and prolonged bleeding.[2-8,11,12-15] In a case report of a healthy 19-year-old female, continuous bleeding following tongue piercing resulted in hypotensive collapse requiring hospitalization.[12] As time progresses, other clinical complications of oral piercing include difficulty in chewing and swallowing,[2,4-7,8,11-14] increased salivary flow,[2-4,7-14] speech changes,[2-4,6,7,10-14] mucosal or gingival trauma or recession,[1-7,9-14,16] galvanic reactions,[2,4,5,9,13] jewelry aspiration or ingestion (resulting in injury to the respiratory or digestive tract),[2-4,6,7,12-14,17] and nerve damage.[3,6,7,12-14,17] Multiple case studies report tongue jewelry becoming embedded in the tissue, resulting in the

necessity of surgical removal of the tongue stud.[3,7,13,18,19] In addition to clinical complications associated with tongue piercing, there are also numerous systemic effects.

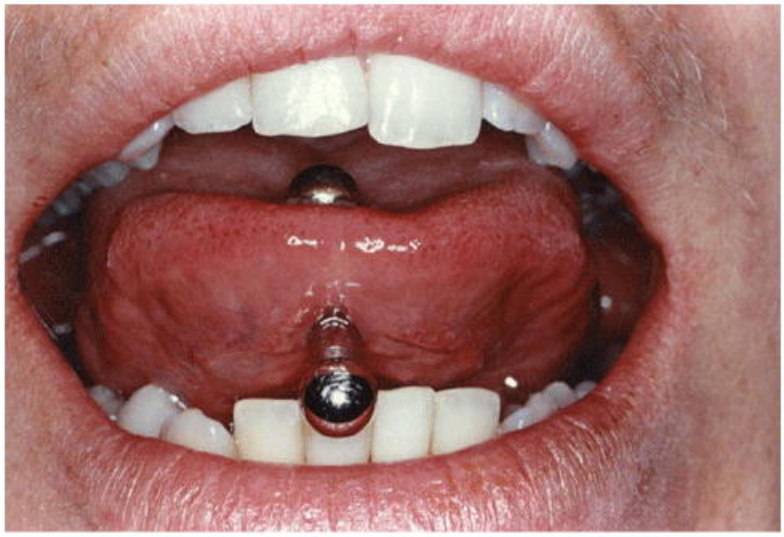

Figure 2. Tongue jewelry in contact with teeth.

Systemic complications associated with oral piercing include infections,[1-8,10,12-14,17,19] Lugwig's angina (inflammation of the connective tissue), [1-4,6-8,11-13,17] and endocarditis. [2,7,8,11,14,20-22] A correlation based on research has not been established between piercing and endocarditis, but case reports that indicate that a correlation may exist are increasing.[2,8] The National Institutes of Health (NIH) has indicated that oral piercing can be associated with the transmission of hepatitis B, C, D, and G.[2,4,11,14] The development of metal hypersensitivity has also been reported.[2,4,7,8,12-14,17] Infections, Lugwig's angina, and metal allergy reactions can cause swelling severe enough to cause airway obstruction.[2,3,6,12-14] Other case studies report a rare form of tetanus[23] and a cerebellar brain abscess[24] following tongue piercing.

In a recent study by Campbell et al., the effects of the time period of wearing a tongue stud and the length of the tongue stud were evaluated in relation to gingival recession and tooth chipping.[5] Fifty-two adults, with a mean age of 22, were examined clinically for recession on the maxillary and mandibular anterior teeth and chipping anywhere in the entire dentition. Ten (19.2%) subjects had lingual recession on the mandibular anterior teeth. Of the affected teeth, 88% were the mandibular central incisors, with tooth #24 accounting for 53% of affected teeth. Lingual recession on the mandibular central incisors was documented in 50% of the subjects wearing long barbells for two or more years. Tooth chipping was documented in 10 (19.2 %) subjects, and only two subjects exhibited both recession and tooth chipping. Ninety-two percent of all chipped teeth were molars and premolars. Of the subjects who had worn tongue jewelry for four or more years, 47% exhibited chipping of molar and/or premolar teeth.[5]

The findings of the above study concur with a 2003 review of case studies, which found that the lingual surfaces of teeth #24 and #25 are the sites of recession most commonly associated with tongue piercing, accounting for 75% of patients examined.[7] Other case studies have reported similar findings. A young female with a tongue piercing presented with gingival recession on the mandibular anterior lingual tooth surfaces, with the recession more pronounced on the lingual surface of tooth #24.[16] Clinical observations of a 22-year-old male revealed that teeth #24 and #25 exhibited recession, 6 mm interproximal probe depths, and radiographic bone loss.[10] A third case study of a young adult with both a tongue and lip piercing reported severe recession and radiographic pathological changes of the periodontium. This case study concluded that "oral body art (piercing) can be hazardous to the periodontium; nevertheless, patients inclined to such practices do not see them as health hazards and are very reluctant to remove them."[25]

Current literature on the negative consequences of oral piercing is presented primarily as informative articles and case studies, with the first medical literature on the subject published in 1992.[12] Literature published from 1992 to 1999 reveals similar findings as previously discussed of possible multiple negative consequences of oral piercing. Although oral health care professionals are anecdotally reporting the presence of radiographically detectable bone loss associated with the wearing of a tongue stud, there have been no clinical research studies on this variable. The purpose of this research was to investigate the prevalence and extent of radiographically detectable osseous deformities in the alveolar bone surrounding the mandibular anterior teeth in individuals wearing a tongue stud.

Methodology

The subjects participating in this study were a convenience sample residing in the Ogden, Utah area. After institutional review board approval, patients receiving services at the Weber State University (WSU) dental hygiene clinic were evaluated for the presence of a tongue stud and offered the opportunity to participate in the study. In addition, subjects were recruited from the WSU campus through promotion of the research in a campus newspaper, flyers on campus bulletin boards, and tabletop signs in areas of student activity. All subjects completed a health history form and interview, and signed a consent form to participate in the study. A self-report questionnaire was used to gather information regarding demographics (age and gender) and specific questions related to their piercings. Specific questions included the length of time that the tongue stud had been worn, how often the tongue stud was worn, and how often the tongue stud was bothersome to the teeth and/or gingiva.

Following completion of the self-reported questionnaire, the oral health care provider (a registered dental hygienist or a dental hygiene student under the supervision of a registered dental hygienist) measured the length of the tongue stud and the diameter of the tongue stud ball with a UNC-12 probe with millimeter markings. Additionally, information was collected by visual examination on the presence or absence of damage to the teeth and gingival tissues. Level of oral hygiene care (good, fair, or poor) was noted for each subject. A periapical radiograph of the mandibular anterior teeth was exposed using double-film packet F-speed (Insight) film. The paralleling technique with the XCP/Rinn film holding device was used for all radiographs. One radiograph was retained for the reseach data, and the other radiograph was given to patients for their dentists to review and retain. Patients were then given verbal information on oral hygiene care of their piercing area. Verbal information and a two-sided printed handout on the possible negative consequences of oral piercings were given to the patients.

Control group subjects were a convenience sampling of patients who had previously been treated at the WSU dental hygiene clinic and had had a full mouth series of radiographs exposed at a prior appointment. The control group subjects were selected to match the same gender distribution and similar mean age as the experimental group. All control subject radiographs had been taken with the paralleling technique using the XCP/Rinn film holding device and F-speed (Insight) film. The mandibular anterior periapical radiograph of the existing full mouth series was utilized for the control group comparison film.

Following data collection, the radiographs were evaluated by a periodontist in a blind process, so as to not identify subjects by name or status of tongue stud presence. The periodontist evaluated each radiograph on the presence or absence of radiographic calculus, degree of periodontal involvement, and degree of osseous deformities in the alveolar bone inferior to the alveolar crest. For degree of periodontal involvement, the evaluation question asked, "Does the enclosed radiograph show evidence of bone loss in the anterior alveolar bone, as measured from the CEJ [cementoenamel junction] to the alveolar crest?" The periodontist evaluated for no bone loss (CEJ to alveolar crest = 1.5 mm), minimal bone loss (CEJ to alveolar crest 2-4 mm), moderate bone loss (CEJ to alveolar crest 5-7mm), or advanced bone loss (CEJ to alveolar crest 7 mm).

For degree of osseous deformities in the alveolar bone inferior to the alveolar crest, the evaluation question asked, "Does the enclosed radiograph show evidence of osseous deformities unrelated to periodontal disease as evidenced by radiolucent areas in the alveolar bone, apical to the most coronal portion of the alveolar bone?" The periodontist rated each radiograph as no bone loss or abnormalities observed, minimal evidence to support bone defects apical to coronal bone, moderate evidence to support bone defects apical to coronal bone, or definite evidence to support bone defects apical to coronal

bone. Example diagrams were provided as a reference for degree of periodontal involvement and for degree of osseous deformities in the alveolar bone inferior to the alveolar crest (Figure 3). For both evaluation questions, the periodontist could also evaluate the film as nondiagnostic due to image or shape distortion, density problems (too light or too dark), or other problems that resulted in a nondiagnostic radiograph.

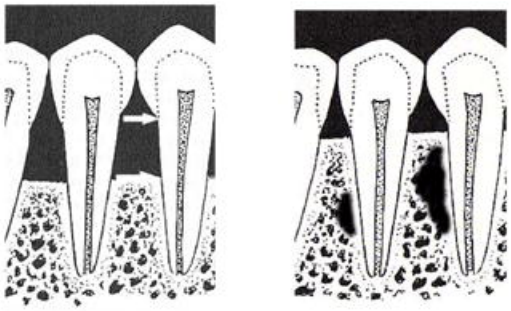

Figure 3. Example diagrams provided as a reference for periodontist evaluator for questions on degree of periodontal involvement (left picture) and degree of osseous deformities in the alveolar bone inferior to the alveolar crest (right picture)

Statisical analysis of data was conducted using Microsoft Excel software (2002, Redmond, WA), and included descriptive, correlational, and independent sample t-test statistics. Descriptive statistics for the experimental group related to the length of time that the tongue stud had been worn, how often the tongue stud was worn, how often the tongue stud bothered the subjects' teeth and/or gingiva, and level of oral hygiene. Correlational statistics compared three variables (the length of the tongue stud, the diameter of the tongue stud ball, and the length of time that the tongue stud had been worn) to presence of osseous abnormalities inferior to the alveolar crest. Independent sample t-test statistics were conducted comparing the experimental group to the control group in relation to presence or absence of mobility, recession, periodontal pocketing, and broken teeth. Additionally, independent sample t-test statistics were conducted comparing the experimental group to the control group in relation to radiographic presence of calculus, periodontal disease, and osseous deformities in the alveolar bone inferior to the alveolar crest.

Results

The experimental group and the control group each consisted of 14 females and nine males, for a total of 23 subjects in each group. The mean age of the experimental group was 23.4 years old, with a range of 18 to 39 years. The mean age of the control group was 23.9 years old, also with a range of 18 to 39 years. Each subject in the experimental group had only one tongue piercing, with none having multiple piercings of the tongue or other oral sites. Descriptive statistics for the experimental group were calculated for the length of time the tongue stud had been worn, how often the tongue stud was worn, how often the tongue stud was bothersome, and level of oral hygiene. The mean length of time that the tongue stud had been worn was 3.36 years, with a range of 0.33 years to 12.50 years. Four subjects had worn the tongue stud for up to one year, five from one to two years, one from two to three years, seven from three to four years, two from four to five years, and three for more than five years (Figure 4). One of the 23 subjects did not respond to the question.

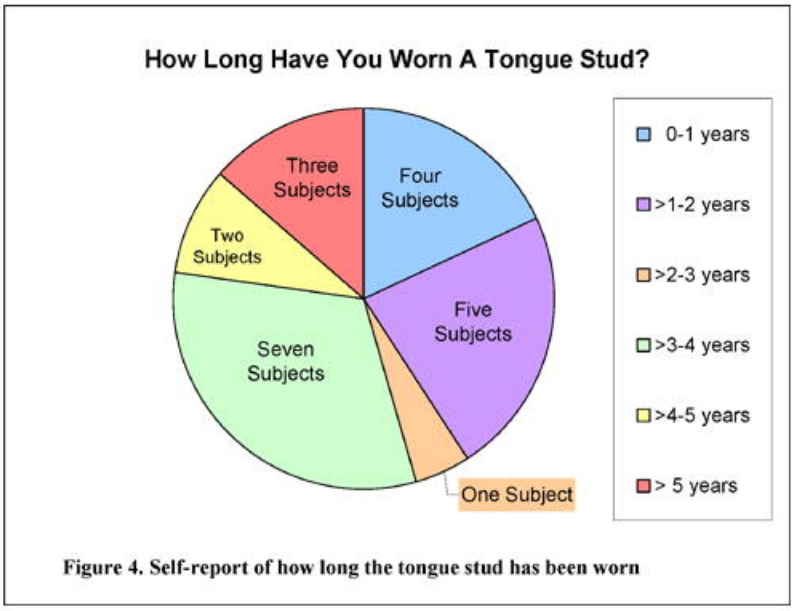

Figure 4. Self-report of how long the tongue stud has been worn

When asked how often the tongue stud was worn, 21 subjects reported that they always wore the tongue stud, one reported wearing it occasionally, and one declined to answer. No subjects reported rarely or never wearing the tongue stud. Descriptive statistics on how often the tongue stud was bothersome revealed that nine (41%) were never bothered, 11 (50%) were rarely bothered, and two (9%) were occasionally bothered (Figure 5). None of the subjects reported that their tongue stud always bothered their teeth and/or gums, and one subject declined to answer the question. For the experimental group, the oral health care provider reported seven subjects having poor oral hygiene (30%), eight having good oral hygiene (35%), and six having excellent oral hygiene (26%). Two were not reported (9%).

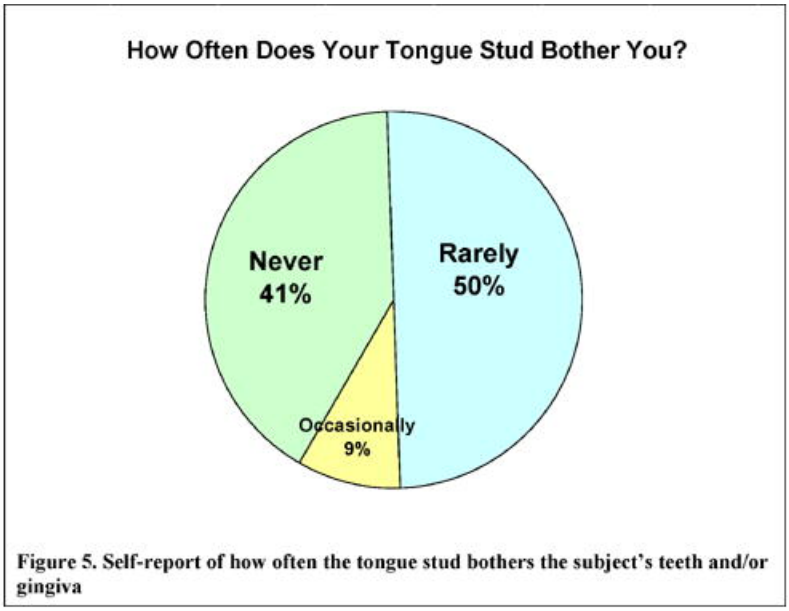

Figure 5. Self-report of how often the tongue stud bothers the subject's teeth and/or gingiva

The mean length of the tongue stud was 17.24 mm, with a range of 13.00 mm to 22.00 mm. The mean diameter of the tongue stud ball was 6.19 millimeters, with a range of 5.00 mm to 9.00 mm. The correlation coefficient comparing length of tongue stud to evidence of osseous deformities was 0.152, indicating that there was a very weak relationship between the length of the tongue stud and evidence of osseous abnormalities. The correlation coefficient comparing size of tongue stud ball to evidence of osseous deformities was -0.366, indicating a weak negative correlation between the two variables.

Additionally, a correlation coefficient was calculated comparing the length of time the tongue stud had been worn to evidence of osseous deformities. The correlation coefficient was 0.216, indicating a very weak relationship between length of time the tongue stud had been worn and presence of osseous deformities.

Mobility of the mandibular anterior teeth was documented in two subjects in the experimental group as compared to none in the control group. Mobility data were not available for five subjects in the experimental group and six subjects in the control group. With an alpha level of .05, a one-tailed *t* test for two independent samples indicated no significant difference between the two groups for mobility, $t_{33} = 1.415$, $P = .0831$. Recession was noted for nine subjects in the experimental group as compared to one in the control group. Recession data were not available for one person in the experimental group and six in the control group. The *t* test for two independent samples indicated a significant difference between the two groups for recession, $t_{37} = 2.637$, $P = .006$.

Periodontal pocketing was documented in four subjects in the experimental group as compared to two in the control group, and broken teeth were noted for eight subjects in the experimental group, as compared to two in the control group. In the experimental group, data were not available for two subjects for periodontal pocketing and one subject for broken teeth. For both variables, control group data were not available for six subjects. A *t* test for two independent samples indicated no significant difference between the two groups for periodontal pocketing, $t_{36} = 1.184$, $P = .1220$. However, there was a statistically significant difference between groups for presence of broken teeth, $t37 = 1.770$, $P = .0425$.

In the blind evaluation by the periodontist, all radiographs were assessed to be diagnostically acceptable. Radiographic calculus was noted for five subjects in the experimental group, as compared to one in the experimental group. A *t* test for two independent samples indicated a significant difference between the two groups for presence of radiographic calculus, $t_{44} = 1.773$, $P = .0416$. Figure 6 compares the experimental group and the control group for mobility, recession, periodontal pocketing, broken teeth, and radiographic calculus.

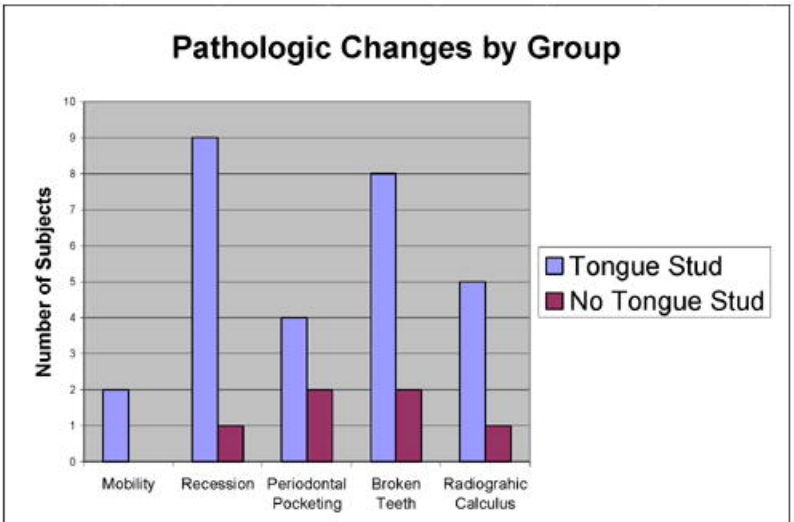

Figure 6. Number of subjects in each group with mobility, recession (statistically significant), periodontal pocketing, broken teeth (statistically significant), and radiographic calculus (statistically significant)

A one-tailed *t* test for independent samples with an alpha level of .05 was conducted to compare the experimental group and the control group for evidence of radiographic bone loss due to periodontal disease. This indicated a significant difference between the two groups for presence of periodontal disease, $t_{44} = 2.244$, $P = .0149$. Additionally, a one-tailed *t* test was conducted to compare the experimental group and the control group for evidence of osseous deformities unrelated to periodontal disease as evidenced by radiolucent areas in the alveolar bone inferior to the alveolar crest, $t_{44} = 1.902$, $P = .0319$, indicating a statistically significant difference between groups (Figure 7).

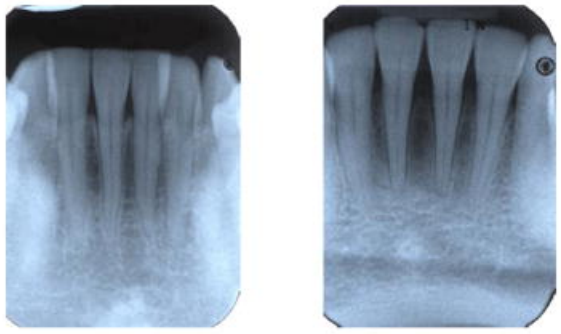

Figure 7. Radiographic osseous abnormalities inferior to an intact alveolar crest in patients with tongue piercings

Discussion

These results suggest that individuals wearing a tongue stud for any length of time are at risk for development of osseous deformities in the alveolar bone surrounding the mandibular anterior teeth. Current literature portrays tongue piercing as a trend more prominent in young adults, which concurs with the descriptive data of this study. Although the age range of the subjects was 18 to 39 years, the mean age was less than 24. More females than males were subjects in this study, 14 versus nine. Initially, it may appear that more females than males have tongue piercings. However, the difference could be due to the possibility of females seeking oral health care more frequently than males.

Seventeen of the 23 subjects in the experimental group had their piercings for four years or less. This supports the evidence in the literature of the growing trend of oral piercings. Twenty of the 23 subjects reported that their teeth and/or gingiva were never or rarely bothered by their tongue stud. Because of this, many with oral piercings may perceive that there are no negative effects from the presence of an oral piercing. Even if these individuals were informed about the possible pathologic changes, they might feel that the information is not pertinent to their oral cavity. Seventy-one percent of the experimental group were evaluated by the oral health care provider to have good or excellent oral hygiene. Overall, it would appear that most of the subjects with oral piercings practiced adequate oral hygiene. However, as this variable was not defined on the data collection tool, it is subjective and cannot be considered reliable.

The length of the tongue stud had a very weak correlation to the presence of osseous deformities. This may be dissimilar to the results reported in current literature, which found that a long-stem barbell resulted in a significantly greater prevalence of lingual recession. However, when considering the length of the tongue stud and its relationship to osseous changes, the size of the person and/or person's tongue could impact outcomes. If the length of the tongue stud is longer, it may have been due to the fact that the person's tongue is larger and required a longer tongue stud. The diameter of the tongue stud ball also had a very weak correlation to the presence of osseous deformities. The very weak correlation may be indicative of multiple other variables that could result in pathologic alveolar bone changes. The behavior of the person in amount of movement of the tongue stud would impact the degree of pathologic changes. Some people are very aware of their tongue studs, and move their tongues with increased frequency, which results in the tongue stud balls having more contact with adjacent structures. Another additional variable not investigated is the composition of the tongue stud ball. The acrylic tongue stud balls may be less detrimental than stainless steel metal balls to oral structures.

Most importantly, the length of time that the tongue stud had been worn had a very weak correlation to the presence of osseous deformities. One would think that, as the tongue stud was worn for a longer period of time, more alveolar bone abnormalities would be detected, but this did not appear to be the case. This finding conflicts with current literature that found that gingival recession and tooth chipping increased at a statistically significant rate over time. However, statistical analysis for this study on radiographic alveolar bone abnormalities found that the length of time wearing the tongue stud did not appear to be a reliable indicator of possible osseous changes in the mandibular anterior alveolar bone. Inherently, there are many other variables that could impact a person's resistance to pathological changes in the bone, such as the

person's overall health, the strength of the immune system, and the initial anatomical features and quality of the alveolar bone.

A statistically significant difference between groups for recession and broken teeth was observed when the variables for mobility, recession, and periodontal pocketing of the mandibular anteriors and broken teeth in the entire dentition were examined. This supports the current literature reports of a higher incidence of recession and broken teeth associated with the presence of an oral piercing. The experimental group and the control group were statistically different when examining the variables for radiographic presence of calculus and periodontal disease. The higher incidence of radiographic calculus in the experimental group could potentially lead to a higher prevalence of periodontal disease. This difference may be due to multiple variables other than the presence of a tongue stud. However, as the current literature suggests that there is increased salivary flow with the presence of a tongue stud, there is a sequential effect of increased salivary flow leading to increased calculus accumulation, which could lead to an increased incidence of periodontal disease. The variable comparing the experimental group and the control group for evidence of osseous deformities unrelated to periodontal disease as evidenced by radiolucent areas in the alveolar bone inferior to the aleolar crest was statistically significant. There does not appear to be other commonly known variables that would result in this type of pathological change.

There are several weaknesses to this study. Weaknesses include the convenience sampling of subjects selected for the study, as experimental group subjects were specifically recruited to participate in the study, while control group subjects were pulled from existing patient records. The convenience sampling was also from a small geographic area, which could be biased. The sample size was small and limits generalization of the results to a larger population. Additionally, multiple oral health care providers collected the data. Investigators were calibrated with a one-page instructional sheet. Some variables, such as level of oral hygiene, were not clearly defined. If the study were to be repeated, a larger sample from a larger geographic area would be critical in order to increase generalizabilty of results, fewer and more calibrated oral health care providers should collect the data, and variables should be more clearly defined to lend objectivity to more subjective information. A future study recommendation would be to examine radiographs of the same subjects prior to piercing and subsequent radiographs over time after piercing.

As dental hygienists provide services for an increasing number of patients with oral piercings, they must have current and comprehensive knowledge concerning treatment recommendations, oral hygiene instruction, and patient education on the negative effects of oral piercing. When considering treatment recommendations, radiographic treatment planning should be considered for patients with oral piercings. In the mandibular anterior area and any other areas where negative effects from oral piercing appear to be clinically present, periapical radiographs should be taken. An initial periapical survey of the area should be made to establish baseline alveolar bone characteristics. Regular subsequent repeated film surveys of the involved areas should be exposed. How often subsequent radiographs are exposed would require consideration of the individual's degree of pathology observed with the baseline films. For a patient with obvious osseous involvement, radiographs may need to be taken at six-month intervals, whereas a patient with an appearance of a normal, healthy alveolar bone may have radiographs exposed annually to examine the area. To benefit the patient to the greatest degree for diagnostic purposes, radiographs should be of high quality and exposed with the paralleling technique to minimize distortion. Panoramic radiographs should not be used for this purpose because they lack adequate detail.

Continuing education on oral piercings would be beneficial for dental hygienists. Information on oral hygiene instructions for patients with piercings and the negative effects of oral piercings can be obtained through a variety of methods. The Association of Professional Pierciers (APP) has a brochure available on care following tongue piercing The brochure can be accessed and printed at http://www.safepiercing.org/PDFs/aftercare_oral.pdf. The American Dental Association (ADA) has a one-page color handout to utilize for patient education on the negative effects of oral piercing. The handout can be viewed and printed from the ADA Web site at http://www.ada.org/prof/resources/pubs/jada/patient/patient_04.pdf. Adobe Acrobat or Adobe Acrobat Reader is required to download both of the above publications.

The Adademy of General Dentistry (AGD) has two patient handouts on the topic of oral piercing. The first handout, "To Pierce Or Not To Pierce," is for the non-pierced patient who is considering tongue piercing. It emphasizes the oral implications of tongue piercing. This handout can be viewed and printed from the AGD Web site at http://www.agd.org/consumer/topics/piercing/tongue.html. The second handout, "So You Want To Pierce Your Tongue," details oral complications and discusses oral hygiene care for the piercing area and available at http://www.agd.org/consumer/topics/piercing/main.html. Jordan and Stein[3] recommend that patients treat tongue jewelry

like orthodontic appliances, avoiding hard, sticky foods and cleaning the barbell after each meal by removing and brushing it. Additionally, if an individual with a tongue stud participates in sports activities, an athletic barbell made of resin is recommended. A better option for sports participation would be removal of the tongue stud during the activity.[26]

Conclusion

This study supports the hypothesis that patients who wear tongue studs for any length of time have an increased risk of osseous deformities in the alveolar bone surrounding the mandibular anterior teeth. Considering this and the other known pathologic consequences of oral piercing, dental hygiene professionals must be knowlegeable to provide the highest quality of care for patients with oral piercings. Ongoing radiographic analysis of the alveolar bone is important for oral piercing patients. Patients must be informed that wearing a tongue stud for even a short time may place the supporting structures of their mandibular anterior teeth and other affected areas at risk.

Dental hygienists should be aware of the increasing occurrence of oral piercing and its health implications. Oral health care providers have an ethical responsibility to be current in knowledge that will assist all patients in attaining optimum oral health. Patients, especially those who are in their adolescent, teen, and young adult years, need to be informed of potential complications and dangers associated with oral piercings and how to maintain their pierced areas. Dental hygienists must have a goal of enabling patients who choose not to remove their oral piercings to attain the healthiest level possible of oral health. The ultimate goal is to inform patients prior to the oral piercing so that more make the choice not to pierce or, if pierced, choose to remove their piercing for their future oral health.

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Notes

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