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CASE REPORT

Palatine Tonsillolith as a Cause of Halitosis

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ABSTRACT:
Tonsillolith palatine is a condition which is caused by trapping plaque that formed by an accumulation of sulfur-producing bacteria, fungus, desquamated cells, and food debris which attached on tonsillar palatine crypts. This plaque may cause halitosis due to formation of volatile molecule which caused pathological or non-pathological condition. The purpose of this study is to manage the halitosis which is caused by tonsillolith palatine. Case report presented was a female of fifty-six-year-old, came to a clinic, suffered from difficulty of deglutition, shore throat, itching in posterior of the mouth. Clinical examination showed the left tonsillar palatine was slightly red, protruding lesions appeared with hard consistency, well delineated, non-tender, white pin point in the tonsillar mass. Her Oral hygiene index is fair, there was palpable submandibular lymphadenophaty. The tonsillolith size was 2x3x1 mm. Treatment applied was removal of the tonsilolith by excavator, using mouth rinsing, prescribed antibiotic, and oral hygiene maintenance. In two-weeks treatment time tonsillolith excavated, the halitosis disappeared.
Key words: Palatine Tonsillolith, Halitosis.

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INTRODUCTION

Tonsillolith are stones or plaque that are formed by an accumulation of sulfur-producing bacteria, fungus, desquamated cells, food debris, and foreign particles which attaches on the tonsillar crypt. This abnormality is a rare plaque that develops in the enlarged tonsils without providing any clinical signs and symptoms. Tonsilolith consists primarily of calcium, other substances are phosphates, magnesium and carbonates that may lie in the palatine tonsil, nasopharyngeal tonsils, or lingual tonsils. But most commonly found in the palatine tonsil. Stones show differences in size, shape and colour. The prevalence of tonsilloliths was 24.6% of populations.[1] Tonsilloliths occur more frequently in adults than in children. Recurrent infections seem to be involved in the pathogenesis of tonsilloliths. So, tonsilloliths would be more likely to be found in elderly people.[2] Tonsillolith is one of the cause of halitosis which is any unpleasant odor emerging from the mouth. Many patients experience discomfort and embarrassment.[3,4] This undesirable condition is a common complaint for both genders and for all age groups. Origin of halitosis in 90% of the patient is oral cavity; 9% of patient source of halitosis is systemic factor, 1% of patient source of halitosis is drug and food.[3] The purpose of this study is to manage the halitosis which is caused of tonsillolith palatine.

CASE REPORT

The case report presented was a female of fifty-six-year-old was coming to a clinic suffered from difficulty of deglutition, shore throat, and itching in posterior of the mouth. On swallowing pain arise on the left side of the oral cavity that spread to the tonsils and pharynx. She had presented with bad breath, was feeling unsatisfied when talking to other people, and had no systemic disease involved, on clinical examination the left tonsillar palatine was found to be slightly red, prominent lesions appeared with hard density, well-defined white lines,not soft, white pin point in the left tonsillar mass, white mass were difficult to remove, the left tonsils were slightly inflamed, and she had slight bad breath. Her Oral hygiene index is fair, no caries, filling in 16, 36, 44, 46, 26,37, and 47 were missing, periodontal tissue condition was good. There was palpable submandibular lymphadenophaty. Treatment applied was removal of the tonsilolith, administered mouth rinsing, antibiotic, and oral hygiene

maintenance. Removal of tonsillolith stones in the left palatine tonsil which is being inflamed is carried out by an excavator above the submucosal surface(figure 1 and 2). The taken tonsillolith stone looked irregular, hard in consistency, white in colour, and had size of 2x3x1 mm. Postoperative recovery is good and within two weeks after tonsillolith is excavated, halitosis disappears. This was an incidental tonsillolith palatine occurrence, which was a halitosis-inducing factor. Our results show that tonsilloliths should be considered as a possible cause of halitosis.

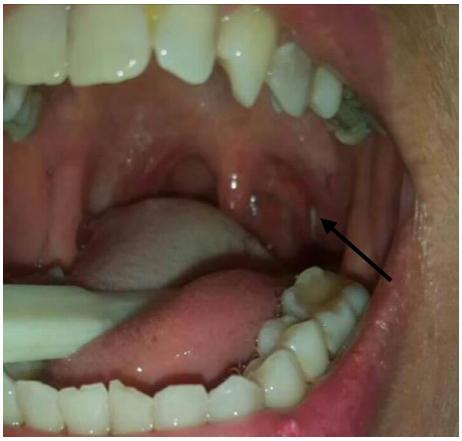

Figure 1: White mass in the left tonsillar palatine (black arrow)

Figure 2: Tonsillar palatine condition after excavating the white mass

Figure 3: White mass from tonsillolith palatine

DISCUSSION

In this study, patient were detected with tonsillolith palatine and halitosis. It can be explained, even the patient had normal medical and dental condition, her periodontal tissue status was good, but she had tonsillar white mass and suffered from halitosis. Tonsilloliths are rare calcified structures that usually result from chronic inflammation of the tonsils. They are usually asymptomatic but can be associated with halitosis, foreign body sensation, dysphagia and odynophagia, otalgia, and neck pain. Tonsillolith palatine is a condition which caused by trapping stones in tonsillar palatine crypts. These compounds result from the proteolytic degradation by predominantly anaerobic gram-negative oral microorganisms of various sulfur-containing substrates in food debris, saliva, blood, and epithelial cells.[3] Substrates for volatile sulfide compounds production are sulfur-containing amino-acids such as cysteine, cystine and methionine present in saliva or gingival fluid.[4] Tonsilloliths were found to be located in the tonsillar fossa in 21.2% of cases, in the tonsillar tissue in 69.7% and in the palatine in 9%, with a variation of sizes ranging from a few millimetres to several centimeters. The weight of such lesions ranges from 0.56 g to 42 g (mean 9.5 g). Although tonsilloliths usually present as single stones of hard consistency, multiple bilateral small calculi can also be observed. Tonsilloliths occur more frequently in adults than in children, most commonly between 20 to 68 years with no gender predilection.[1]Clinically, these patients often describe worse halitosis symptoms when they expel a tonsillolith.[1,4,5] Most elder patients suffer from halitosis associated to xerostomia. The intensity of sulfur compounds is increased because of salivary flow reduction or xerostomia. Saliva functions as a buffering or a cleaning agent and keeps bacteria at a manageable level in the mouth. Reduction of the salivary flow has negative effects on self-cleaning of the mouth and inadequate cleaning of the mouth causes halitosis.[6,7] Halitosis causes retention of bacteria or fungus that accumulated in tonsillar mass. This report was to indicate the tonsilloliths palatine as a cause of orofacial pain and halitosis. After excavated of tonsillolith palatine continued by mouthrinses.[8] It is clear that a successful treatment of halitosis involves an appropriate diagnosis, professional therapy, mechanical plaque control, including tooth brushing and tongue cleaning if there was colony bacteria at the dorsum of the tongue, possibly combined with the use of an effective antimicrobial mouth rinse. After a positive diagnosis for oral halitosis has been made, the treatment plan is implemented, which comprises elimination of the causative agent and improvement of the oral health status.[8]

CONCLUSION

Tonsillolith is one of the cause of halitosis. Treatment applied was removal of the tonsilolith by using excavator, administer mouth rinsing, antibiotic, and oral hygiene maintenance. In two-weeks treatment time tonsillolith excavated, the halitosis disappeared.

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