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CASE REPORT

Management of Osteoma Peripheral Type in the Lingual of Right Lower Jaw

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ABSTRACT

Background: *Osteoma is benign bone tumors are often found in skeletal bones. These tumors can involve any bone, but usually involve the long bones. The affected bone is generally prominent and clinically visible. This tumor is treated with surgery to remove the tumor mass. The cause of osteoma is unclear, but generally accepted theories are related to embryology, trauma, or infection.* ***Objective:*** *This case reports a osteoma peripheral type in the lingual of right lower jaw and and discuss according to the literature and several other similar cases.* ***Case Report:*** *A 37 years old man with chief complaint swelling in the posterior region right lower jaw for 16 years without pain, fever or any symptom.* ***Case management:*** *Panoramic radiograph and provisional diagnosis was made before surgery. Surgical excision was previously conducted under general anesthesia. Six months after surgery, the patient is in good health.* ***Conclusion:*** *Peripheral osteoma at the lingual surface of the right lower jaw be can be surgically treated well and do not show recurrence.*

Keywords: *osteoma peripheral type, lower jaw, excision*

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INTRODUCTION

Osteoma is referred to as a benign bone tumor and is characterized by the unnoticed proliferation of cancellous or compact bone. At either an endosteal or periosteal site, it is distinguished by the growth of either cancellous or compact bone. In contrast to endosteal or central osteoma, which develop from the endosteum, and periosteal or peripheral osteoma, which develop from the periosteum, extra-skeletal soft tissue osteoma frequently forms within the muscle.[2] There are now three theories explaining the pathophysiology of peripheral osteoma: reactive to trauma, developmental, and neoplasm.[3,4,5]

While some researchers identify it as a real neoplasm, others categorize it as a developmental aberration, or a reactive lesion brought on by injury, muscle strain, or infection. 2-4 In the oral and maxillofacial region, single osteomas are infrequent in the facial bones and uncommon in the jaws. Most single osteomas develop in the skull, with the frontal sinus being their preferred location. 1 Nevertheless, lesions are also present in the lower jaw, particularly on the inferior border, angle, and lingual side of the body.[2]

Unless they form within the medullary space, osteomas are often painless, slow growing, swollen, asymmetrical, and palpable as bony hard nodules or masses.[2] Although it can happen at any age, it typically affects young adults under thirty years old.[6] This tumor has continued to grow for the past eight years as well as for many years following adolescence.[7]

There is still considerable debate over the gender propensity of osteoma instances, while some reports have stated that there is no gender inclination.[8,9] According to some studies, the prevalence and frequency are 2 to 1 in favor of men. The preferred course of treatment for osteomas is surgical excision, which is suggested when there are clinical symptoms.[11] A case of lingual surface osteoma of the right lower jaw is presented in this study.

CASE REPORT

A 37 years old male was referred to the department of oral and maxillofacial surgery, Hasan sadikin hospital Bandung. He complained swelling for the last sixteen years, and it was increasing slowly without symptom. Extraoral examination were seen symmetry and within normal limits (Fig. 1A). On intraoral inspection, there was a 5 cm by 2 cm with height 1 cm, immobilemass on the left side of the lower jaw. Hard, immobile and without pain in palpation. The same color as the surrounding tissue (Fig. 1B). Panoramic and occlusal radiographs revealed a large solitary exophytic radiopaque mass on the lingual side of the right mandibular (Fig. 2). General state and laboratory test findings were normal limits.

CASE MANAGEMENT

Based on history taking, clinical examination and radiograph, diagnosis is osteoma pheriperal type. The bony mass was removed with an intraoral approach using osteotomes in general anesthesia with nasopharyngeal intubation. The bony mass osteoma was divided into several parts (Fig. 3). The bony mass that have been removed than smoothed with a bone file and bone bur and speciment sent to histophatological department. The patient recovered well from surgery with no complications. Histopathological result showes osteoma. Patient was follow up periodically after operatif.

Figure 1. Clinical appearance of osteoma from extraoral (A) and intraoral (B).

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Figure 2. Panoramic and occlusal radiographs

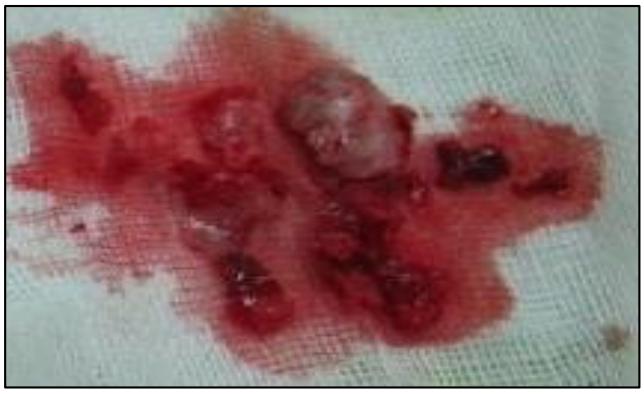

Figure 3. The surgical specimen after surgery

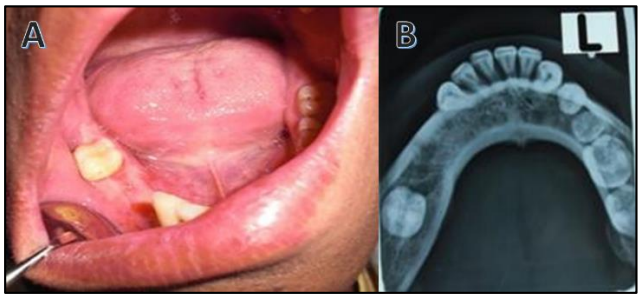

Figure 4. Six month condition after surgery (A) intraoral appearance (B) occlusal radiograph.

DISCUSSION

Osteomas are uncommon benign bone tumors that are frequently found in the maxillofacial skeleton. The frontal, ethmoid, and maxillary sinuses are where peripheral osteoma most usually develops in the maxillofacial region.[3] The lower jaw has peripheral osteomas more frequently than the maxilla.[6,7] Lesions in the lower jaw are most frequently encountered on the lingual side of the structure, typically posterior to the premolars.[3]

In our situation, an osteoma was seen on the lingual side in the premolar to molar region. Osteoma will manifest in our situation as slow-growing and painless. During the previous sixteen years, the patient had noticed swelling, which was gradually becoming worse without any apparent symptoms. According to Kaplan et al., most lesions are discovered after the age of 25, and the age at which they are first recognized varies from 15 to 75 years. The lesions might last anywhere from 1 and 22 years. Even though, men are involved in this report's case, it is said that women predominate by a 3:1 ratio.[4]

Osteomas are benign tumors that develop in mature bone tissue and are frequently detected in the bones of the face skull.[16] Osteomas are divided into three categories based on where they originate: centrally, within the bone; peripherally, extending from the bone's surface; or heterotopically, originating outside of the bone in soft tissue. Nevertheless, this was changed to two forms in the 2017 World Health Organization (WHO) classification: core osteoma and surface osteoma.[11,16,17] A sclerotic lamellar bone nodule with nearly no intertrabecular space was identified during histopathological analysis. Exostoses is a differential diagnosis for osteoma.[14,18]

Torus mandibular (TM) are mostly bilateral, symmetrical, asymptomatic, and lingually present. They can grow huge, and patient start to feel uncomfortable. Clinically, TM can manifest as a single, numerous, unilateral, or bilateral hard growth in an edentulous or dentulous jaw. Many mandibular tori are modest in size.[12] The adult trabecular and cortical bones, which are referred to as hyperplastic bones and include tori, share the same histological properties as other types of exostoses.[13,19]

Gardner's syndrome testing is necessary for patients with osteomas. The three clinical symptoms of this syndrome are multiple impacted or extra teeth, skeletal deformities, and colorectal polyposis. Peripheral and endosteal osteomas, which can develop in any bone but are more common in the skull, ethmoid sinuses, lower jaw, and maxilla, are included in the skeletal involvement. The syndrome also includes epidermoid cysts and cutaneous fibromas as additional symptoms. Fewer than 10% of patients exhibit all three symptoms,

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although 45% of patients exhibit some traits, and 14% of patients have skeletal features.[2-4] When a youngster has a real osteoma of the jaw, Gardner's syndrome should be investigated. It starts in the second decade, and by the time a person is 40, the percentage of colorectal polyps that turn malignant has nearly reached 100%.[4] Even if in certain cases, osteoma has not been linked to Gardner's syndrome in the same way as in this instance.[20] Peripheral osteoma recurrence following surgical removal is very uncommon. For two to three years, radiographic follow-up on a six-month schedule is advised. Peripheral osteoma malignant transformation has not been documented in the literature.[3]

CONCLUSION

Peripheral osteoma at the lingual surface of the right lower jaw be can be surgically treated well and do not show recurrence.

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