

Stafne bone cyst: A case report with review of literature

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ABSTRACT

Stafne bone cyst also known as lingual mandibular bone defect of the mandible is believed to be caused by mandible developing around the lobe of the submandibular salivary gland during embryonic life. Stafne bone cyst is generally encountered incidentally on routine plain radiograph. A dental practitioner should be familiar with stafne bone cyst to avoid misdiagnosis. We report a case of stafne bone cyst with review of literature.

Key Words: Stafne Bone Cyst

INTRODUCTION

Stafne bone cyst also known as lingual mandibular bone defect of the mandible is an invagination in the medial surface of the mandible, usually in the third molar angle area¹. It was described for the first time by Edward Stafne in 1942², who reported 35 cases of asymptomatic, unilateral round or ovoid, well defined, unilocular radiolucencies between the mandibular angle and the third molar. The defect generally believed to be caused by mandible developing around the lobe of the submandibular salivary gland during embryonic life.¹ Stafne bone cyst is generally encountered incidentally on routine plain radiograph and differential diagnosis includes odontogenic cyst and tumor like lesion.³ Occasionally, these defect are located in the anterior portion of the mandible.⁴⁻⁶ These are referred to as anterior lingual mandibular bone defects and are, at least in some cases, associated with the sublingual gland.⁵⁻⁸ Stafne first described Stafne cyst also known as bone cyst or defect, latent bone cyst or defect or lingual mandibular bone defect, and developmental submandibular gland defect of the mandible, in 1942.⁹

CASE REPORT

A 65 years old male patient reported to the department with chief complaint of inability to chew food due to missing teeth. On clinical examination patient was completely edentulous. Patient was subjected to Panoramic radiograph for study purpose with informed consent. Panoramic radiograph revealed a well defined radiolucency of size 2cm X 1cm seen anterior to the right angle of mandible and below the inferior alveolar canal (Figure 1). Margins of the lesion are well defined with corticated border that is more prominent on superior and anterior surface. The radiographic appearance of the lesion gives impression of Stafne bone cyst.



Figure 1: showing well defined radiolucency of size 2cm X 1cm seen anterior to the right angle of mandible

DISCUSSION

The stafne bone cavity is generally detected in patients in the 5th or 6th decade of life, although cases have been described in ages between 11 to 87 years.¹⁰⁻¹¹ Stafne Bone Defect is frequently located in the posterior lingual region of the mandible. Similar defect have also been described in the anterior region near the apical region of the premolar, associated with the sublingual gland and very rarely on the medial surface of the ramus, associated with parotid gland.¹²⁻¹³ Various theories have been proposed for the etiology of Stafne bone cyst. The exact pathogenesis is still obscure. Stafne suggested that the occurrence of lingual cavities is developmental, as the defect is occupied by cartilaginous tissue due to bone deposition deficiency.¹⁴ It has also been reported that pressure of the glandular tissue on the lingual cortex of the mandible causes a lingual bony depression.^{13,15} Some reports show that Stafne Bone

Defect results from benign fatty or vascular lesion.¹⁶ Lingual Mandibular Bone Defects occur in 0.3% Of adult and predominately in male patients. In some series all patients were male.¹

Stafne Bone Cyst is generally detected incidentally on routine radiographs and differential diagnosis include odontogenic cyst, in case Lingual Mandibular Bone Defect situated superiorly residual cyst and radicular cyst if teeth are present or recently extracted, fibrous dysplasia, brown tumor of hyperparathyroidism, ameloblastoma, basal cell nevus syndrome, giant cell tumor.⁹ Computerized Tomography (CT) currently considered as the complementary test of choice, has the great advantage of verifying the peripheral origin of lesion and the conservation of the lingual cortical, which are essential characteristics for discounting other pathologies such as apical or residual cyst, fibrous dysplasia, traumatic osseous cyst, among others. Add that CT permits to a certain extent, the identification of the tissue found within the cavity.^{10-11,17-18} Magnetic Resonance Imaging should be considered in order to identify the content of the cavity.³ Stafne bone cavity is asymptomatic radiolucent lesion of the lower jaw and generally seen incidentally during routine radiographic examinations. Diagnosis of this lesion is essential because of its similarity with other odontogenic pathologies.

Conflict of Interest: None

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