

STAFNE BONE CYST A CASE REPORT

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ABSTRACT

Stafne's bone cyst is an unique bony abnormality that mostly affects the mandibular lingual cortex. It is a lesion that has obvious radiographic diagnostic characteristics and is well-defined. In general, patients with stafne bone cysts do not typically exhibit any symptoms, Usually an x-ray panorama used during other dental operations reveals the fault unintentionally.¹

INTRODUCTION

Stafne bone cavities are pseudocysts of the mandible. Initially explained in 1942 by Edward C. Stafne. The range of the defect is 0.10% to 0.48%. These lesions develop between the fifth & sixth decade of life.¹ They are round or ovoid, range in size from 0.5 to 2 cm, and have a

4:1 male to female ratio³. Stafne bone defects are asymptomatic, only detected by routine radiography, below the inferior alveolar nerve canal.¹

They are unilateral, radiolucent, and very rarely bilateral.⁶ It is classified as a pseudocyst because it lacks a cystic epithelial lining. Latent/static/idiopathic bone cyst, cavity or defect, and developing submandibular gland defect are some of the other names for it.³

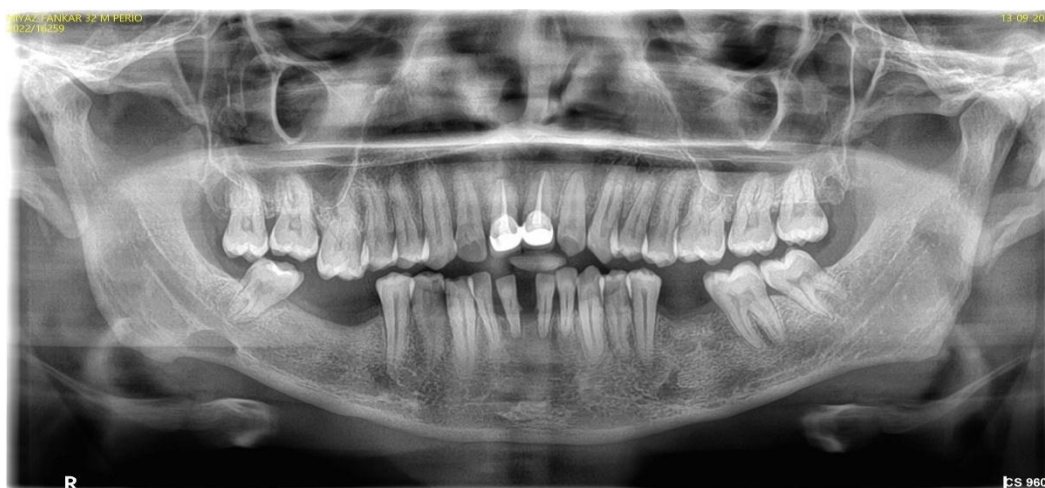
CASE REPORT:

A 37 year old male patient reported to the department of oral medicine & radiology, DY Patil University School of dentistry, Navimumbai, India with a chief complaint of missing lower right and left back tooth region. The patient medical history did not reveal any significant systemic abnormality.

Extraoral examination showed no facial asymmetry. Intraoral examination revealed missing teeth with respect to 36, 46, 47 & Grade 1 mobility with respect to 32, 42 & 47, Grade 2 mobility with respect to 31 & 41 & Calculus ++. Patient was advised panoramic radiograph for study purpose with informed consent. OPG reveals well defined radiolucency in the posterior lower border of the mandible in the right side below the mandibular nerve canal suggestive of pseudocyst due to the inferior portion of the submandibular gland shown in figure 1.

CBVI reveals well defined radiolucency in lower border of the mandible in the right posterior region extending till the lingual border suggestive of a cystic appearance due to housing of the submandibular gland in this region with no cortical bone expansion lying inferior to the right inferior alveolar nerve canal shown in figure 3.

Figure 1: Showing well defined radiolucency in the posterior lower border of the mandible in the right side below the mandibular nerve canal suggestive of pseudocyst due to the inferior portion of the submandibular gland.



DISCUSSION:

Generally, stafne bone cysts are regarded as a congenital anomaly. Lower jaw pseudocysts are stafne bone cysts. They are depressions in the mandibular lingual cortical bone.²³

It is believed that some salivary gland tissue becomes stuck in the growing jaw during mandibular growth.

Stafne bone cysts are asymptomatic and unintentionally discovered during a regular dental examination.

The stafne bone cyst appears unilocular on radiographs and is almost invariably located at the angle of the mandible below the inferior alveolar nerve. These distinct features make it possible to confidently diagnose stafne bone cysts based solely on clinical and radiographic evaluation. Therefore, radiographic follow-up is advised for stafne bone cyst therapy rather than surgery. OPG and CBCT are required in this case to diagnose the problem.

The differential diagnosis for a stafne bone cyst includes benign and malignant jaw lesions like an odontogenic cystic lesion, a non-ossifying fibroma, fibrous dysplasia, vascular malformation, ameloblastoma, basal cell nevus syndrome, giant cell tumour, or a metastasis from a primary malignant tumour.¹² For anatomical, as compared to pathogenic, stafne bone cysts, there is typically no need for surgical intervention. When the diagnosis is unclear or to lower the risk of fractures when the defect is a crucial size or changes in size over the course of follow-up periods, surgical management and biopsy can be done.²

CONCLUSION:

Stafne bone cysts are typically detected during regular radiological tests and normally do not require any active surgical treatment; However, if they are accompanied by pain and numbness, a surgical investigation may occasionally be necessary to rule out other pathological conditions.⁴⁵

Fig 2 : CBCT view



Fig 3: Sagittal view showing well defined radiolucency in Lower border of the mandible in the right posterior region extending till the lingual border suggestive of a cystic appearance due to housing of the submandibular gland in this region with no cortical bone expansion.

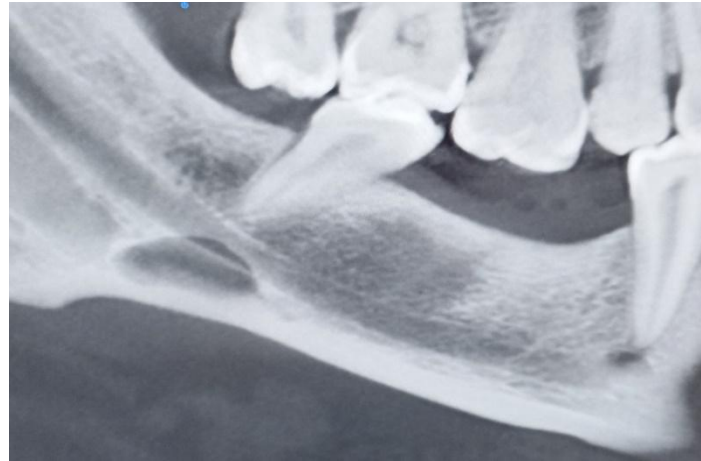


Figure 4: Coronal section showing concavity on lingual aspect of mandible without loss of lingual cortex.

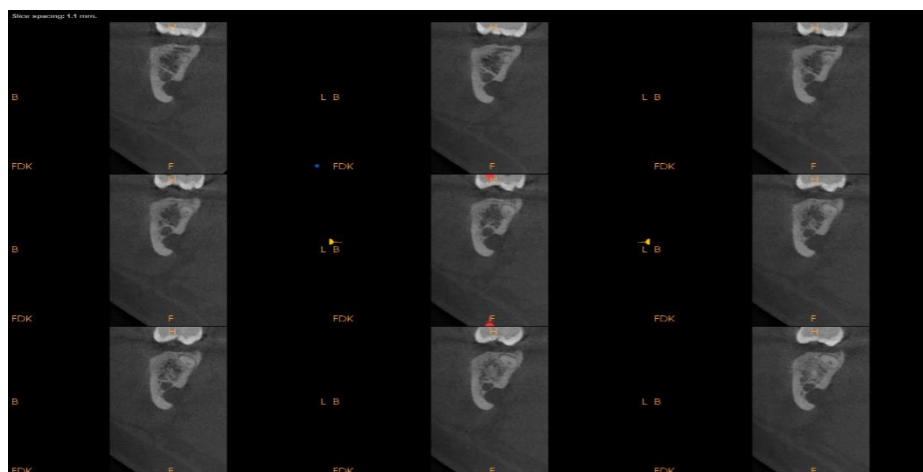
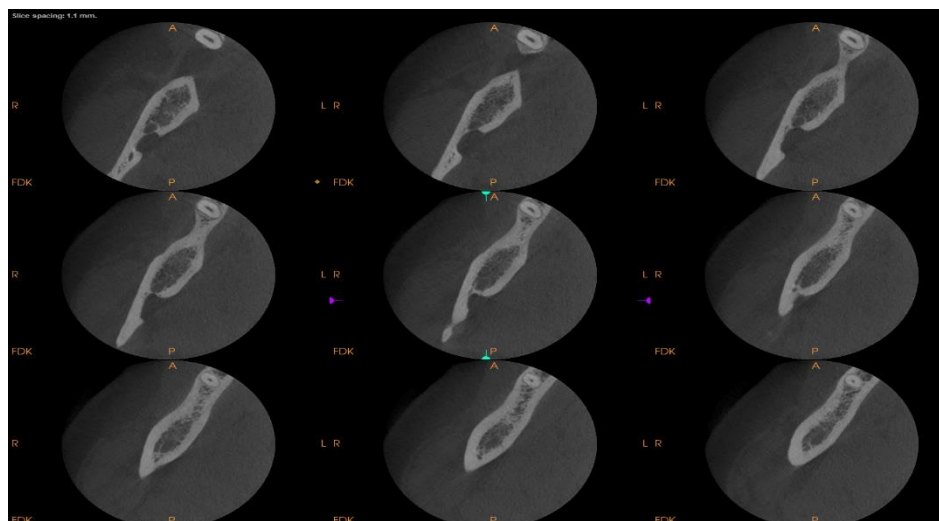


Figure 5: Axial section showing concavity on lingual aspect of mandible without loss of lingual cortex.



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