

Stafne's bone defect: an important finding in maxillofacial imaging

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Dear Editor:

Stafne's defect is a rare, asymptomatic jaw condition, also known as Stafne's bone cyst, Stafne's bone cavity, latent bone cyst, aberrant salivary gland defect, developmental bone defect of the mandible, idiopathic bone cavity and cortical mandible. Its etiology is uncertain; however, cases have been reported in which it occurs due to pressure from the adjacent salivary gland and in other cases due to a small connection with contiguous soft tissue that is not visualized on X-rays (1). The finding of this defect predominates in male patients between 50 and 70 years of age (2).

Radiographically, it is characterized by radiolucency, round or oval shape, unilocularity and sclerotic edges. It is classified into five types: type 0: limited to the lingual cortex; type 1: limited to the cancellous bone; type 2: reaches the buccal cortex; type 3: reaches the buccal cortex causing expansion; and type 4: without buccal cortex. This bony cavity is filled with soft glandular tissue, blood vessels, adipose and/or lymphoid tissue and nerve bundles (2-4).

The effects of Stafne's defect on adjacent structures are thinning of cancellous bone and resorption of the extended buccal cortex, according to its classification. At the same time, root resorption of contiguous teeth was reported (1).

Different imaging techniques are used for diagnosis, such as panoramic radiographs, computed tomography, cone beam computed tomography, magnetic resonance imaging (for optimal evaluation of soft tissue). Among the differential diagnoses, there are radiolucent lesions of the mandible, such as ameloblastoma, residual cyst, cyst or periapical lesions (2).

In conclusion, the identification of Stafne's defect is important, as it is considered a rare entity. In terms of imaging, it is like jaw cysts, which could lead to confusion in the diagnosis. Being a benign developmental bone defect, it does not cause any pathological changes, and surgical intervention is not necessary for treatment. However, clinical and radiographic controls are suggested every 1 or 2 years by means of a panoramic x-ray, as well as visits to the dentist (4, 5).

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