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Letter to Editor

A Mandibular Cavity Depicted in a MRI. Breaking the Myth of the Stafne Cyst

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Edward Stafne in the first middle of the 20th century described a series of cavities of the mandible, found during his radiologic examinations with intra-oral films. He had also performed a thorough follow-up, resulting to non-change pattern concerning the their size and from [1]. They have been named as pseudo-cysts, latent or static bone cavity, bone defect, lingual mandibular bone depression, or more usually as Stafne cyst (defect, cavity) [2]. The entrapped salivary gland during the development, ischemia and mechanical pressure caused by the adjacent anatomical entities with focal bone resorption compose the theory of their development which still remains unclear. They may contain normal salivary gland tissue, fat, lymphoid tissue, muscle, blood vessels, fibrous tissue, bundles of peripheral nerves and an ectopic parotid gland. They appear with a male to female ratio of 6:1 [3]. As an entity, its anatomical position have been reported posterior lingual, anterior lingual, buccal aspect of ascending ramus and lingual aspect of ascending ramus, classifying the cavity into 4 different variants [4]. In radiology, a rather complex set of examinations should be performed for a diagnosis to be reached. They appear as an incidental finding on routine panoramic radiographs, depicted as a unilocular round or oval shaped radiolucency. However, a wide cluster of conditions are involved in their deferential diagnosis, including malignancies, demanding further a computerized tomography (CT) or a cone beam CT (CBCT), and/or a magnetic resonance imaging (MRI) in the case of soft tissues inserted within the cavity [2-5]. Although researchers still use the term "cyst" to describe them [6], some others denying the definition [7,8]. These cyst-like bony voids lack of epithelial lining and fluid content. As a defect they are asymptomatic, cause no pain or inflammation, result no emergencies and maintain the same boundaries with no change at all. Our case (Figure 1), depicts a Stafne cavity, including only fat, while the bone presents smooth, sharp limits (especially in the panoramic x-ray). Can a defect with those characteristics be named as a cyst? We believe that this is not a case of pathology, but simple a variant in mandible anatomy, in need of neither a biopsy nor a surgical treatment. Anatomists may understand this concept when they detect them in dry bones examination, radiologists may diagnose only a cavity in films, while oral and maxillofacial surgeons are wrongfully still naming them as "cysts".

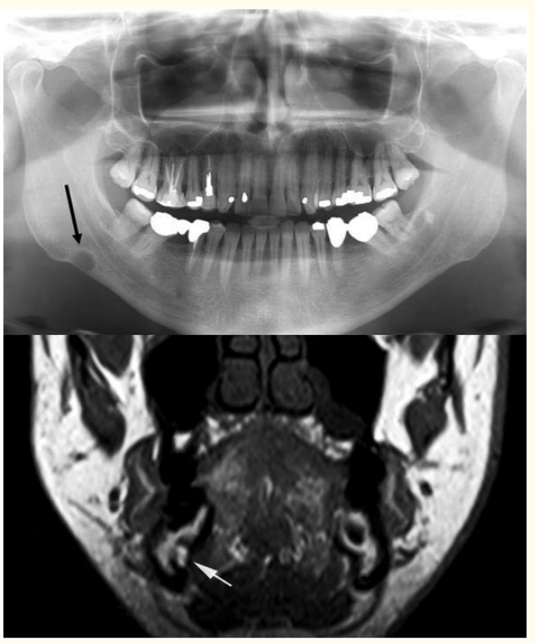

Figure 1: *Dental panoramic radiography demonstrating a Stafne defect (white arrow) in the right mandible, below the inferior alveolar nerve canal (top side). MRI, Coronal T1, weighted image which reveals a corticated defect (black arrow) on the lingual surface of the mandible, anterior to the right mandibular angle and below the alveolar canal, filled with fatty (bottom side).*

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