

# An incidentally discovered lacunar image of the mandible: diagnostic orientation

Rym Kammoun<sup>1</sup>, Imen Chaabani<sup>1</sup>, and Touhami Ben ALaya<sup>1</sup>

<sup>1</sup>University of Monastir Faculty of Dental Medicine of Monastir

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## Abstract

Stafne bone cavity belongs to the class of pseudocysts as a mandibular radiolucency image with well-defined borders. It is asymptomatic and incidentally discovered. CT scan is the best examination to identify characteristics and content of this image. This study aimed to highlight these radiological features to establish the correct diagnosis

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### Abstract:

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### Keywords :

Mandible; Radiography, Panoramic; Salivary Glands; Tomography, X-Ray Computed; Osteolysis.

A 62-year-old female patient presented with right mandibular pain related to the right first molar (46). Panoramic radiography revealed a well-limited lacunar image with a clear peripheral condensation border, located below the mandibular canal that was incidentally detected (Figure 1-A). At this stage, several diagnoses were possible, including keratocyst, ameloblastoma, and Stafne lacuna. A second-line mandibular computed tomography examination was performed. It showed a well-limited osteolysis involving both the spongy and the lingual cortical bone. The vestibular table was reduced without rupture (Figure 1-B). The mandibular canal was located below and medially to this osteolysis (Figure 1-B, 1-C), extending to the mandibular basilar border (Figure 1-C, 1-D). Narrow window sections with contrast injection revealed the presence of grease density tissue within the osteolysis, centered by tissue of glandular nature in communication with the submandibular gland (Figure 1-E, 1-F).

All these clinical and radiological features were in favor of Stafne bone cavity. It is a benign, asymptomatic, and rare bony depression of incidental finding, often found in the posterior region of the mandible<sup>1</sup>. It is due to an exaggerated depression caused by hyperplastic lobe of a salivary gland and classified according to the basis of its depth and content <sup>2</sup>.

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### Figure’s legend

**Figure 1:** (A) Panoramic radiography: lacunar image (white arrow) related to the mandibular canal (black arrow) and extending towards the basilar border. (B) Axial CT section: destruction of the lingual cortex (white arrow), thinning of the vestibular cortex (white arrowhead). (C) Coronal CT section: osteolysis extending superiorly and laterally, leading to thinning of the vestibular cortex and to lingual displacement of the mandibular canal. (D) Sagittal CT reconstruction: evolution of osteolysis below the mandibular canal to the basilar border. (E-F) Axial CT section and oblique reconstruction perpendicular to the mandibular body in a narrow window with contrast product: osteolysis of greasy nature (star) centered by an image of glandular density (black arrowhead) and communicating with the submandibular gland (SMG) by a canal (white dotted arrows).

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