A Synovial Cyst of the Temporomandibular Joint

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A 25-year-old woman without personal medical history complained of a unilateral preauricular pain, increased by temporomandibular joint (TMJ) mobilization, that had been evolving for a few months. She had no history of traumatic injury. Clinical examination revealed a tender right preauricular mass, and a reduced mouth opening, with a maximal opening of 33 mm. Oral examination revealed normal occlusion.

Magnetic resonance imaging (MRI) was performed and revealed a well-delimited and homogeneous cystic lesion, measured at 12 × 8 × 10 mm, with a T2-weighted hypersignal (Figure 1A), and a T1-weighted hyposignal, without enhancement after gadolinium injection (Figure 1B), in the right temporomandibular region. A surgical exploration found a cystic mass related to the TMJ (Figure 2). Histopathological examination confirmed the diagnosis of a synovial cyst.

A synovial cyst located in the TMJ is rare, and to date only 24 cases of synovial cyst of the TMJ have been reported in the literature. The main differential diagnosis is represented by the ganglion cyst and the final diagnostic is usually made on histological examination. Surgical excision is the main treatment, with good results. Recurrence rate seems to be low, without any recurrence reported in the literature, but persistent postoperative pain is possible. Intraarticular injection or aspiration has also been described, without success.

Figure 1. MRI showing a well-delimited and homogeneous cystic lesion (white arrow), with (A) a T2-weighted hypersignal, and (B) a T1-weighted hyposignal, without enhancement after gadolinium injection, appended to the temporomandibular joint (white arrowhead). MRI: magnetic resonance imaging.
REFERENCES


Figure 2. Surgical view after dissection of the synovial cyst (white arrow) related to the TMJ capsule (white arrowhead). TMJ: temporomandibular joint.