

Imaging Diagnosis of TMD

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Imaging of the TMJ is essential to complement the information obtained on clinical examination, especially in cases involving bone changes, suspected infection, failure of conservative treatment, and aggravating symptoms. Specialized diagnostic imaging, such as CT or MRI, should be considered in addition to plain radiology in patients with a history of trauma, severe dysfunction or bite changes, swelling in the TMJ region, and sensory or motor nerve abnormalities. However, indications for TMJ imaging are generally not applicable to adolescents who present with joint noise without other symptoms or who are asymptomatic prior to orthodontic treatment.

The purpose of TMJ imaging is to evaluate the relationship between the bony and soft tissues, to determine the extent and progression of the disease, and to evaluate the effectiveness of treatment. Since the TMJ is primarily evaluated on panoramic radiographs, I will explain how each part of the TMJ is projected on panoramic radiographs and examine various findings that can appear on TMD along with CT or MR images. In this presentation, we try to find out what changes can be observed in temporomandibular joint imaging at the time of onset of TMD symptoms and after treatment, and understand the discrepancies between clinical symptoms and radiographic images. In addition, various diseases that can be mistaken for TMD will be presented, and the main difference between TMD and TMD mimickers will be investigated.

When it comes to TMJ MRI, each imaging center has its own unique imaging protocols, which may lead to a lack of recognition of pathological changes in other structures adjacent to the TMJ. The importance of obtaining an axial image to detect TMD mimicking lesions, as well as a corrected sagittal image at opening and closing for disc positioning and soft tissue assessment of the TMJ, should not be overlooked when referring for TMJ MRI. Clinicians should make an effort to request the inclusion of an axial image when requesting TMJ MRI.

Profile

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