

# ROLE OF ULTRASONOGRAPHY IN ASSESSMENT OF TEMPOROMANDIBULAR JOINT INTERNAL DERANGEMENT IN COMPARISON WITH COMPUTERIZED TOMOGRAPHY AND CONVENTIONAL RADIOGRAPHY

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## ABSTRACT

Internal derangement is one the most common of disorders affecting TMJ and is considered one of the problems facing both the radiologist and surgeon regarding its diagnosis. Several modalities have been used to diagnose both bony and soft tissue abnormalities of the TMJ among which conventional radiography, C.T, ultrasonography, Arthrotomography and magnetic resonance image. From the results, It was found that 60% of cases indicated that the superiority of CT over conventional radiography in bony examination.

CT gives some promise for detection of internal derangement as it has high sensitivity for any density changes, presence of calcification of the disk & hyalinization. Although soft tissue window is not the best method to depict the disk but if the disk appears in CT, it will represent the exact shape and position of the disc of TMJ

Ultra sonography is non invasive, available non expansive and provide in sigh into joint dynamics. The relationship of CT and ultrasonography is high in examination of soft tissue agreement is 96%, this is because the advantage of dynamic ultrasonography in investigating the disc condyle relationship under repeated motion at respective mouth opening positions probably made the structures involved more clearly distinguishable.

## INTRODUCTION

Functional disorders of the TMJ are considered the main etiologic factors of varying neurological and myological disturbances in regions of the face, the neck, the ear, and the oral cavity. Internal derangement is defined as an abnormal relationship of the disk relative to the condyle, fossa, and the articular eminence. The disk is usually displaced anteriorly, but it may also sublux medially,

laterally or (rarely) posterior to the condyle. Internal derangement occurs in up to 28% of the adult population. It is three to five times more common in women than in me (Paesani et al., 1992).

Analysis of anatomic contours observed from radiographs can provide useful information about TMJ. Conventional radiography and tomography can furnish evidence of osseous disease unavailable from clinical findings. Newer technology

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