

**“EVALUATION OF ULTRASONOGRAPHY AND MAGNETIC
RESONANCE IMAGING IN THE DIAGNOSIS OF
TEMPOROMANDIBULAR JOINT INTERNAL DERANGEMENTS:
A COMPARITIVE STUDY”**

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*Dissertation submitted to the
Rajiv Gandhi University of Health Sciences, Karnataka,
Bangalore.*

*In partial fulfillment
Of the requirements for the degree of*

6-838

MASTER OF DENTAL SURGERY

In

ORAL MEDICINE AND RADIOLOGY

Under the guidance of

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**V.S. DENTAL COLLEGE & HOSPITAL
BANGALORE**

2008-2011

ABSTRACT

Background and objectives: A study was conducted in our institution with the aim of comparing the efficacy of Ultrasonography with Magnetic Resonance Imaging in diagnosing Internal Derangement of the Temporomandibular Joint.

Methodology: The study consisted of 20 patients (40 joints) who were clinically diagnosed as internal derangement of the TMJ, out of which 8 were female patients and 12 were male patients. The patients were subjected to ultrasound and magnetic resonance imaging of both the joints to confirm the diagnosis. The finding of ultrasound and MRI were compared with each other. The data obtained was statistically analyzed using sensitivity, specificity and kappa coefficient.

Results: A sensitivity of 100% and specificity of 86% was observed with ultrasound and MRI in the diagnosis of internal derangement of the TMJ in our study. A kappa value of 0.5816 was found with a statistically significant P value of < 0.001 .

Conclusions: Our study found that in diagnosing internal derangements of the TMJ, ultrasound is an effective tool to define the disk, its position and the presence or absence of internal derangements.

Key Words: Temporomandibular Joint Imaging; Internal Derangement; Magnetic Resonance Imaging; Ultrasonography.