

**TREATMENT OF TEMPOROMANDIBULAR DISORDERS  
WITH INTRAARTICULAR INJECTION OF SODIUM  
HYALURONATE |CLINICO-RADIOGRAPHIC-BIOCHEMICAL  
STUDY|**

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***ABSTRACT:***

Temporomandibular dysfunction has been considered as an abnormal condition that affects a wide range of population .This study was designed to assess the efficacy of intra-articular injection of sodium hyaluronate on the clinical signs and symptoms of patients with TMD .Fifteen patients )4 men, 11 women (of mean age 29.9y without radiographic evidences of arthritic changes or disc displacement changes were included in this study, after performing TMJ tomography and MRI sagittal scan .The patients were randomly allocated into 2 groups of unequal number, to detect arachidonic acid metabolites and cytokines, respectively, in their synovial fluid .The preauricular area was disinfected and anesthetized, then synovial fluid was collected . Sodium hyaluronate 1 ml )10 mg (was injected, and its effects on total amounts of arachidonic acid metabolites and cytokines and on clinical symptoms were measured . Results showed that; injection of sodium hyaluronate caused significant reduction in the mean amounts of leukotriene C<sub>4</sub>, 6 ketoprostaglandin F<sub>1</sub> α and prostaglandin F<sub>2</sub> α together with interleukin-I β and interleukin-6 .Similarly, the means of pain score and noise were significantly reduced, while the degree of mouth opening was significantly increased .These findings suggest that; inflammation plays a role in the pathogenesis of TMD and that injection of an anti-inflammatory substance may be useful .