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Comparative study of single needle versus double needles arthrocentesis using research diagnostic criteria for temporomandibular joint disorders (RDC/TMD)

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**Introduction:** The aim of this study was to compare the clinical outcome of single needle approach versus double needles in treating patients suffering temporomandibular disorders (TMD) using the research diagnostic criteria (RDC/TMD).

**Methods:** Twelve patients (9 females and 3 males, mean age 31.16 years) were included to the study. TMJs were divided into 2 groups randomly: double needle arthrocentesis (group A) and single needle arthrocentesis (group B). The study was carried on a double blind fashion, every patient received a full axis I RDC examination prior to the arthrocentesis procedure and in the follow up periods The data were collected and statistically compared using SPSS package for windows.

**Results:** Three months after the arthrocentesis procedures, regarding mouth opening, excursive movements, joint sound and pain score, there was no statistically significant difference between 2 groups; while for protrusive movements there was statistically significant difference between the two groups at period of 1 month (P-value 0.034), at 2 months (P-value 0.022) and at 3 months (P-value 0.021).

**Conclusion:** From this study, it is concluded that adequate results for treatment of internal derangement of TMJ were achieved with single and double needle arthrocentesis in the form of improved function and pain reduction. The adoption of a single-needle injection technique might have some advantages over the traditional 2-needle technique yet it remains a fertile ground for further trials and investigations. Arthrocentesis is an effective technique for eliminating the studied cytokines from the TMJ synovial fluid.

## **Biography**

Diaa E Mostafa is an Assistant Lecturer in the oral and maxillofacial surgery department of faculty of Dentistry at the University of Minia, Egypt, where he has been a Faculty Member since 2007. He has completed his MSc and Undergraduate studies at Minia University. His research interests lie in the area of temporomandibular joint disorders. In recent years and for his PhD research, he has focused on better techniques for arthroscopic management of TMJ. He has served on many conference and workshop program committees. He is an Instructor for a clinical part of oral surgery for undergraduate's topics in his department and Vice Director of cranio-maxillofacial surgery unit at Minia University Dental Hospital.

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