

## **Title:**

# **Value of Mesotherapy for Treatment of Chronic Low Back Pain: A Randomized Trial**

## **Abstract:**

Aim of the work: To evaluate the value of mesotherapy, either by traditional drugs or by bee venom, as a therapeutic modality for management of chronic low back pain and compare it versus conventional systemic administration of nonsteroidal anti-inflammatory drugs and corticosteroids for patients with chronic low back pain. Methods: A randomized controlled clinical trial with three parallel arms carried out at the Department of Rheumatology and Rehabilitation -Faculty of Medicine, Fayoum University in Egypt. The study was assessed and approved by the Faculty of Medicine Fayoum University Ethics Committee One hundred and twenty (120) patients (both sexes) aged 19– 65 years and suffering from back pain since more than 3 months and reported a current pain intensity >60 on a 100mm visual analogic scale. Patients are randomly allocated to be divided to three main groups: Group I: 40 patients received drug therapy according to the following protocol: ketoprofen 150 mg /day orally for 12 days + methylprednisolone (MP) intramuscularly 40 mg/day for the first 4 days, then 20mg/day for 3 days, then 20 mg/day at alternate days + esomeprazole 20 mg/die for 12 days. Group II: 40 patients received: 2% lidocaine (1 mL) + ketoprofen 100 mg (2 mL) + MP 40 mg (1 mL) at day 1 and 4, then 2% lidocaine (1 mL) + ketoprofen 100 mg (2mL) + MP 20 mg (0.5 mL) day 7, 10, and 13, five repeated injections. Group III: 40 patients received (0.5 mL) diluted purified bee venom + 2% lidocaine (0.5 mL) twice weekly for three weeks. Pain intensity and functional disability were assessed at baseline (T0), at the end of treatment (T1), and 6 months thereafter (T2) by using visual analogic scale (VAS) and Roland-Morris disability questionnaire (RMDQ). Results: In the three groups, VAS and RMDQ values were significantly reduced at the end of drug treatment and after 6 months, in comparison with baseline. there was no significant difference in mean basal VAS and RMDQ scores between three groups, at the end of treatment (T1) but mean VAS and RMDQ scores level in group II showed significant decrease than G I and G III (p value <0.05). At T3, the mean VAS and RMDQ scores showed further decrease in GII in comparison with GI and GIII. *Conclusions:* Mesotherapy by using conventional drugs; NSAIDs and corticosteroids or by bee venom is an effective and well-tolerated method for managing low back pain in the short-term, and may be a valid alternative to conventional therapy in the treatment of low back pain with corticosteroids and NSAIDs.