

## **البحث الخامس : بحث مشترك و منشور دوليا**

**Title: Preliminary study reveals the efficiency of platelet rich plasma injection over physiotherapy for chronic plantar fasciitis treatment**

### **Abstract:**

Plantar Fasciitis (PF) is considered as one of the most prominent causes of heel pain in adults. Regenerative medicine has been developed as one of the therapeutic strategies for treatment of chronic tendinopathy using Platelet-Rich Plasma (PRP). So, the present study was intended to solve the controversial role of PRP injection as anti-inflammatory or as regenerative therapy for treatment of chronic tendinopathy. Aim of the work: To evaluate the effect of Platelet Rich Plasma (PRP) injections under Musculoskeletal Ultrasonography (MSUS) guidance in the management of patient's chronic plantar fasciitis in comparison to physiotherapy. Methods: The present study involved twenty plantar fasciitis patients with 3 months failed of traditional treatment. One of them received local steroid injection during follow up, so excluded from the study. The studied patients were classified into two main groups as follows: PRP group (10 patients) and physiotherapy group (9 patients). All patients were evaluated using the American Orthopedic Foot Association Society (AOFAS) score and MSUS was done before and 4 weeks after treatment. Results: The AOFAS increased significantly among the PRP group by 36% increase versus 13% in the physiotherapy group after treatment. Tendon echogenicity was significantly changed in 70% of cases after PRP injection ( $p$ -value $<0.05$ ). Tendon thickness was significantly decreased in the PRP group compared to physiotherapy group after treatment ( $p$ -value=0.04). Conclusions: PRP significantly can be used as therapy of choice among plantar fasciitis patients.