Role of Platelet Rich Plasma in treatment of Plantar Fasciitis and Achilles Tendinitis

Thesis

Submitted for partial fulfillment of Master Degree in Rheumatology and Rehabilitation

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Summary and conclusion

Plantar fasciitis is a common cause of heel pain, caused by deterioration of the plantar fascia, which occurs as a result of repetitive stress. It is a common foot problem which cause disability to the patient.

Achilles tendinopathy is generally caused by overuse of the affected limb, so it is more common among athletes. It is a degenerative, not an inflammatory, condition. Most patients respond to conservative measures if the condition is recognized early.

Musculoskeletal ultrasound is a very valuable tool for confirming the diagnosis and increasing the accuracy of local injection. It is inexpensive, precise, noninvasive and available.

There are many conventional therapy options like <u>ice</u>, <u>cold compression therapy</u>, wearing heel pads, NSAID, local steroid injection, extracorporeal shock wave therapy and platelet rich plasma (PRP). PRP focus on increasing the inflammation response rather than suppressing it. The basis of PRP technology is to provoke the release of growth factors in an attempt to start the healing of a chronic injury. Increased concentrations of autologous platelets yield high concentrations of growth factors, subsequently leading to intensified healing of soft tissue on a cellular level.

There are many studies in the literature that suggested that PRP is a promising therapy for different types of tendinopathy including plantar fasciitis and Achilles tendinitis.

The aim of this study was to properly evaluate the efficacy of ultrasound guided injection of PRP for the treatment of chronic plantar fasciitis and Achilles tendinitis. We studied 24 patients with plantar fasciitis and Achilles tendinitis, four

patients with Achilles tendinitis and 19 patients with plantar fasciitis. One of them received local steroid injection during her follow up, so she was excluded from the study. They were randomly divided them into 2 groups, group 1 received PRP and group 2 received physiotherapy in the form of therapeutic ultrasound. We concluded that PRP was more effective than physiotherapy for treatment of resistant plantar fasciitis and Achilles tendinitis after failed medical treatment. From our point of view PRP is a safe and valid therapeutic approach. Ultrasound has a great role as regarding diagnosis and guided injection.