# THE POSSIBLE HEALING EFFECT OF PROLOTHERAPY IN TREATMENT OF KNEE OSTEOARTHRITIS

Protocol of a thesis submitted for partial fulfillment of the requirements of the MD degree in Physical Medicine, Rheumatology and Rehabilitation

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# بسم الله الرحمن الرحيم

فَنْعَلَى اللَّهُ الْمُلِكُ الْحَقِّ وَلَا تَعْجَلَ بِالْقُرْءَانِ مِن قَبْلِ أَن يُقْضَى اللَّهُ اللَّهُ الْمُلِكُ الْحَقِّ وَلَا تَعْجَلَ بِالْقُرْءَانِ مِن قَبْلِ أَن يُقْضَى إِلْكُ اللَّهُ اللّلَهُ اللَّهُ اللللَّهُ الللَّهُ اللَّهُ اللَّهُ الللَّهُ اللَّهُ الللَّهُ اللَّهُ الللَّهُ الللَّهُ اللَّهُ الللَّهُ الللَّهُ الللَّهُ اللللّ

صدق الله العظيم

{ سورة طه } الجزء السادس عشر

#### The Healing Effects of Prolotherapy in Treatment of Knee Osteoarthritis

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#### **ABSTRACT**

**PURPOSE** Knee Osteoarthritis is one of the most common causes of musculoskeletal pain and disability affecting millions of people worldwide ,with no solitary effective line of treatment. Prolotherapy is a proposed injection therapy for chronic musculoskeletal pain. The aim of our study is to assess the efficacy of prolotherapy for knee osteoarthritis.

**METHODS** One hundred and twenty eight adults with knee OA, adjusted for gender and age, were enrolled in the study. One hundred and four were subjected to dextrose prolotherapy (group "I") and twenty four received physiotherapy treatment (group "II"). Post-procedure application of hot packs and use of acetaminophen medication in order to decrease the post injections pain. Patients were assessed clinically, functionally and radiologically at the beginning and at the end of the study (12 months).

**RESULTS** Group "I" patients reported at month 12 a clinical improvement, knee pain improvement (VAS), knee function improvement (WOMAC scores) and radiological improvement (plain x-rays and musculoskeletal ultrasound), compared with baseline status ( $P \le 0.001$ ) and compared to group "II".

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**CONCLUSIONS** Prolotherapy resulted in clinically meaningful sustained improvement, knee function improvement as well as a radiological improvement for knee osteoarthritis compared with physiotherapy.

**Key Words** Prolotherapy, knee osteoarthritis, ligaments and tendons, neural prolotherapy, musculoskeletal ultrasound, knee plain x-rays.



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