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بالرسالة صفحات
لم ترد بالأصل

PLANTER PRESSURE DISTRIBUTION IN FLAT FOOT SUBJECTS : IMPLEMENTATION FOR TREATMENT

Thesis

Submitted to Basic Science Department in Partial Fulfillment for the Requirements of the Master Degree in Physical Therapy

By

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Abstract

Planter pressure distribution in flat foot subjects : implementation for treatment. Marwa Shafiek Mustafa; Supervisors, Prof. Dr. Fatma Sedik Amin[*] , Ass. Prof. Dr. Ragia Mohamed Kamel[*], Ass. Prof. Dr. Soha Talaat Hamed[**].

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Background: Distribution of body weight through the foot depends on the shape of the foot arches. **Purpose:** To investigate the changes in plantar pressure distribution of flexible second-degree flat feet subjects compared to normal subjects. **Subjects:** 30 subjects (12 males and 18 females), their age ranged from 18-35 years old. Subjects were assigned randomly into two equal groups. Group A (The study group) included fifteen subjects (6 males - 9 females) with bilateral flexible second-degree flat feet with mean age of 23.46 ± 4.18 years , weight 65.26 ± 8.43 kg, height 165.93 ± 8.95 cm and body mass index (BMI) 23.59± 0.80 kg/m^2. Group B (The control group) included fifteen normal subjects (6 males – 9 females) with mean age of 23.60 ± 4.06 years, weight 65.60 ± 6.83 kg, height 166.46 ± 8.64 cm and BMI 23.61 ± 0.73 kg/m^2 . **Method:** Feet assessment using lateral weight bearing radiographs were performed bilaterally for each subject in both groups to measure the talar first metatarsal angle, then the foot scan plate system was used to measure the plantar pressure distribution for every subject under six areas of the foot during static condition. **Results:** There was a significance increase in pressure distribution under the heel and medial metatarsal head in group A than group B and there was no significant difference in pressure distribution under central and lateral metatarsal heads, mid foot and first toe between both groups. **Conclusion:** This study concluded that subjects with bilateral flexible second-degree flat feet have high pressure under the heel and medial metatarsal head than normal subjects.

Key words: Foot mechanics, Flat foot, Flat foot treatment, Plantar pressure distribution.

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