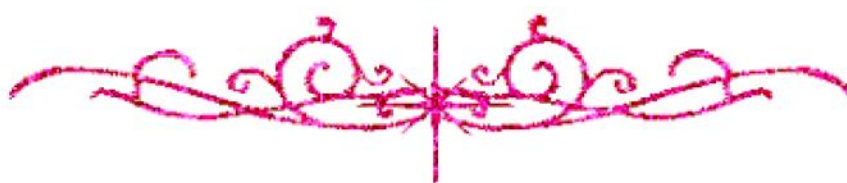


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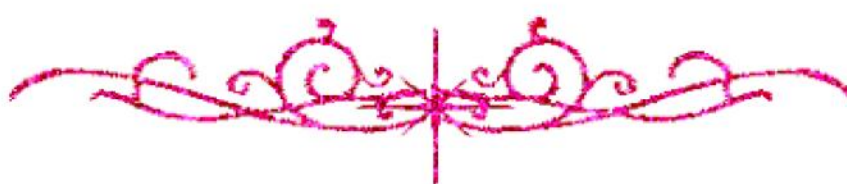
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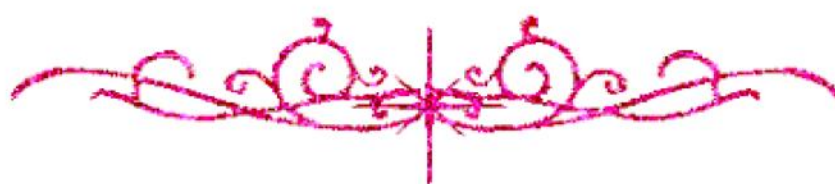
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**بالرسالة صفحات
لم ترد بالأصل**



B17725

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

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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/m². 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/m². **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.



Contents

Page

Chapter (I)

Introduction.....	1
Statement of the problem.....	3
Purpose of the study.....	3
Justification of the study.....	4
Delimitations and Limitations.....	5
Basic Assumption.....	6
Hypothesis.....	6
Definition of terms.....	7

Chapter (II)

Literature Review.....	8
1) Functional anatomy of the foot.....	8
A- Stability and mechanics of the foot.....	9
Hindfoot stability and mechanics.....	9
Midfoot stability and mechanics.....	11
Forefoot stability and mechanics.....	12
B- Arches of the foot.....	13
1. The medial longitudinal arch.....	15
2. The lateral longitudinal arch.....	25
3. The anterior arch and the transverse curvature of the foot.....	29
C- Plantar fascia (Plantar aponeurosis).....	31
D- Foot arches under effect of the load.....	33
2) Flat foot.....	35
A- Classification of flat foot.....	36
1. Congenital flat foot.....	36
2. Acquired flat foot.....	38
3. Infantile flat foot.....	39
B- Causes of flat foot.....	39
1. Causes of flexible flat foot.....	39
2. Causes of rigid flat foot.....	41
3. Causes of acquired flat foot.....	42
C- Pathomechanics of flat foot.....	48
D- Complications of flat foot.....	48
E- Assessment of flat foot.....	54
F- Treatment of flat foot.....	57
1. Conservative treatment.....	57
2. Operative treatment.....	63

3) Plantar pressure.....	65
A- Pressure.....	65
B- Weight distribution through the foot.....	66
C- Importance of plantar pressure assessment.....	70
D- Factors affecting on plantar pressure distribution.....	71
4) Flat foot and plantar pressure distribution.....	74
5) Summary of literature.....	76
 Chapter (III)	
Materials and Methods.....	78
Selection of subjects.....	78
Design of the study.....	79
Instrumentation.....	79
Procedures.....	83
Data collection	89
Statistical analysis.....	90
 Chapter (IV)	
Analysis of Results.....	91
 Chapter (V)	
Discussion.....	104
 Chapter (VI)	
Summary, Findings, Conclusion, Implementations and Recommendations.....	110
References.....	113
Appendices	
Arabic Summary	

