Abstract

Influence of flat foot on ankle proprioception, Mayada Ashraf Mahmoud; Supervisors, Prof. Dr. Omaima Mohamed Aly Kattabeia, Dr. Abeer Abd El Rahman Mohamed, Department of Basic Science Faculty of Physical Therapy, Cairo University, Ass. Prof. Dr. Soha Talaat Hamed, Department of Radio-Diagnosis, Faculty of Medicine, Cairo University, 2010(Master Degree).

Background: Proprioceptive information plays an important role in joint stabilization, body co-ordination and proper function. Flat foot deformity may alter proprioceptive ability that may affect joint function and may predispose to joint injury .**The purpose:** of this study was to investigate the influence of flat foot on ankle proprioception. **Subjects:** 30 males and females subjects with age ranged from 18-35 years old were assigned randomly into two equal groups: Group A (the study group) included 15 subjects(11females,4males) with unilateral second degree flat foot with mean age of (29.13 ± 2.74 years), weight (59.13 ± 6.8 Kg), height (164.8 ± 5.73 cm) and BMI(22.41±1.93Kg/m² and group B (the control group) included 15 normal subjects(12females,3males) with mean age of (30.33 ± 1.63 years), weight (58.93 ± 6.01 Kg), height (162.4 ± 6.88 cm) and BMI(21.92±1.81Kg/m²). **Method:** lateral weight bearing radiographs were performed bilaterally for each subject in both groups to determine the degree of flat foot by measuring the talus first metatarsal angle. Active repositioning test of ankle planter flexion was measured by Biodex isokinetic dynamometer to assess proprioception joint position sense of ankle joint. **Results:** the study indicated that, there was no significant difference in ankle proprioception between both groups as p= 0.8 . **Conclusion:** The study concluded that unilateral flexible second-degree flat foot does not have an effect on ankle proprioception.
Key words: Flat foot, proprioception.