

THE CORRELATION BETWEEN THE WALK AND THE PLANTAR PRESSURE IN PUBIS OSTEITIS

Marius Turnea, Mariana Rotariu, Andrei-Cătălin Ionițe, Dragos Arotaritei, Mihai Ilea

University of Medicine and Pharmacy „Grigore T. Popa”, Iași, România

tmarius_ro@yahoo.com, rotariu29@yahoo.com, catalin.ionite@yahoo.com, dragos_ro@yahoo.com, ileamihai2004@yahoo.com

Abstract

Introduction: Osteitis of the pubis is a syndrome that affects both performance athletes and the large mass of the population. Non-invasive, radiation-free postural analysis can come to the aid of radiological imaging, due to measurements made using the Global Postural System and the specific software. Recent studies show an increase in pubis osteitis syndrome among performance athletes because of the increase in intensity and frequency of training and matches, hardness of the playing surface, repetitive strokes, etc. The shortening of the time to restore the body causes the musculo-arthro-kinetic chain of the pubic symphysis to be overstressed, which leads to a deeper analysis of the correlations existing between the lower limbs.

Materials and methods: The study is conducted on a group of 35 patients, 30 of whom are healthy and 5 affected by osteitis. The existence of an imbalance in the center of gravity distribution helps to establish and localize structural changes that may occur in the lower limbs. This is possible by tracking the oscillations that the patient presents during the 20-second test. With the help of the postural-test the data on the duration of the double step and the pressure exerted at the plantar level at each step were taken for both healthy and affected patients. Plantar analysis has provided the opportunity to measure the contact area with the soil and to determine precisely whether the patient presents at the time of testing alterations to the plantar level, as well as the correlations between these values and the changes in walking. The obtained data were statistically interpreted, resulting in significant differences between the two lots.

Results: The statistical processing revealed that once the pathology is installed, changes occur both in the duration and in the pressure exerted at the plantar level for each step. Changes in the duration of the step increased for the healthy limb and decreased for the affected limb, closely correlated with the pressure exerted at the plantar level.

Conclusions: Once installed, pubis osteitis produces both statistically significant changes in both the duration of the step and the pressure exerted at the plantar level. There has been an increase in the duration of the step in the affected member in the mirror with an increase in the pressure exerted at the planting wall of the healthy limb. Based on the data obtained from the statistical analysis, a customized kinesiotherapy and medical recovery program can be developed.

Key words: pubis osteitis, postural-test, statistics, football players.