

عنوان مقاله:

The effect of isometric external rotation of hip on electromyographic activity of the Gluteus Medius and Tensor fascia lata muscles in pelvic drop movement with and without Genovalgom

محل انتشار:

کنفرانس بین المللی تحلیل حرکت (سال: 1399)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Roghayeh Jalil Piran

Farideh Babakhani

Ramin Baloghi

خلاصه مقاله:

Abstract: Introduction & Objective: Genovalgum is one of the most common deformities of the knee joint in women. In this deformity, due to changes in the mechanical axis of the lower limb, changes occur in the function of the hip abductor muscles. Knee valgus is associated with decreased strength of the hip abductor muscles. Weakness of the gluteus Medius muscle causes hyperactivity of the Tensor Fascia lata muscle. The aim of the present study was to investigate the effect of isometric external rotation of hip on electromyographic activity of the Gluteus Medius and Tensor fascia Lata in movement of the pelvic drop individuals with and without Genovalgum. Methods: In this study, 30 participants; Genovalgum (15 person with mean age of 21.7 ± 2.12 years, an average height of 164.2 ± 2.91 cm and an average weight of 58 ± 1.9 kg), and healthy (15 person with mean age was 21.3 ± 1.87 years and the mean height was 164.33 ± 2.49 cm and the average weight was 58 ± 1.58 kg) Participated. Individuals performed pelvic drop movement in three angles (neutral, 15 degrees internal rotation, 20 degrees external rotation) with and without isometric external rotation of hip. Electromyographic information of muscles was recorded by electromyogram device. Intragroup information analysis was performed using repeated measures analysis of variance and intergroup information was performed using independent t-test. Results: The results showed that there was a significant difference in the activity of the gluteus medius muscle before loading in two groups of genovalgum ($p = 0.001$) and healthy ($p = 0.000$). That muscle activity in both groups in the neutral state was higher than the other two states. After loading isometric external rotation of hip in both groups, no significant difference was observed in the activity of the gluteus medius between the three angles. The activity of the Tensor Fascia Lata muscle before loading in the genovalgum group showed a significant difference in the neutral angle and 15 degrees of internal rotation ($p = 0.005$), which had the lowest activity in the angle of 15 degrees of internal rotation. In the healthy group, after loading, there was no significant difference in Tensor Fascia Lata muscle activity in three angles ($p = 0.063$). Also, in the Genovalgum group, after loading, a significant difference in Tensor Fascia Late muscle activity was observed between the neutral angles and 20 degrees of external rotation ($p = 0.007$), Which had the highest activity in the neutral angle and the ... lowest activity in 20 degrees of external rotation. In the comparison between groups b

کلمات کلیدی:

pelvic Drop, isometric external rotation, electromyography, Genovalgom

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1183082>



