E-Poster

EP-707

Relationship Between Balance Abilities, Muscle Strength and Hip Muscles Fatigue Among Overweight/Obese Women

Topic: Specific Target Groups (Children, Women, Elderly, Athletes, Musicians, Refugees, Ethnic Groups, Workers, and Others)

Manal Souissi[1], Mehrzia Ameni Khezami[2], Sarah Ben Arbia[2], Emna Bahlouli[2], Leila Ghidaoui[3], Imen Miri[3], Ines Aloulou[3], Fatma Zahra Ben Salah[3], Catherine Dziri[3], Chaima Hannachi[4], Nabil Hammami[4], Anissa Bouassida[4]

[1]B Department of Physical and Rehabilitation Medicine, [1]National Institute of Orthopedy Mohamed Kassab, La Manouba, Tunisia [2]Tunis El Manar University, Faculty of Medicine of Tunis, Tunisia, Manouba, Tunisia
[2]B Department of Physical and Rehabilitation Medicine, [1]National Institute of Orthopedy Mohamed Kassab, La Manouba, Tunisia [2]Tunis El Manar University, Faculty of Medicine of Tunis, Tunisia, Tunisia
[3]A Department of Physical and Rehabilitation Medicine, [1]National Institute of Orthopedy Mohamed Kassab, La Manouba, Tunisia [2]Tunis El Manar University, Faculty of Medicine of Tunis, Tunisia, Tunisia
[4]High Institute of Sport and Physical Education of Kef, University of Jendouba, Kef, Tunisia, Tunisia

BACKGROUND

Hip flexor and extensor muscles are important for postural stability and locomotion abilities. The objective of the present study was to evaluate the effect of hip flexor muscles fatigue on balance performances and muscle strength.

METHODS

Overweight/obese healthy women aged between 18 and 45 were included. We assessed static balance with the single limb stance test (SLS), flexor Hip Peak torque (FHPT) and extensor Hip Peak torque (EHPT) in concentric contraction before and after a muscle fatigue protocol performed with isokinetic dynamometer on the hip.

RESULTS

Our study included 18 patients, with a mean age of 32.35 ± 10.35 years. The mean BMI was 32.21 ± 3.45. The balance performances and muscle strength were significantly declined after fatigue isokinetic protocole ($p < 0.05$). Flexor Hip Peak torque were more affected than EHPT.

CONCLUSION

Hip muscles fatigue affects negatively balance and muscle strength among overweight/obese healthy women.

Statement of Disclosures

None

Corresponding Author:
Manal Souissi
B Department of Physical and Rehabilitation Medicine, [1]National Institute of Orthopedy Mohamed Kassab, La Manouba, Tunisia [2]Tunis El Manar University, Faculty of Medicine of Tunis, Tunisia, Manouba, Tunisia
Email: manel.souissi@etudiant-fmt.utm.tn

Doi: 10.5606/archisprm.2026.EP-707