ORAL PRESENTATIONS
OP11

The Effect of High Arch and Flat Foot on Dynamic Balance among College Students

Nur Amalina Adnan[1], Azira Iqlima Razali[1], Santibuana Abd Rahman[1], Nurhaida Rosley[1], Maisarah Rafek[1]

[1] Faculty of Pharmacy and Health Sciences, Universiti Kuala Lumpur, Royal College of Medicine Perak, 30450 Ipoh, Perak, Malaysia

ABSTRACT

Background and Objectives: Foot arch plays an important role in maintaining dynamic balance. Dynamic balance involves stabilizing the body when the body is moving on a stable surface. However, studies which focus on the effect of high arch and flat foot on dynamic balance remains limited. Thus, this study aimed to assess the effect of high arch and flat foot on dynamic balance among college students. **Methods:** A cross-sectional study was employed involving 50 students from a college in Perak, Malaysia (mean age± SD = 22.28±1.68). The participants were recruited using convenience sampling technique. The participants were then divided into two groups of foot arches based on the navicular drop test measured: high arch (≤4 mm) and flat foot (≥ 10mm). Dynamic balance was measured using the star excursion balance test (SEBT). The data were analysed using SPSS version 23. **Results:** The results revealed that there was a significant difference between high arch and flat foot groups in posteromedial direction (p=0.009) and posterior direction of SEBT (p=0.002). However, there was no significant difference in other directions of SEBT scores between high arch and flat foot groups (p>0.05). **Conclusion:** Foot types affecting dynamic balance in certain directions, suggesting that college students need to be aware of their foot types to prevent balance problem in future. Both high arch and flat foot problems can be corrected, and physiotherapists play an important role in these.

Keywords: High Arch; Flat Foot; Dynamic Balance; Star Excursion Balance Test

Corresponding Author:
Azira Iqlima Razali
Email: azira.iqlima@unikl.edu.my
Tel: +60133336445