CO0288
Measurement properties of the Star Excursion Balance Test in the anterior cruciate ligament-deficient subjects – preliminary analysis
Lech Dobija1, Emmanuel Coudreyre, Bruno Pereira2
1 CHU de Clermont-Ferrand, Médecine Physique et Réadaptation, Clermont-Ferrand, France
2 Éducation, Sport, Santé, LAMHESS EA 6312, Nice, France
* Corresponding author.
E-mail address: lech.dobija@gmail.com (L. Dobija)

Objective The Star Excursion Balance Test (SEBT) has been lately used in the anterior cruciate ligament (ACL) deficient patients but its measurement properties are still unknown in this population. The purpose of this study was to estimate: the intrarater reliability, agreement, the construct validity of the SEBT, versus the one leg hop test (OLHT) and the self-reported function.

Methods and procedures The ACL-deficient patients (n = 18) performed three trials of the SEBT in the anterior (A), posteromedial (PM) and posterolateral (PL) direction and three trials of the OLHT bilaterally. The self-reported function was evaluated with the Lysholm score and the International Knee Documentation Form (IKDC 2000).

Results The intrarater reliability was excellent for the SEBT (ICC: 0.94–0.99) with acceptable agreement (MDC: 1.39–6.00). Significant correlations (P < 0.05) were found for the injured limb: SEBT-PM vs. Lysholm score (r = 0.56), SEBT composite score vs. Lysholm score (r = 0.50), SEBT-A vs. OLHT (r = −0.56) and for the non-injured limb: SEBT-PM and OLHT (r = 0.64), SEBT-PM vs. Lysholm score (r = 0.54), SEBT-PL vs. Lysholm score (r = 0.53), SEBT composite score vs. Lysholm score (r = 0.57).

Discussion/Conclusion The excellent reliability and agreement of the SEBT are in concordance with the results obtained in healthy subjects, indicating that the SEBT can be reliably employed in ACL-deficient patients. Moderate positives correlations found between the SEBT parameters and the Lysholm score reveal good construct validity of the SEBT. However, moderate negative correlation found between SEBT-A and OLHT suggest that these two parameters seem evaluate different construct.

Keywords Validity; Star Excursion Balance Test; Anterior cruciate ligament

Disclosure of interest The authors declare that they have no competing interest.

http://dx.doi.org/10.1016/j.rehab.2016.07.043