ABSTRACT

Background: Poor flexibility is considered a risk factor for the hamstring strain injury, and the active straight leg raise (ASLR) test proposed as a part of the Functional Movement Screen™ (FMS™) has been used to assess athletes hamstring flexibility. However, the accuracy of this screening test remains undescribed.

Purpose: To examine the accuracy of the FMS™ ASLR test for assessment of hamstring flexibility in soccer players.

Study design: Cross-sectional study.

Methods: One-hundred and one male soccer players (age, 21 ± 3 years; height, 179 ± 7 cm; weight, 75 ± 9 kg) were bilaterally evaluated. All players performed a gold standard test for hamstring flexibility evaluation: the passive straight leg raise (PSLR) test measured using a gravitational inclinometer. All players also performed the ASLR test and were scored using the criteria proposed by the FMS™.

Results: Of the 202 lower limbs evaluated, 17.82% scored a 1 on the ASLR [mean passive flexibility: 80.44 ± 14.69° (55°-110°)], 50.99% scored a 2 on the ASLR [mean passive flexibility = 84.60 ± 10.59° (56°-115°)], and 31.18% scored a 3 on the ASLR [mean passive flexibility = 92.32 ± 11.53° (70°-120°)]. Limbs with FMS™ score of 3 presented significantly higher values for passive flexibility than limbs with scores of 1 and 2 (p < 0.05), but there was no significant difference between limbs with scores of 1 and 2 (p > 0.05).

Conclusion: The score obtained in the FMS™ ASLR test does not satisfactorily stratify the level of hamstring flexibility in soccer players.

Level of evidence: 3a

Key words: Hamstring, injury prevention, posterior thigh, range of motion, soccer