ABSTRACT

**Purpose/Background:** Strength asymmetries are related to knee injuries and such injuries are frequently observed among runners. The purpose of this study was to examine whether long-distance runners have symmetric performance during knee isokinetic testing at two angular velocities.

**Methods:** Twenty-three healthy and well-trained male long-distance runners performed open-chain isokinetic trials for assessment of concentric quadriceps and hamstrings contractions at velocities of 60°·s⁻¹ and 240°·s⁻¹. Data were compared between the lower limbs at different velocities.

**Results:** Peak torque and total work were similar between the limbs. Asymmetry was observed for knee flexor power at 240°·s⁻¹ (237 ± 45 W and 205 ± 53 W, in the preferred and non-preferred limb, respectively). Asymmetry indexes for flexor power were different between the velocities tested (13.1% and 2.21% for 240°·s⁻¹ and 60°·s⁻¹, respectively).

**Conclusion:** A limb asymmetry was observed among runners for knee flexor power, mainly at higher angular velocities (240°·s⁻¹). In addition, H/Q ratios were observed to be contraction velocity dependent.

**Level of Evidence:** 3

**Keywords:** Concentric isokinetics, dynamometer, flexor to extensor torque ratio, peak torque

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