

Core Stabilization Training After Anterior Cruciate Ligament Reconstruction

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Objectives: The aim of this study was to compare the effects of core stabilization exercises and conventional rehabilitation exercises after anterior cruciate ligament reconstruction in terms of knee joint laxity, knee muscle strength, postural stability and functional tests.

Methods: Twenty eight patients reconstructed with hamstring tendon were included. Thirteen patients evaluated after a conventional rehabilitation and fifteen after a core stabilization programme. Single-limb postural stability assessment, isokinetic knee muscle strength test, instrumented ligament laxity test, functional hop tests were done to both groups after 16th week. Single-limb postural stability was assessed with stabilometer in both eyes open and eyes-closed conditions. Healthy legs were evaluated as internal controls.

Results: Knee flexor and extensor strength indices were not different between groups ($p>.05$). H/Q strength ratio was different at 180 °/s ($p<.05$). Knee laxity was not different between groups ($p<.05$). There was no significant difference in hop distance and hop index between groups ($p>.05$). Conventional training group had deficit in overall stability score in eyes closed condition ($p>.05$), but core stabilization group did not have any postural stability deficit ($p>.05$).

Conclusion: Better H/Q strength ratio was seen in core stabilization group. Core stabilization exercises improved postural stability more than classic rehabilitation.

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