Introduction

The noncontact lateral ankle sprain is the most common injury in indoor and court sports. Here, it is predominantly described as occurring via a mechanism that typically incites from an initial “bad landing” – with the foot in an inverted position. Descriptions of the actual foot landing posture prior to injury have, however, only been documented in few quantitative cases, or simply retrospectively reported by the incurring athletes during prospective trials. Therefore, we aimed to determine the initial foot landing posture using video-recorded injuries.

Materials and Methods

In this explorative, observational, non-consecutive, case-series study, two independent, blinded, analysts systematically retrieved and analysed 585 video-recorded lateral ankle sprain injuries.

Results

445 injuries remained after 79 duplicates, and 61 videos with no clear view or non-lateral joint excursion, had been excluded. Of these, 113 (25%) were noncontact and 32 (7%) were indirect-contact injuries. Among the 113 noncontact injuries, 18 (16%) were characterised by initial contact on the lateral side, while 95 (84%) had a medial- or flat landing posture prior to injury. Among the 32 indirect-contact injuries, 9 (28%) injuries had initial contact on the lateral side, while 23 (72%) had a medial- or flat landing posture.

Conclusion

Contrary to our expectations, most noncontact injuries were not caused by an initial “bad landing” with the foot in an initially inverted position. It is important to concede that the noncontact lateral ankle sprain can indeed occur and progress irrespective of initial foot landing posture. Joint stiffness might be more important than joint position.

Results

137 patients were included (47% women) with a mean age of 24.8±8.4 years. There were non-significant and weak correlations between relative strength for all PROs. Significant and weak correlations between absolute strength in the Nordbord with the KOOS activity of Daily Living Function (9.4, 95% CI 1.20 to 8.22; p = 0.010) than CON.

Conclusion

In ACLR participants with persistent hamstrings muscle deficiency, 12 weeks of supervised progressive strength training was superior compared to low-intensity home based exercises (usual care) for improving knee flexor muscle strength and some patient reported outcomes.

Background

There is a need for better understanding of how knee flexor strength influence patient-reported outcomes (PROs) after anterior cruciate ligament (ACL) reconstruction. Therefore, the aim was to investigate the relationship between the eccentric NordBord test and the seated concentric Biodex test, with PROs, during the first year of rehabilitation after ACL reconstruction with a hamstring tendon (HT) autograft.

Methods

Data of patients with an index ACL reconstruction with an HT-autograft participating in a rehabilitation registry were screened for inclusion. Outcomes of interest were the correlation between absolute (N/kg or N/m/kg) and relative (limb symmetry index) knee flexor strength measured in the NordBord and Biodex with the results of PROs. The significance level was set at p<0.05 and Pearson’s correlation coefficient was used.

Results

The Bigliani classification had interrater and intrarater reliability that was lower than the other three classification methods.

Conclusion

There is a need for better understanding of how knee flexor strength influence patient-reported outcomes (PROs) after anterior cruciate ligament (ACL) reconstruction. Therefore, the aim was to investigate the relationship between the eccentric NordBord test and the seated concentric Biodex test, with PROs, during the first year of rehabilitation after ACL reconstruction with a hamstring tendon (HT) autograft.

Methods

Data of patients with an index ACL reconstruction with an HT-autograft participating in a rehabilitation registry were screened for inclusion. Outcomes of interest were the correlation between absolute (N/kg or N/m/kg) and relative (limb symmetry index) knee flexor strength measured in the NordBord and Biodex with the results of PROs. The significance level was set at p<0.05 and Pearson’s correlation coefficient was used.

Results

The Bigliani classification had interrater and intrarater reliability that was lower than the other three classification methods.