predict elongation at one year. A cut off of 7% elongation at baseline would have caught 77% of patients who ended up with an elongation above 10% at 1 year.

15 ACUTE ACHILLES TENDON RUPTURE – THE INFLUENCE OF GENDER, AGE AND COMORBIDITY ON TREATMENT OUTCOME

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Introduction Studies suggest that women have worse treatment outcome than men after acute Achilles tendon rupture (ATR). Few studies have assessed the influence of age and comorbidity on treatment outcome after ATR. The aim of the study was to investigate if gender, age and comorbidity affect patient reported outcome following ATR.

Materials and methods The study was performed as a registry study in the Danish Achilles tendon Database. The endpoints were the Achilles tendon rupture score (ATRS) at 4 months, 1 year and 2 years after injury. Variables of interest were gender, age, diabetes, hypertension, rheumatic disease, smoking and previous Achilles tendon disorder.

Results Data were collected from April 2012 to March 2018. 1524 patients participated at 4 months, 1277 at 1 year and 899 at 2 years. Women had statistically significantly lower ATRS at 4 months (mean difference, [confidence interval], p-value) (4.8, [1.78;7.78], $p<0.01$) and 1 year (9.9, [4.3;15.5], $p<0.01$), but not after 2 years. Patients with hypertension (7.6, [1.4;13.8], $p=0.02$) and non-operatively treated patients with rheumatic disease (14.8, [0.4;29.2], $p=0.04$) had lower ATRS at 1 year. Age showed a weak correlation to ATRS at 1 year ($r=0.12$; $p<0.01$).

Conclusion Women scored statistically significantly less than men in ATRS at 4 months and 1 year after ATR. The difference was half the clinically relevant difference at 4 months and peaked at 1 year where it equaled the clinically relevant difference. Hypertension and rheumatic disease led to statistically significantly decreased ATRS. Age did not have clinical relevant influence on ATRS.

16 RELATIONSHIPS BETWEEN A MULTIDIRECTIONAL REACTIVE AGILITY TEST, FUNCTIONAL PERFORMANCE AND PATIENT-REPORTED OUTCOME MEASURES 6 MONTHS AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION

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Introduction Return-to-sport testing after anterior cruciate ligament (ACL) reconstruction traditionally occurs during pre-planned activities. The aim of this study was to investigate the relationships between a novel multidirectional reactive agility test, functional performance and patient-reported outcome measures in athletes after ACL reconstruction.

Materials and methods Twenty-eight ACL-reconstructed athletes (24 males, 4 females; 24.6 ± 4.4 years; 6 months postoperative), participated in the study. All athletes underwent an evaluation including a novel multidirectional reactive agility test (tested with Smartgoals, a light-based reactive training system to measure the time to complete a task), functional performance tests: 1) two hop tests (single-leg hop for distance, triple hop for distance), 2) the Y-balance test conducted with eyes closed and patient-reported outcome measures (ACL-Return to Sports after Injury (ACL-RSI) scale, Knee Self-Efficacy Scale (K-SES), International Knee Documentation Committee (IKDC) subjective knee form). Spearman correlation coefficients were calculated between the outcomes on the multidirectional reactive agility test, and the functional performance and patient-reported outcome measures.

Results The time to complete the multidirectional reactive agility test was significantly ($p<0.05$) negatively correlated with absolute hop test distances ($r=-0.52$ to -0.53), hop tests limb symmetry indices ($r=-0.41$ to -0.49), posteromedial ($r=-0.64$) and posterolateral ($r=-0.61$) reach distances on the Y-balance test, and K-SES future ($r=-0.39$), ACL-RSI ($r=-0.39$) and IKDC scores ($r=-0.44$).

Conclusion Faster reactive agility was significantly correlated with better functional performance and patient-reported outcome measures. These results suggest to consider implementing multidirectional reactive agility testing within the continuum of the return-to-sport decision-making process in athletes after ACL reconstruction.

17 SUBCLASSIFICATION OF RECREATIONAL RUNNERS WITH A RUNNING-RELATED INJURY BASED ON RUNNING KINEMATICS MEASURED WITH TWO-DIMENSIONAL VIDEO ANALYSIS

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Introduction The aim of this study was to explore whether homogeneous subgroups could be classified within the running kinematics of a group of recreational runners with a running-related injury (RRI).

Materials and methods Fifty-three recreational runners (15 males, 38 females) with an RRI ran on a treadmill at preferred speed. Digital videos were recorded in the frontal and sagittal plane with two iPads. Outcome measures included foot and tibia inclination at initial contact, and hip adduction and knee flexion during midstance. All angles were manually