

2011) cohort included a population-based sample of 504 adolescents aged 15–19 years with knee pain. This study aims to describe the preliminary findings from selected outcomes after 10-years.

**Materials and Methods** This population-based cohort study included the following outcomes at the 10 year follow-up: Knee injury and Osteoarthritis Outcome Score (KOOS), pain intensity, pain frequency, other pain locations, health-related quality of life, weekly sports participation, physical activity (International Physical Activity Questionnaire), sleep quality, healthcare consultations, diagnoses, and treatments or knee pain, pain-killer usage, and impact on the choice of job/career.

**Results** 53.8% of participants with knee pain at baseline have responded by 12/10/2022; (n=271, mean age=28.1±1.2 years, BMI=25.4±5.0 kg/m<sup>2</sup>, 71% women). Final results are expected in 2023. 38.0% experienced knee pain during the last week, with 33% reporting pain at least several times per week. Average KOOS Sport/recreation scores were 61±22, and KOOS QoL were 61±20 for those who continued to experience knee pain, and 86±15 and 84±15, respectively, for those recovered from knee pain. 60.0% with ongoing knee pain report difficulties sleeping.

**Conclusion** Preliminary findings from this first prospective population-based study examining the 10-year prognosis of knee pain from adolescence into adulthood indicate that knee pain persists after 10-years in nearly 40% of adolescents and is associated with very low KOOS scores compared to those recovered from knee pain.

## 95 DELAYED LOADING FOLLOWING REPAIR OF RUPTURED ACHILLES TENDON – A RANDOMIZED CONTROLLED TRIAL

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**Introduction** The optimal rehabilitation following Achilles tendon rupture is still missing. It has been suggested that preventing tendon elongation during rehabilitation improves the clinical outcome, which leads to the purpose of this study; investigating if delayed loading following surgical treated Achilles tendon rupture influences the clinical outcome, muscle and tendon structure at one year.

**Material and Methods** Single-blinded prospective randomized controlled trial.

Group A (n=24); standard treatment with partial weight-bearing from week 3, full weight-bearing from week 7, and a bracing time of 6 weeks. Group B (n=24) with no partial weight-bearing until week 7, full weight-bearing from week 13, and a bracing time of 12 weeks. Tendon and muscle morphology were investigated with MRI and ultrasound at 1 week, 3, 6 and 12 months.

**Results** Primary outcome was heel-rise height deficit on the injured side relative to the uninjured side at one-year follow-

up. Mean diff. A = 2.2 cm, B= 2.1 cm, p= 0.72. No difference was found between the two groups regarding the primary and the following secondary outcomes. An elongation of the free tendon was already seen at 1 week (17.8 mm. p< 0.0001) and remained at 12 months (21.3 mm). Fascicle length of the gastrocnemius medialis muscle was reduced by 4.0 mm p<0.001 after 1 year. The mean Achilles Tendon Total Rupture Score was 65.9 at 1 year. The remaining secondary outcomes are being processed.

**Conclusion** Delaying the loading did not improve the heel-rise performance one year after Achilles tendon repair compared to standard treatment.

## 98 PATIENT-REPORTED, CLINICAL AND RADIOLOGICAL FACTORS ASSOCIATED WITH THE RESULT AFTER NON-SURGICAL MANAGEMENT OF ACUTE AC JOINT DISLOCATIONS

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**Background** The treatment of Rockwood type III/V acromioclavicular(AC) joint dislocations is debated. The objective of this prospective cohort study was to investigate the association between demographical, clinical, patient-reported and radiological variables at baseline/6w with the result after 3m, 6m and 1y.

**Methods** Inclusion criteria were patients aged 18–60 with acute AC joint dislocation and >50% superior displacement of the clavicle. Patients were treated non-surgically with 3m of home-based training and the option of delayed surgical intervention.

The primary outcome was the Western Ontario Shoulder Instability Index(WOSI). Secondary outcome was surgery yes/no. Patients were evaluated at baseline and 6w, 3m, 6m and 1y after the injury. Demographical, clinical, patient-reported and radiological variables were investigated for association with the outcomes. A model to identify patients at risk of surgery was suggested.

**Results** Ninety-five patients with Rockwood type III/V AC joint dislocation were included. Pre-injury participation in overhead/collision sports and reduced range of motion (ROM) at baseline were associated with reduced WOSI and increased risk of surgery. At 6w, reduced ROM, reduced WOSI and increased SPADI were associated with the outcomes. Radiological measurements were not associated with the result.

At 6w, all patients eventually requiring surgery could be detected with a sensitivity of 100% and a specificity of 94% based on a SPADI score>30 and a ROM<=140 degrees in flexion/abduction.

**Conclusion** ROM was the only factor consistently associated with both WOSI and risk of surgery. Six weeks after the injury, patients in need of surgery could be detected based on ROM and SPADI.