iso kinetic muscle strength assessment, hand grip strength and gait speed had predictive values for sarcopenia.

Conclusions: We found that patients with sarcopenic OA were older, weaker, less powerful, undernourished, and restricted in their level of physical activity in the study in which we identified sarcopenia as approximately 12% in patients with osteoarthritis. Among the methods of determining sarcopenia, ultrasound becomes prominent with its practical, cheap and easily accessible features. We think that our results will increase the awareness of the presence of sarcopenia in OA patients.

REFERENCES:

Disclosure of Interest: None declared

Results: 20% of participants had bone signal and/or erosion at PTE. Cross-sectionally, presence of PTE abnormalities were associated with greater intensity of pain while going up and down stairs (β=0.22; 95% CI: 0.03, 0.41), greater risk of having a femoral BML (RR=1.46 (1.22, 1.90)), greater lateral tibial bone area (β=25.95 (1.00, 50.91), smaller IPPFP area (β=0.26 (-0.46, –0.05)), and a worse tibial cartilage defects cross-sectionally (RR=1.70 (1.16, 2.47), after adjustment of demographic and structural confounders. Longitudinally, PTE abnormalities at baseline predicted an increased risk of deleterious changes in tibial BML size (RR=1.52 (1.12, 2.05)) but not clinical symptoms, and other structural changes over 10.7 years.

Conclusions: Patellar tendon enthesis abnormalities are common in the elderly. The presence of cross-sectional but not longitudinal associations suggests they commonly co-exist with other knee structural abnormalities, but that they are not a major player in symptom development or structural changes, excepting tibial BMLs.

REFERENCES:

Abstract SAT0578 – Table 1. Baseline features of the patients of knee Osteoarthritis and healthy controls

SAT0578

PATELLAR TENDON ENTHESIS ABNORMALITIES AND THEIR ASSOCIATION WITH KNEE PAIN AND STRUCTURAL ABNORMALITIES IN OLDER ADULTS
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Background: The patellar tendon works together with the quadriceps tendon to enable knee flexion and straightening. Its attachment site (enthesis) is at risk of microdamage and degeneration. Recent studies suggest that enthesis abnormalities are associated with development of osteoarthritis. 1, 2 However, no studies have assessed the presence of patellar enthesis abnormalities in older adults and its association with osteoarthritis outcomes.

Objectives: To describe the associations of patellar tendon enthesis abnormalities (PTE) and RA antibodies with knee pain, physical function limitations, osteoarthritic structural abnormalities cross-sectionally and longitudinally over 10.7 years.

Methods: PTE abnormalities were defined as presence of abnormal bone signal and/or erosion. They were measured on T2-weighted fat suppressed fast spin echo MR images at baseline in 961 community-dwelling older adults and followed for 10.7 years. Knee pain and physical function limitation score were assessed using WOMAC. Bone marrow lesions (BMLs), cartilage volume and defects, tibial bone area, and infrapatellar fat pad (IPFP) area were assessed using validated methods. Associations were assessed using hurdle, log binomial, linear, and mixed models, after adjusting for confounders.

Results: 20% of participants had bone signal and/or erosion at PTE. Cross-sectionally, presence of PTE abnormalities were associated with greater intensity of pain while going up and down stairs (β=0.22; 95% CI: 0.03, 0.41), greater risk of having a femoral BML (RR=1.46 (1.22, 1.90)), greater lateral tibial bone area (β=25.95 (1.00, 50.91), smaller IPPFP area (β=0.26 (-0.46, –0.05)), and a worse tibial cartilage defects cross-sectionally (RR=1.70 (1.16, 2.47), after adjustment of demographic and structural confounders. Longitudinally, PTE abnormalities at baseline predicted an increased risk of deleterious changes in tibial BML size (RR=1.52 (1.12, 2.05)) but not clinical symptoms, and other structural changes over 10.7 years.

Conclusions: Patellar tendon enthesis abnormalities are common in the elderly. The presence of cross-sectional but not longitudinal associations suggests they commonly co-exist with other knee structural abnormalities, but that they are not a major player in symptom development or structural changes, excepting tibial BMLs.

REFERENCES:

Disclosure of Interest: None declared
Conclusions: The prevalence of autoantibodies is similar in HOA patients and healthy controls. Moreover, these autoantibodies are not associated with erosive disease, structural damage or inflammation in HOA patients, indicating that another mechanism is driving erosive disease.

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SAT0580

ASSOCIATION OF CHILDHOOD AND ADULTHOOD ABDOMINAL OBESITY MEASURES WITH KNEE CARTILAGE THICKNESS, CARTILAGE VOLUME AND BONE AREA IN YOUNG ADULTS

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Background: Adiposity is associated with increased risk of knee osteoarthritis (OA); cartilage thickness, cartilage volume and subchondral bone area in young adults. However, there are no studies describing the effects of adiposity during early life on knee cartilage and bone morphology in adulthood.

Objectives: To describe the longitudinal associations between adiposity measures in childhood and adulthood and knee cartilage thickness, cartilage volume and subchondral bone area in young adults.

Methods: 186 participants from the Australian Schools Health and Fitness Survey of 1985 (aged 7–15 years) were followed up 25 years later (aged 31–40 years). Childhood measures (weight, height, waist circumference and hip circumference) were collected in 1985, and corresponding adulthood measures were collected during 2004–2006. Body mass index (BMI) and waist-hip ratio (WHR) were calculated. Participants underwent knee magnetic resonance imaging (MRI) during 2008–2010, and cartilage thickness, cartilage volume and subchondral bone area were measured using a quantitative approach (Chondrometrics 3.0, Germany). Multivariable linear regressions were used to examine the above associations.

Results: Among 186 participants (48.4% females), 7.6% were overweight in adulthood, and 42.1% in adulthood. There were no significant associations between childhood adiposity measures and adulthood knee cartilage and bone morphological measures; the same applied to adulthood BMI and overweight.

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Among 186 participants (48.4% females), 7.6% were overweight in adulthood, and 42.1% in adulthood. There were no significant associations between childhood adiposity measures and adulthood knee cartilage and bone morphological measures; the same applied to adulthood BMI and overweight.

Conclusions: Childhood adiposity measures did not predict adulthood knee cartilage and bone morphological measures. However, adulthood WHR, but not BMI or overweight status, was negatively associated with cartilage thickness, cartilage volume and subchondral bone area, suggesting central obesity may affect knee structures in young adults.

Disclosure of Interest: None declared

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SAT0581

PREDICTIVE FACTORS OF RESPONSE TO A SINGLE INJECTION OF MANNITOL-MODIFIED CROSS-LINKED HYALURONIC ACID (HANOX-M-XL) IN PATIENTS WITH TRAPEZIOMETACARPAL OSTEOARTHRITIS. RESULTS OF A MULTICENTRE PROSPECTIVE OPEN-LABEL PILOT STUDY (INSTINCT TRIAL)

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Background: Viscosupplementation is likely effective to alleviate pain and improve function in patients suffering from rhizarthrosis. However no study has been focused on the predictors of efficacy of the treatment.

Objectives: To search predictive factors of success or failure 3 months after a single intra-articular injection of a mannitol-modified hyaluronic acid (HA) visco-supplement, in patients suffering from trapeziometacarpal (TMC) osteoarthritis (OA).

Methods: Patients with symptomatic TMC OA were included in a 3 month prospective multicentre open-label trial. To be included in the study patients must have symptomatic TMC OA, not adequately relieved by analgesics/NSAIDs therapy and/or by the use of a thumb splint. Before treatment all patients must have had plain radiographs with the Kapandji incidences, for the Deli radiological grade assessment. (1 to 4). Primary endpoints were the variation between injection day 0, and day 90 (D90) of the thumb pain measured on 11 point-Likert scale (0 to 10) and the patient’s self-assessment of efficacy (0 to 3). Treatment consisted in a single injection of 0.6 to 1 ml of HANOX-M-XL, a viscosupplementation made of a cross-linked HA of high molecular weight, from biofermentative origin, combined with mannitol. All injections were performed under fluoroscopic or ultrasound guidance. Predictive factors of pain decrease were studied in univariate and multivariable analysis. All statistical tests were carried out two tailed at the 5% level of significance.

Results: 122 patients (76% females, mean age 60, mean disease duration 36 months) were included and 120 (98%) were assessed at 3 months. 23% of the TMC OA were grade 1 according to Deli classification, 36.8% grade 2, 36.8% grade 3 and 3.5% grade 4. At D0, the average (SD) pain level was 6.5±1.6 without significant difference between Deli groups (p=0.21). At day 90, pain decreased from 6.5±1.6 to 3.9±2.5 (Difference –2.7±2.5; –42%; p<0.0001) without significant difference depending on the Deli grade (p=0.055), despite a seemingly smaller number of responders in stage 2 patients. The average analgesic consumption decreased in more than one out of two patients. In univariate analysis, the clinical response was significantly worse in patients taking NSAIDs at baseline (p=0.012), but this difference no longer reached the significance threshold in the multivariable analysis. In multivariate analysis no predictor of response was identified. There was no safety issue. All AEs (11%) were transient increase of pain during or following HA administration and resolved without sequel within 1 to 7 days.

Conclusions: This study, of the largest cohort of patients treated with viscosupplementation in TMC OA, suggests that a single course of HANOX-M-XL injection is effective in relieving pain, without safety concern. Interestingly patients with the more advanced stages of OA seemed to benefit the treatment as well as those with less advanced OA.

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