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

Abstract SAT0577 – Table 1. Baseline features of the patients of knee Osteoarthritis and healthy controls

	Group 1	Group 2	Group 3	p
Age	67.08±2.02 (64-69) ^{a,c}	60.31±4.71 (50-70)	59.76±5.16 (52-69)	<0.001*
Body mass index	23.24±3.34 (18.4-29.3) ^{a,c}	32.82±5.44 (20.8-61.6)	29.22±3.20 (22.6-35.9)	<0.001
Mid-Upper Arm Circumference	22.17±4.00 (18-32) ^{a,c}	33.37±5.04 (21-57)	32.18±4.33 (26-43)	<0.001
Calf circumference	31.92±2.68 (25-35) ^{a,c}	40.52±6.30 (32-63)	40.85±6.46 (32-57)	<0.001
Gait speed	0.93±0.1 (0.82-1.12) ^{a,c}	0.61±0.18 (0.36-1.5)	0.6±0.14 (0.36-0.9)	<0.001
Hand grip strength (right)	13.58±2.94 (7-17) ^{a,c}	20.69±5.38 (8-38)	21.94±5.72 (12-38)	<0.001

mean±standard deviation

a A statistically significant difference was found between the post-hoc bilateral comparative "sarcopenic" group (p < 0.017)

b A statistically significant difference was found between the post-hoc bilateral comparative "non sarcopenic" group (p < 0.017)

c A statistically significant difference was found between the post-hoc bilateral comparative "healthy control" group (p < 0.017)

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.

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SAT0578

PATELLAR TENDON ENTHESIS ABNORMALITIES AND THEIR ASSOCIATION WITH KNEE PAIN AND STRUCTURAL ABNORMALITIES IN OLDER ADULTS

S.M. Mattap¹, D. Aitken¹, K. Willis¹, A. Halliday², C. Ding¹, W. Han¹, F. Cicuttini³, G. Jones¹, L. Laslett¹. ¹Menzies Research Institute for Medical Research, University of Tasmania; ²Department Of Medical Imaging, Royal Hobart Hospital, Hobart; ³Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Australia

Background: The patellar tendon works together with the quadriceps tendon to enable knee flexion and straightening. Its attachment site (enthesis) is at risk of micro damage 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 (PTE) abnormalities visible on magnetic resonance (MR) images; and 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 bone 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 ($\beta=0.22$ (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 ($\beta=25.95$ (1.00, 50.91)), smaller IPFP area ($\beta=-0.26$ (-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 be a major player in symptom development or structural changes, excepting tibial BMLs.

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SAT0579

PRESENCE OF AUTOANTIBODIES IN EROSIIVE HAND OSTEOARTHRITIS AND ASSOCIATION WITH CLINICAL PRESENTATION

M.A. van Delft¹, S. Van Beest¹, M. Kloppenburg^{1,2}, L.A. Trouw^{1,3}, A. Ioan-Facsinay¹. ¹Rheumatology; ²Clinical Epidemiology; ³Immunohematology and Bloodtransfusion, Leiden University Medical Center, Leiden, Netherlands

Background: One of the most prevalent clinical phenotype of osteoarthritis (OA) is hand OA (HOA), which in some patients can evolve to erosive HOA. In erosive HOA central erosions and subchondral destruction are seen, and imaging studies have indicated that in erosive HOA hand joints display more inflammatory signs than in non-erosive HOA.

Autoantibodies directed against post-translationally modified proteins, such as citrullinated (ACPA) and carbamylated (anti-CarP antibodies) proteins, are a hallmark of rheumatoid arthritis (RA), and are associated with more severe joint damage and inflammation. Interestingly, these antibodies are present in a small subset of SLE patients as well, in which they associate with bone erosions. This suggests the possible involvement of autoantibodies in inflammation and joint damage in other conditions than RA. Therefore, we hypothesised that autoantibodies are present in HOA and associate with erosive disease.

Objectives: To investigate whether three RA-associated antibodies, Rheumatoid Factor (RF), ACPA and anti-CarP antibodies, are present in hand OA and associate with erosive OA.

Methods: Anti-CarP IgG, ACPA IgG and RF IgM were measured by ELISA in baseline sera of HOA patients from 3 cohorts: HOSTAS (n=510, mean age 61.0 years, 85.7% women, 27.2% EOA), ECHO (n=47, mean age 63.4 years, 89.4% women) and EHOA (n=23, mean age 57.1 years, 73.9% women), and in sera of healthy controls (HC; n=196, mean age 44.1 years, 51.0% women). The prevalence of autoantibodies was compared between HOA and HC and between erosive and non-erosive HOA. In HOSTAS, hand radiographs were scored (Kellgren-Lawrence, OARS osteophyte and joint space narrowing scores) and C-reactive protein (CRP) levels, representing inflammation, were assessed. Groups were compared using non-parametric tests.

Results: In both ECHO and EHOA cohorts, only one patient was positive for RF IgM and none were positive for ACPA IgG. In all three cohorts, a low prevalence of anti-CarP IgG was detected and this was not different between HOA patients and HC (6.6% vs 3.6%, p=0.12). Moreover, in HOSTAS, the prevalence of all tested autoantibodies was low and not significantly different from HC (anti-CarP 7.1% vs 3.6%, p=0.08; ACPA 0.8% vs 1.5%, p=0.37; RF 6.1% vs 4.1%, p=0.30). Likewise, no difference was found between erosive and non-erosive HOA (anti-CarP 7.2% vs 7.1%, p=0.94; ACPA 0.7% vs 0.8%, p=0.92; RF 4.3% vs 6.5%, p=0.36). Radiographic damage and CRP levels were similar in anti-CarP positive vs negative, and RF positive vs negative HOSTAS patients.