Table 1. Demographic, Clinical and Laboratory Features of Patients (n=49)

Female gender, n (%)	35 (71.4)
Mean age at diagnosis, years (mean±SD)	12.5±3.3
Mean age at the time of inclusion, years (mean±SD)	17.7±2.6
Duration of illness, years (median/IQR)	5.7 (3.0-7.0) years
Active system involvement at study, n (%)	
Renal	14 (28.5)
Skin	11 (22.4)
Musculoskeletal	9 (18.3)
Hematologic	9 (18.3)
Neurologic	1 (2.0)
Serositis	1 (2.0)
Laboratory findings (median/minimum-maximum)	
Hemoglobin, gr/dl	12.7 (7.3-18.3)
WBC, /mm ³	6.900 (2.600-26.200)
Platelet, /mm ³	252.000 (39.000-529.000)
Erythrocyte sedimentation rate, mm/hour	10 (1-71)
C-reactive protein, mg/dl	0.1 (0-21.1)
Complement 3, mg/dl	87.6 (25.4-186.0)
Complement 4, mg/dl	15.3 (0-45.8)
Anti-ds DNA, IU/ml	12.8 (0-741.7)
SLEDAI score (mean±SD)	4.69±6.69

Conclusion: Our data supports that Galectin 9 and IL-2R α are good markers for disease activity in childhood SLE. We need larger series to evaluate differences between disease clusters in SLE. We failed to show a significant correlation with checkpoint proteins and SLEDAI except for PDL1.

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The aftermath of metabolic imbalance in OA

OP0196

CIRCULATING LEVEL OF IL-6 IS ASSOCIATED WITH 10.7-YEAR KNEE CARTILAGE VOLUME LOSS AND WORSE PAIN TRAJECTORY

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Background: There is growing evidence that inflammation plays a critical role in osteoarthritis (OA) progression and its symptoms evolution. OA pain is heterogeneous and there are distinct subgroups within OA pain patients. Recently, we identified three homogeneous subgroups following distinct pain trajectories in which metabolic mechanism may be involved. Whether circulating inflammatory markers are associated with long-term knee structural changes on MRI, and whether the association between inflammatory markers and the trajectories we identified differs remain to be clarified.

Objectives: To examine whether inflammatory markers are associated with 10.7-year knee structural changes including knee cartilage volume (CV) and bone

marrow lesions (BMLs), and to assess the associations between inflammatory markers and different pain trajectories.

Methods: This study was conducted as part of a population-based older adult (mean age 63 years, 51% of females) cohort study with 1,099, 875, 768 and 563 participants attending at baseline, and 2.6-, 5.1- and 10.7-year follow-ups. Circulating levels of interleukin (IL)-6, tumour necrosis factor alpha (TNF- α) and high sensitivity C-reactive protein (CRP) were measured at baseline in 193 randomly selected participants. T1-weighted or T2-weighted MRI of the right knee was performed to measure CV and BMLs at baseline and 10.7-year. X-ray was performed to assess radiographic knee osteoarthritis (ROA). The Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) pain questionnaire was used to measure knee pain at all four visits. Data on demographic, psychological, lifestyle and comorbidities were also collected. Pain trajectories was previously identified using the group-based trajectory modelling. Linear, log-binomial and multi-nominal logistic regression modellings were used for the analyses.

Results: IL-6 was associated with both medial and lateral tibial CV loss (Medial: β =-0.51% per log pg/ml, 95%CI -0.88 to -0.15; Lateral: β =-0.34% per log pg/ml, 95%CI -0.64 to -0.04) after adjusting for age, sex, body mass index, physical activity, comorbidities, and ROA. TNF- α was not associated with either medial or lateral CV loss, but CRP was positively associated with medial tibial CV loss (Medial: β =0.27% per log mg/L, 95%CI 0.04 to 0.49), not lateral CV loss. No inflammatory markers were found to associate with medial and lateral BML size increase. Of 169 participants who had complete data at baseline, 54%, 35% and 11% of participants fell into 'Minimal pain', 'Mild pain' and 'Moderate pain' trajectory group, respectively. In multivariable analysis, IL-6 was associated with an increased risk of being a 'Moderate pain' trajectory (relative risk ratio [RRR]: 4.03, 95%CI 1.34 to 12.13) in comparison with 'Minimal pain' trajectory group. There was no significant association of TNF- α and CRP with trajectory groups.

Conclusion: IL-6 was associated with both medial and lateral tibial CV loss (Medial: β =-0.51% per log ml/pg, 95%CI -0.88 to -0.15; Lateral: β =-0.34% per log ml/pg, 95%CI -0.64 to -0.04) after adjusting for age, sex, body mass index, physical activity, comorbidities, and ROA. TNF- α was not associated with either medial or lateral CV loss, but CRP was positively associated with medial tibial CV loss (Medial: β =0.27% per log ml/pg, 95%CI 0.04 to 0.49), not lateral CV loss. No inflammatory markers were found to associate with medial and lateral BML size increase. Of 169 participants who had complete data at baseline, 54%, 35% and 11% of participants fell into 'Minimal pain', 'Mild pain' and 'Moderate pain' trajectory group, respectively. In multivariable analysis, IL-6 was associated with an increased risk of being a 'Moderate pain' trajectory (relative risk ratio [RRR]: 4.03, 95%CI 1.34 to 12.13) in comparison with 'Minimal pain' trajectory group. There was no significant association of TNF- α and CRP with trajectory groups.

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OP0197

EVALUATION OF THE RELATIONSHIP OF LEPTIN WITH THE METABOLIC PHENOTYPE OF KNEE OSTEOARTHRITIS IN THE CONTEXT OF OBESITY THERAPY

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Background: Obesity and components of the metabolic syndrome (MS) play a key role in the pathogenesis of the metabolic phenotype of osteoarthritis (OA). Obesity is a process meta inflammation due to the synthesis of proinflammatory mediators (adipokines and adipocytokines). The severity of OA depends on the presence of obesity, adipokine activity, comorbidity, and the presence of MS. The problem of treatment of metabolic OA and obesity is very relevant, in connection with the obesity pandemic.

Objectives: To evaluate the relationship of leptin with the clinical manifestations of OA and various components of MS in the context of obesity therapy.

Methods: The study included 50 female patients aged 45-65 y.o. with Kellgren-Lawrence stage II-III knee OA and obesity (body mass index (BMI)>30kg/m²). The average age of the patients was 56.5 ± 5.86 years, the average duration of the disease was 7.43 ± 3.93 years. 62% of patients were diagnosed MS. Patients were randomly divided into 2 groups for the treatment of obesity.