in transaminases, one of these patients (3%) had one episode of neutropenia up to 1.82x10^9/l (norm 2.04 - 5.80 x10^9/l). There were no serious adverse events.

**Conclusion:** The results demonstrated a good symptomatic effect of MTX in patients with knee OA and hand EOA. There was a statistically significant decrease in pain, stiffness and functional insufficiency in knee joints and small joints of the hands, a decrease in the need for NSAID throughout MTX therapy. The best clinical effect was achieved in patients with knee OA. Thus, the study showed that MTX has a good clinical effect in OA and a satisfactory safety profile.

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**POS1137**

**CORRELATIONS BETWEEN CLINICAL PARAMETERS AND SERUM CYTOKINE LEVELS IN OSTEOARTHRITIS PATIENTS WITH TYPE 2 DIABETES MELLITUS**

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**Background:** Type 2 diabetes mellitus (T2DM) is one of frequent factor that can influence on development and progression of osteoarthritis (OA) and has similar mechanisms of immunopathogenesis.

**Objectives:** To explore the symptoms and the proinflammatory serum cytokine levels in OA (hand, knee, and hip) patients with T2DM and to estimate relationships between clinical and immunological features.

**Methods:** Patients who participated in this study (n=137) were divided in two groups: patients with bilateral hand, knee and hip OA (n=56) and T2DM and control group (n=81) which had only hand and knee OA without such comorbidity. All patients were comparable in age, sex and duration of disease. We assessed serum cytokine levels (IL-1β, IL-6, IL-10, IL-18), NO including adenosine such as adenosine, leptin and C-reactive protein (CRP), erythrocyte sedimentation rate (ESR). Various symptoms of OA and mental health were measured using visual analog scale (VAS), Functional Index for Hand Osteoarthritis (FIHOA), Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC Knee/Hip), Knee injury and Osteoarthritis Outcome Score – (KOOS), Hip injury and Osteoarthritis Outcome Score – (HOOS) and with short form 36 (SF-36), Psychological Health Questionnaire (PHQ9), Coping Pain Strategy Questionnaire (CSQ). We used U-Mann-Whitney test to detect differences between groups. Correlation was assessed using Spearman correlation coefficient (r).

**Results:** Patients with OA and T2DM were characterized by the prevalence of KOOS symptoms (median (Me) 58.3; interquartile range (QR) 50–71.5; p<.0001), WOAMC Knee Total (Me 1327; IQR 930–1546; р<.0001) and low values of mental health (SD-MH (Me 48; IQR 53–66; p=0.001). We found increase of IL 6 (p = 0.0018), IL 18 (p = 0.0006), NO (p < 0.0001) levels in the blood serum of patients with OA and comorbidity. Patients with OA and T2DM had high ESR level (p < 0.0001) and leptin and C-reactive protein (CRP).

**Conclusion:** Such comorbidity as OA and T2DM has clinical and laboratory features of progression of OA. Such immunological factors as serum cytokines concentrations, adenosine, CRP are linked with the severity of T2DM-associated OA.

**REFERENCES:**


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**POS1138**

**PERSISTENCY OF DEPRESSIVE SYMPTOMS AND PHYSICAL PERFORMANCE IN KNEE OSTEOARTHRITIS**


**Background:** Knee osteoarthritis (OA) is the most prevalent arthritic disorder, characterized by joint pain, which is exacerbated by chronic depressive episo-des. Depression in knee OA is also associated with declines in physical activity level and greater disability; however, the impact of persistent depressive symp-toms on physical performance remains unclear.

**Objectives:** To determine how the persistence of depressive symptoms affects functional capacity in knee OA.

**Methods:** Participants (n=2,112) were from the Osteoarthritis Initiative cohort and included individuals with radiographic disease (Kellgren-Lawrence grade ≥ 2) and complete data on study measures at baseline. Depressive symptoms were assessed using the Center for Epidemiologic Studies Depression Scale (CES-D) with a range 0–60 at baseline and the first three follow-up visits. Physical Performance was measured using 20-meter gait speed (metres per second) during follow-up at the first four annual visits. Persistence of depressive symptoms was operationalized as a cumu-lative exposure using average severity over time. Gait speed was standardized so that outcome estimates could be interpreted in standard deviations. Time-invariant confounders measured at study enrolment included demographic, socioeconomic, and lifestyle factors. Time-varying confounders assessed concurrent to CES-D scores were body mass index, analgesic medications, pain, and other knee OA signs and symptoms. Marginal structural models accounting for time-dependent confounding and selective attrition were the primary method of analysis. The outcome model included all potential statistical interactions between depressive symptoms and fol-low-up time indicators. Post-estimation linear combinations estimated time-specific effects of time-averaged CES-D scores on standardized gait speed and differences in physical performance between participants with (i.e., CES-D=16) and without (i.e., CES-D=0) depressive symptoms satisfying screening criteria for major depression.

**Results:** The interaction between depressive symptoms and time was statisti-cally significant (P=0.001). Time-specific associations indicated that the largest negative impact of depressive symptoms on physical performance was from baseline through year one (β = -0.0077; 95% CI: -0.0125, 0.0030). However, the persistent depressive symptoms decreased over time and reversed in magnitude and directionality, evidenced by the time-specific associations between time-averaged CES-D scores from baseline to year one and year two and gait speed at year two (β = -0.0033; 95% CI: -0.0084, 0.0019) and year three (β = 0.0014; 95% CI: -0.0046, 0.0074), respectively. Consequently, the strongest negative affect of depressive symptoms on gait speed (β = -0.1232; 95% CI: -0.1998, -0.0473) between participants with and without depressive symptoms satisfying screening criteria for major depression was when depressive symptoms were first measured closest to the initial gait speed assessment.

**Conclusion:** In the contrast to the dose-dependent relationship between chronic depressive episodes and pain in knee OA, study findings imply that the negative effect of depressive symptoms on physical performance decreases over time with increasing depression persistency. These results may reflect diminishing marginal effects, where the largest impact on physical performance in knee OA is during the first depressive episode closest to initial gait speed assessment, especially when averaged against improvement in symptoms over the same duration.

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