At the baseline, standard clinical examination for all patients were blood tests, urine test, coagulation panel and ECG.

Results: After comparing of two groups by the end of course the intensity of pain by VAS was significantly greater in R group ($21,88 \pm 13,24$ vs $16,81 \pm 13,49$; $p < 0,0001$). There were no significant differences between groups in improvement of WOMAC, WOMAC subscales and MPQ from baseline. Serious adverse events (AE) were absent. 11 AE's were detected 3,3% (5/150), but in 100% of cases AE's were resolved by the end of course.

Conclusion: CS is effective decreased intensity of pain and stiffness, improved functional ability of joints both intramuscular and concomitant route of administration. However, significantly greater results at pain intensity by VAS shows combination: pain intensity by the end of course was significantly lower in group with concomitant intramuscular and intra-articular injections. Probably, it was associated with faster resolution of synovitis by intra-articular route of administration, that leads to choose this route for patients with comorbidity.

Evaluation of pain by VAS in groups

Disclosure of Interests: None declared.

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AB0604 FACTORS ASSOCIATED WITH PAIN IN EARLY KNEE OSTEOARTHRITIS (PRELIMINARY DATA)

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Background:

Objectives: To identify factors associated with pain in patients with early knee osteoarthritis fulfilling ESKOA criteria [1].

Methods: 50 patients (46 women (92%); 4 men (8%)) fulfilling ESKOA criteria were enrolled in the trial, every participant signed up the consent form. Median age of patients was 47 ± 8 yrs (36 – 63 yrs), body mass index (BMI) was $28.5 \pm 4.9 \text{ kg/m}^2$ (40% of patients had obesity). Every patient, after signing the standard informed consent form, was addressed to a physician, who would fill in an individual case report form (CRF), including anthropometric parameters, history of OA, comorbidities and physical examination data. Knee pain was also assessed with the use of visual analog scale (VAS). All participants underwent knee X-ray according to the standardized fixed flexion protocol with the use of positioning frame [2].

Results: Most of the patients (70%) were between the ages of 35 and 50 and only 15 of them (30%) were older than 50 years. Median knee pain duration was found to be 16 (12-20) weeks, intensity of VAS – knee pain was 46 mm (42-50). Median number of episodes of knee pain (in the last 6 months) was 3 (2-6); 30 participants (60%) had episodes of knee pain lasting less than a week, 8 of them (6%) had pain lasting for around a week, 12 of them (24%) had episodes of pain lasting more than one week. In most patients (74%) pain relieved with time, without any additional therapy. Most of the patients had episodes of knee pain linked to increased overload (48 (96%)), when squatting (41 (82%)), most of the patients also reported pain when climbing up and down the stairs (80%) and short joint stiffness when starting movement (76%). Knee pain after sitting was reported in 54% of cases and 20 participants (40%) also reported some walking limitations due to knee discomfort.

Knee X-ray revealed that most of the patients had I Kellgren&Lawrence (K&L) stage knee OA (picture 1). All the included participants had ESR (7 (5-10 mm/hr)) and CRP (1.24 (0.8-2.2 mg/l)) within normal range.

Picture 1 – Radiological knee OA stage (K&L) distribution in the study group

In the Spearman correlation analysis, we have estimated the factors, which may be associated with more severe pain in patients with early knee OA fulfilling the ESKOA criteria. We found out that higher BMI ($r=0.38$, $p=0.02$), presence of metabolic syndrome ($r=0.37$, $p=0.008$) and hypertension ($r=0.29$, $p=0.04$), as well as walking limitations ($r=0.33$, $p=0.008$) are associated with knee pain.

Conclusion: The use of ESKOA criteria in patients with short duration of knee pain can facilitate diagnosis of osteoarthritis on an early stage. In addition, the acquired data show that timely diagnosis and correction of certain components of metabolic syndrome may be beneficial for the course of knee pain intensity in patients with early knee OA, further continuation of this trial is necessary.

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AB0605 ACTIGRAPHY-BASED PHYSICAL ACTIVITY MONITORING IN PATIENTS WITH KNEE OSTEOARTHRITIS AND COMORBID FIBROMYALGIA

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Background: Low physical activity (PA) levels are common in patients with diseases associated with pain syndrome, such as osteoarthritis (OA) of the knee joints. Recent studies show that OA may be accompanied by concomitant fibromyalgia (FM) – a chronic pain syndrome associated with sedentary behavior [1]. As far as low PA levels are associated with poor quality of life and higher all-cause mortality, PA measurement in patients with knee OA and concomitant FM is of considerable interest [2,3].

Objectives: The aim of this study was to investigate and compare physical activity measured by an actigraph in knee OA patients with and without comorbid FM.

Methods: A total of 70 patients with painful knee osteoarthritis (OA) – 35 subjects (30 females and 5 males) with concomitant fibromyalgia (FM) aged 59.8 ± 14.9 (M $\pm$ SD) years and 35 patients (30 females and 5 males) without concomitant FM aged 58.5 ± 15.7 (M $\pm$ SD) years were enrolled in the study. 35 healthy controls of the same age and gender underwent the same investigation. OA diagnosis was established according to ACR 1986 Osteoarthritis Knee Criteria. FM was diagnosed if both modified 2010 ACR diagnostic criteria and 2016 Fibromyalgia Diagnostic Criteria were met. All participants wore an actigraph (GT3X model accelerometer) on the wrist for the period of 5 working days. Average daily minutes in light, moderate and vigorous PA were calculated.

Results: All OA patients with and without FM spent significantly less time in vigorous PA compared to controls. Obtained results did not indicate significant difference between time in vigorous activity in OA patients with and without FM. Patients with OA alone showed insignificant decrease in time in moderate activity in comparison with healthy subjects. OA patients with comorbid FM showed significantly less time in moderate activity compared to OA patients without FM and healthy individuals.

Conclusion: Our study results revealed that patients with painful knee OA and comorbid FM have greater activity limitations than patients with painful knee OA alone and healthy individuals.

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