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Abstract Book

try among women without DM2 was also insignificantly higher in those with a history of OF than without OF, 42.3% and 24.0%, respectively ($p=0.172$).

We didn't find differences in TBS ($p=0.674$), fracture risk according to FRAX without densitometry, and FRAX adjusted for TBS between women with and without DM2 ($p=0.841$, $p=0.094$, respectively). In women with DM2 and OF, the FRAX risk based on the T-test was lower than in women having OF without DM2 ($p=0.034$ for major fractures, $p=0.002$ for the hip).

Conclusion: In studied sample, postmenopausal women with DM2 and fractures have higher BMD values, lower fracture risk (according to FRAX corrected for the T-score), and did not have significant differences in TBS value, compared to women without DM2 and with a history OF. The relationship between BMD and fracture risk according to the FRAX score, seems to be controversial in women with DM2 and OF; the data obtained reflect the difficulties in early diagnosis of osteoporosis in these patients.

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USE OF ULTRASOUND SCORING SCALE FOR LESIONS OF SMALL JOINTS OF THE HAND IN PATIENTS WITH EARLY UNDIFFERENTIATED ARTHRITIS

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Objective: To evaluate the possibility of using ultrasound signs of small hand joint lesions to predict the outcomes of early undifferentiated arthritis (EUA).

Methods: Ultrasound examination of the hand joints (Accuvix V10, Samsung Medison) was performed consecutively in 102 patients (women 71.6%; mean age 44.8 ± 17.2 years old) with early undifferentiated arthritis. The following parameters were recorded: 1) synovial thickness; 2) blood flow in synovial membrane by Doppler; 3) presence of hyperechogenic inclusions in synovial membrane; 4) cortical bone contour; 5) signs of tendon inflammation (finger flexors and extensors). The patients were prospectively observed at baseline, after 3 months and after 1 y.

Results: 47 patients (46.1%) were diagnosed with early rheumatoid arthritis (RA) at 12 months follow-up. At baseline, patients in this group most frequently (46.8%) had tree-like blood flow in the synovial membrane of the joint from the cortical contour of the bone ("pannus") according to ultrasound of the hand, in 83% of cases the presence of finger extensor tenosynovitis and/or synovial membrane thickening with Doppler blood flow was noted. For more accurate prediction the possible transition of EUA to RA we

proposed a ball score of ultrasound indices: 1) symmetric arthritis of metacarpophalangeal joints - 2 points; symmetric arthritis of proximal interphalangeal joints - 2 points; 2) unexpressed extensor tenosynovitis - 1 point, expressed extensor tenosynovitis - 2 points; 3) synovial thickening >3 mm - 1 point, synovial thickening >3 mm with Doppler blood flow - 2 points; erosion with disruption of the cortical bone contour - 1 point, reliable erosion - 2 points. When the sum of points was calculated (minimum 0 points, maximum 10 points), the accuracy in predicting a low risk of progression to RA (≤ 6 points) was 72-76%, and a high risk (≥ 8 points) was 83-90%, depending on the gender and age of the patients.

Conclusion: The use of ultrasound scoring scale of small joint lesions of the hand in patients with EUA can more clearly predict the development of RA.

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INCREASED VALUE OF BASELINE CENTRAL SENSITIZATION AND CATHEPSIN S GENE EXPRESSION FOR PROGNOSIS OF POSTOPERATIVE PAIN DEVELOPMENT IN PATIENTS WITH ENDSTAGE HIP OSTEOARTHRITIS

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Objective: To assess the importance of clinical indices, pain-related cathepsin S and proinflammatory cytokine gene expressions in the peripheral blood in prediction of postsurgical pain development in patients with endstage hip OA prior to arthroplasty.

Methods: We examined peripheral blood of 31 endstage hip OA patients (average age 61.3 ± 9.8 years old) undergoing joint replacement surgery and 26 healthy volunteers. Patients were tested before and 6 months after surgery. Pain was assessed prior to surgery using VAS index and neuropathic pain questionnaires DN4 and PainDETECT. Functional activity was evaluated by WOMAC. After surgery pain indices according to VAS of 30% and higher were considered. Total RNA isolated from whole blood was used in expression studies for cathepsin S, IL-1 β , TNF α , and cyclooxygenase (COX)2 genes using quantitative real-time RT-PCR.

Results: After 6 months post-surgery pain complaints were obtained from 12 patients (38.7%) out of 31. Prior to surgery expression of cathepsin S, IL-1 β , TNF α , and COX2 genes was significantly upregulated in both subsets of patients compared with healthy controls. Moreover, neuropathic pain according to DN4 questionnaire and cathepsin S gene expression was significantly higher in patients who developed post-operative pain compared with painless subjects while no significant difference in proinflammatory cytokine gene expressions was noted between the examined subsets prior to surgery.