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AbstractBook

etry 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 WOM-AC. 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.