selected from healthy adults with same age. Than blood samples were investigated in biochemistry unit. Protein carbonyl content of the samples were determined according to the method described by Levine *et al* and the modified method was described by Koster *et al*. These two methods were used for determination of protein sulphhydryls.

Results The sulphhydryl contents of RA patients were found significantly decreased than those in age and sex matched controls, $396,26 \pm 42,33$ mmol/L and $677,21 \pm 59,98$ mmol/L respectively ($p < 0,001$). On the other hand the carbonyl contents of RA patients were found significantly increased than those in controls, $105,45 \pm 14,26$ mmol/L and $93,65 \pm 10,49$ mmol/L respectively ($p < 0,05$).

Conclusion These changes in oxidative stress markers could indicate the role of free radical attacks on proteins.

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AB0032 BONE DESTRUCTION IN RHEUMATOID SYNOVIA

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Background Rheumatoid Arthritis (RA) is characterised by severe and irreversible bone destruction in affected joints on its last stage. On the other hand, bone absorption by osteoclasts may be a natural physiological phenomenon as bone remodelling in mature manhood. Throughout our life, bone is constantly renewed with the process of old bone removing and new bone supplement. Osteoclasts are derived from the hematopoietic granulocyte/macrophage colony forming units, which also become to monocytes and macrophages, and their progenitors move from bone marrow to bone surface through the circulation or direct migration, and differentiate to functional mature osteoclasts with stimulation of some cytokines and/or direct contact. In RA, or another bone destructive disease, activated osteoclasts certainly have a critical role in bone destruction. But, is that all? How bone is broke down in RA? We have speculation that some cells derived from rheumatoid synovia were activated by inflammatory cytokines abundant in the joint of RA and take a significant role in the destruction of the bone.

Objectives To elucidate what mechanism is there, we have observed the pannus-bone junctions in detail.

Methods The specimens of the destructive bone derived from the RA patients under arthroplasty with their consent. Tissue sections from the pannus-bone junctions at sites of bone erosion were examined by hematoxylin-eosin staining, tartrate-resistant acid phosphatase (TRAP) staining, and electron microscopy. Synovial tissues were also examined immunohistochemically.

Results The specimens of the destructive bone derived from the RA patients showed that there were many not-classical osteoclasts in the area of bone erosions. Cells in the erosive front of RA are divided in four groups, the authentic osteoclasts, mononuclear osteoclasts, fibroblast-like cells and monocytes. The electron microscopy observations revealed that the fibroblast-like cells certainly have some contact with bone matrix. TRAP-

positive cells and vitronectin receptor -positive cells were seen in frozen sections of synovial membrane from the patient with RA.

Conclusion Our result showed that not only authentic osteoclasts, but the mononuclear cells and fibroblast-like cells were activated and have some role in bone destruction of RA.

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AB0033 ASSOCIATION OF C ? REACTIVE PROTEIN WITH BONE MINERAL DENSITY AND BIOCHEMICAL MARKERS OF BONE TURNOVER IN OSTEOPOROSIS PATIENTS WITH RHEUMATOID ARTHRITIS

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Background

Objectives To examine the association of C ? reactive protein (CRP) on bone mineral density and biochemical markers of bone turnover in osteoporosis patients with rheumatoid arthritis (RA).

Methods Out of the 60 female patients with proved diagnosis of RA aged 34–64 years.; Gr. 1: 30 women with preserved menstrual cycle (median age 41,5 years, disease duration 9,5 years, rheumatoid factor positive 80%). Gr. 2: 30 women with postmenopause. (median age 56,2 years, disease duration 10,2 years, rheumatoid factor positive 83,3%). Both groups have not undergone any glucocorticoid or antiosteoporotic therapy. Bone mineral density (BMD) was measured with a ?QDR Hologic 1000 plus? by Dual Energy X -Ray Absorptiometry (DEXA) method, for the lumbar spine and in proximal segments of the femur. Concentration of CRP, bone alkaline phosphatase (BAP) and deoxypyridinoline (Dpir) was studied by immunoensymatic method.

Results In gr.1 of RA patients by with increase of concentration (CRP) > 50 mg/l reliable decrease of BMD was determined in all studied sections of proximal segment of the femur, as compared with patients with CRB £ 50 mg/l level, and in gr. 2 similar change was observed only in BMD L1-L4. Negative correlation between CRB and BMD femoral neck ($r = -0,53$, $\delta < 0,005$) in RA patients of gr. 2, and in gr.1 with CRB and BMD of femoral neck ($r = -0,5$, $\delta < 0,01$) was revealed. Direct significant correlation between the level of Dpir and CRP has been revealed in both groups ($r = 0,46$, $\delta = 0,04$ and $r = 0,51$, $\delta = 0,02$ relatively). Reliable correlation between BMD L1-L4 and CRP, also between BAP and CRP was not revealed.

Conclusion Increase of CRB concentration in RA correlated with growing of bone resorption markers and decrease of BMD of femoral neck.

AB0034 THE DISTRIBUTION OF HLA-DRB1 ALLELES IN THE RUSSIAN POPULATION WITH PROTRACTED RHEUMATOID ARTHRITIS (RA)

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Background