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AB0041 COMPARISON OF ULTRASOUND FINDINGS OF KNEE JOINT SYNOVITIS AND DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS PATIENTS

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Background Proliferative synovitis is very common finding in patients with rheumatoid arthritis (RA). Among imaging methods ultrasound is very useful instrument for detection of synovial abnormalities. Using this method we can measure thickness of synovium, it's morphology and localisation. During examination we also can detect joint effusion in knee and presence of Baker's in popliteal fossa. As a sign of synovial inflammation we can detect enhanced blood flow in proliferated synovium.

Objectives The aim of our study was to detect and measure the thickness of synovial proliferated tissue in suprapatellar recess and to try to find correlation between this finding and disease activity. We also used power doppler to observe blood flow in small vessels of synovial tissue.

Methods In our study we included 20 patients with clinically affected both knees. Using modern equipment for ultrasound examination (Acceuson Sequoia 5–8 MHz with power doppler), we measured thickness of the synovium in the middle of suprapatellar recess in longitudinal approach. We also detected presence of joint effusion as well as Baker's cyst in popliteal fossa. Disease activity was estimated by sedimentation rate.

Results We found the thickness of synovial tissue range 1, 3–6 mm (X average = 3,6 mm). Joint effusion was presented in all patients. In 46% of patients we found Baker's cyst with the same synovial pattern. Sedimentation rate in our patients was ranged 19–110/h. We didn't find any significant correlation between synovial thickness and such estimated disease activity. We also found presence of extensive blood flow in small vessels of synovium.

Conclusion Ultrasound is very objective instrument for detection and measuring of synovial proliferation. This information is useful for practitioner to indicate corticosteroidal injections, synoviorthesis or surgical synoviectomy. This method is also necessary to estimate the results of those procedures.

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AB0042 STRUCTURE OF RENAL DAMAGE IN RHEUMATOID ARTHRITIS

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Background Renal damage is one of most unfavourable prognostic factors in rheumatoid arthritis (RA). Most frequent pathology is renal amyloidosis. Rheumatic glomerulonephritis as a systemic manifestation of RA is infrequent. Important place belongs to renal exacerbations due to NSAIDs treatment and basic drugs.

Objectives To determine the character of renal damage in RA by the data of biopsy material.

Methods In the period from 1998 to 2000 in Rheumatological department of Ulianovsk Regional Hospital 10 RA pts with nephropathy symptoms were examined: proteinuria, azotemia, nephrotic syndrome with median disease duration of 17.7 ± 5.1 years. Appearing of symptoms of renal pathology was in 10.7 ± 3.5 years from RA onset. Pts did not have basic therapy; according to their condition – only NSAIDs (Diclofenac, Indomethacin). All pts had closed renal biopsy.

Results According to data of hystological analysis 4 pts demonstrated amyloid lesion, 4 – interstitial nephritis, 1 – mesangio-proliferative glomerulonephritis, 1 – combination of amyloidosis and interstitial nephritis. In two cases renal damage was the reason for lethal outcome.

Conclusion Absence of basic therapy for a long period of time of the disease results in the development of extraarticular manifestations and RA complication – amyloid renal damage.

AB0043 ANTI-FILAGGRIN AUTOANTIBODIES ARE NOT PREDICTIVE OF RADIOLOGICAL PROGRESSION IN RHEUMATOID ARTHRITIS (RA) – RESULTS OF A 3-YEAR LONGITUDINAL PROSPECTIVE STUDY FROM A POPULATION BASED-RECRUITMENT OF 127 RA

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Background

Objectives To evaluate the predictive value of autoantibodies (Ab) directed against citrullinated recombinant rat filaggrin (ACRFA) detected by a new ELISA for prognosis in a cohort of community cases of RA.

Methods 127 patients (mean age: 50.5 yr, F/M: 2.9) with early RA (median disease duration: 2 yr) were enrolled prospectively in 1996 (T1), primarily from a population based-recruitment (80%), and were followed until 1999 (T2). At T1 were tested rheumatoid factors determined by the latex fixation test (LFT) and anti-filaggrin Abs identified by different assays, i.e. anti-keratin Ab (AKA), and anti-perinuclear factor (APF) by indirect immunofluorescence, ACRFA by an ELISA test whose results are expressed as the difference of OD values given by sera tested against the citrullinated and non-citrullinated forms of filaggrin. At T1 and T2: radiographs of the hands and wrists. Prognosis was defined by (1) radiological damage (van der Heijde modified Sharp method) at T2; (2) progression of radiological damage between T1 and T2.

Results At T1: RA had mild activity (Ritchie articular index: 11/78, mean CRP: 15 mg/l), mild functional disability (HAQ: 0.8/3), mild X-ray destruction (Sharp: 9.2/280); 96% of patients were treated at T1 (DMARDs: 95%; prednisone: 72%); frequency of LFT, AKA, APF and ACRFA were respectively: 50%, 33%, 45% and 45%. At T2: total Sharp score: 22.8/280. The only parameter at T1 associated with a higher Sharp score at T2

($p = 0.03$) and particularly with a more important radiological progression ($p = 0.03$) was the LFT.

Conclusion Whatever the method used, indirect immunofluorescence or ELISA, anti-filaggrin do not allow to predict radiological damage in community cases of RA of limited duration.

AB0044 AN OUTSTANDING LATE RHEUMATOID ARTHRITIS IN A PATIENT WITH ACROMEGALIC ARTHROPATHY: A CASE REPORT

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Background

Objectives Arthropathy is a consequence of growth hormone excess in acromegalic patients due to articular cartilage and nearby soft tissue involvement. Rheumatoid arthritis (RA) is, on the other hand, another entity, which may sometimes look alike due to the similar clinical findings. We present this case where these both diseases exist at the same time.

Methods A 63-year old male complaining of joint pain and ankle swelling was evaluated. The arthralgia he described, was mainly in his knees, elbows and shoulders, and exaggerated especially at night. Recently accompanying swelling and erythema in his left ankle and in the left second metacarpophalangeal (MCP) joint did exist. He has been diagnosed as acromegalia for 15 years whereas his symptoms related with the joints came out within the last 6 years. He is somatotropinectomized and has also received radiotherapy for his primary disease. His neck, bilateral wrist, elbow and shoulder joints were involved, thus were painful and limited during normal range of motions. MCP joints being worse than the interphalangeal joints were likewise involved. His left ankle and MCP joints were swollen and red additionally. Laboratory and radiological evaluations comprising complete blood count, liver and kidney function tests, serological tests, direct x-rays of the joints were carried out. His erythrocyte sedimentation rate (ESR) was 93 mm/h, RF: 685 IU/ml. The diagnosis of rheumatoid arthritis other than the concurrent acromegalic arthropathy was confirmed with the radiological and clinical findings according to the ARA criteria. He was then treated with steroids.

Results We considered this case challenging and notifying since an acromegalic patient can easily be misdiagnosed as having RA especially when high ESR and morning stiffness accompanies the case. We think the uncommon coexistence i.e. not mentioned up to date in the literature, may enlighten the still unknown pathogenesis of RA with the probability of growth factors mastering the whole event.

Conclusion

AB0045 PERIPROSTHETIC BONE REMODELLING AND RADIOGRAPHIC FIXATION OF A CEMENTLESS TOTAL HIP ARTHROPLASTY WITH TITANIUM STEM IN RHEUMATOID ARTHRITIS AND OSTEOARTHRITIS PATIENTS

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Background New bone formation around cementless stem after total hip arthroplasty is dependent on implant design, material, and mode of porous coating. These osteogenesis patterns are classified as follows, proximal endosteal bone bridging spot welds, increased cortical thickness (cortical hypertrophy) and thin radiodense lines surrounding the tip of the implant (halo pedestal). However, no reports showed the comparison of bone remodelling patterns surrounding stem among diseases: such as osteoarthritis (OA), rheumatoid arthritis (RA), avascular necrosis and neck fracture.

Objectives The purpose of this study is to clarify whether there are differences of the postoperative bone remodelling pattern around the femoral stem between RA and OA patients.

Methods Total hip arthroplasty with the Mallory-Head cement less titanium prosthesis has been performed since 1992 in our institute. This tapered stem has plasma spray coating in proximal one third of it. RA group included 18 hips (mean age at operation was fifty-five years old and mean duration of follow-up was 4.6 years). OA group included 70 hips (mean age at operation was fifty-eight years old and mean duration of follow-up was 5.2 years). Anteroposterior radiographs of the hip were made at 6 weeks, 3 months, 6 months, one year and every year after the operation. We evaluated the frequency and time of new bone remodelling appearance around the stem such as spot welds, cortical hypertrophy, and pedestal. We defined that the radiographic signs of instability were progressive subsidence or the presence of radiolucent lines around the porous coating (1). To evaluate the differences in both groups, the Mann-Whitney's U test and chi-square test were used. P values of less than 0.01 were considered significant.

Results In both groups, there was no case, which has radiographic sign of instability. Age and intramedullary canal fill of the stem at the operation and follow-up period were not significantly different between RA and OA groups. In endosteal spot welds, the time of its appearance in RA group (2.7 months after operation) was significantly shorter than that in OA group (5.2 months) and the frequency of it did not differ between both groups. However, in halo pedestal, the frequency in RA group (50%) was significantly lower than that in OA group (87%) and the time of its appearance did not differ between both groups. On the other hand, concerning about cortical hypertrophy, time and frequency showed no significant differences between two groups.

Conclusion We revealed that in RA patients, endosteal spot welds appeared significantly earlier than that in OA patients, and the frequency of halo pedestal was significantly lower than that in OA patients.

AB0046 PREVALENCE OF TUBERCULOSIS INFECTION IN RHEUMATOID ARTHRITIS PATIENTS TREATED BY CORTICOSTEROID PULSE THERAPY

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Background Several pathogens have been previously reported in rheumatoid arthritis (RA) patients treated by corticosteroid pulse therapy (CPT)¹⁻³ and we recently described a case of upper lobe cavitary tuberculosis in a patient with RA under CPT associated to methotrexate.⁴