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.

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THU0160 SEMI-QUANTITATIVE AND STANDARDISED SONOGRAPHIC INVESTIGATIONS OF THE ACTIVITY OF INFLAMMATION IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background With high-resolution sonography (US) of joints affected by rheumatoid arthritis (RA) a detailed delineation of intra- and extraarticular soft-tissue abnormalities is possible. Power-Doppler is useful for the analysis of the vascularisation of inflamed tissue. The aim of the study was to evaluate the diagnostic value of Power-Doppler and B-Mode US in context with clinical examinations and conventional radiography.

Objectives

Methods To date, in 22 patients (5 males, 17 females) with different grades of RA (17 RF+, 5RF-) the wrists and MCP I-V and PIP II-V were scored with sonography (ATL HDI 5000, 5□12 MHz Transducer, synthetic plastic blocks) with B-Mode and Power-Doppler application in standardised technique. Extension and severity of the inflamed tissue as well as vascularisation were scored. The results were correlated with benchmarks of the clinical and radiologic investigations. Radiographs were assessed according to the Larsen Score. The amount of time of US investigation was measured.

Results With sonography, both extension and severity of wrist lesions could be delineated to better advantage than with radiography and clinical examination. This was also true for the MCP joints with the exception of MCP II, where most of the lesions detected by radiography were found. From 484 joints, 29% were found to be abnormal by clinical investigations. Erosions were detected in 26% with radiography, in 37% with sonography. Hypervascularisation was found in 36%. No significant difference of US abnormalities between patient groups with positive and negative RF could be found. A modern state-of-the-art Power Doppler program release is a necessary tool for semi-quantification. A standardised investigation technique with a median amount of time of 18 min provides sufficient quality measures.

Conclusion Sonography detects more bone erosions than radiography and clinical examination. It supports the diagnosis of RA manifestations of the hand.

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THU0161 RHEUMATOID ARTHRITIS WITH ANTIKERATIN ANTIBODIES (AKA): A DISTINCT IMMUNOGENETIC OR PROGNOSTIC SUBGROUP?

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Background Antikeratin antibodies (AKA) have been described as the most specific serologic markers of RA. However, whether these antibodies can identify a particular RA population it remains controversial.

Objectives To compare the immunogenetic features (HLA-DRB1 and TNF-α polymorphism) and radiological severity of a group of patients with early RA, according to the presence or not of AKA.

Methods 65 patients with early RA (48F/17M, mean age: 50 ± 14 y, mean disease duration 15 ± 12 mo, RF+:71%) were genotyped for HLA-DRB1 and TNF-α alleles. Hands and feet x-ray were taken at entry and then yearly during follow-up. The Larsen method was used to assess radiographic damage. AKA was determined by immunofluorescence using a modified Young method (sensitivity/specificity 60.2%/98.3%).

Results AKA were present in the sera of 34 patients (prevalence of 52.3%). RF was more frequently found in AKA+ patients