

REVIEWS

D. Dimov. GOUT IN WOMEN. II. CLINICAL, LABORATORY AND THERAPEUTICAL FEATURES

Summary. Although gout manifests itself in both sexes mainly by its classical clinical picture, it is in women, more often than in men, that it shows its atypicalnesses in the kind, localization, and evolution of joint involvement, in the degree of the biochemical alterations, and particularly, in the frequency of the associated diseases. These differences create bigger difficulties with the diagnostics of gout in women, which is made with some delay in comparison to that in men. The bigger prevalence of arterial hypertension, renal and heart insufficiency, as well as diuretic use in women hamper both the treatment of the acute attacks, and the management during the inter-critical period.

Key words: gout, women, clinical picture, diagnostics, treatment

A. Batalov, I. Sheytanov, R. Nestorova and R. Stoilov. ULTRASOUND-GUIDED INVASIVE PROCEDURES IN RHEUMATOLOGY

Summary. The number of diagnostic and therapeutic invasive procedures in rheumatology is increasing and their imaging technique-guided performance has turned to be more effective than this executed blindly. Different studies have reported conventional intra-articular manipulation failure of up to 50%. Unlike fluoroscopy and computed tomography (CT), ultrasound (US) examination employs no ionizing radiation. It facilitates needle insertion during arthrography, tenography or bursography, or may guide various procedures, such as biopsy, aspiration, arthrocentesis, cyst decompression, local injection of steroids or other medicines, and penetration in tendon calcifications. At the same time, due to the executed sonographic control, neurovascular bundles and adjacent soft tissue structures are not affected. Technologic improvements have increased US control preciseness and have their impact on decreasing the risk of post-invasive procedure complications. Real time-Dynamic Scanning enables the simultaneous visualization of the target structure and needle or drug penetration. The incidence of undesired events could be further decreased if strict adhering to sterility and considering of patient's contraindications are observed during the invasive procedure.

Key words: rheumatology, invasive procedures, US control

A. Toncheva, I. Gruev and K. Ikonomova. PREVENTION OF CARDIOVASCULAR RISK IN RHEUMATOID ARTHRITIS AND SYSTEMIC LUPUS ERYTHEMATOSUS

Summary. In the last few years, there is much attention given to the association of inflammatory rheumatic diseases with early developed atherosclerosis. Most probably it is a matter of a complex interaction between the traditional and the disease-related risk factors. Therefore, minimizing cardiovascular risk (CVR) is a crucial part of controlling disease activity in the treatment plan for patients with rheumatoid arthritis (RA), systemic lupus erythematosus (SLE) and other chronic inflammatory diseases. There is already a multiple proof for the efficiency of some therapeutic strategies, whose most notable quality is decreasing the disease activity as well as the cardiovascular risk. A work is being done for minimizing the clinical time and resources necessary for allocating patients in different groups for risk treatment. The conclusion is that cardiovascular risk treatment should be more aggressive in patients with RA and SLE. Continuous research is necessary for proving the benefits of CVR treatment in these patients.

Key words: chronic inflammation, rheumatoid arthritis, systemic lupus erythematosus, atherosclerosis, endothelial dysfunction

ORIGINAL ARTICLES

I. Manolova, M. Ivanova and S. Vladeva. THE DIAGNOSTIC VALUE OF ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODY (ANCA) TESTING IN CLINICAL PRACTICE

Summary. The aim of this study was to evaluate the diagnostic value of antineutrophil cytoplasmic antibody (ANCA) test for the diagnosis of systemic necrotizing vasculitides in clinical practice. 428 patients investigated for ANCA of which 7 newly diagnosed patients with ANCA-associated vasculitides were included. Clinical utility of the ANCA-IIF test in the identification of CTD was determined by its estimated sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV). For c-ANCA,

the sensitivity was 85,7%, the specificity – 100%, PPV – 100%, and NPV – 99,8%. The sensitivity, specificity, PPV, and NPV of p-ANCA were 14,3%, 77,7%, 1,1%, and 98,2%, respectively. For the combination of positive MPO-ANCA test at a titre equal to 1:80 the PPV of ANCA test was 16%. In conclusion, ANCA testing should not be used as a screening tool or diagnostic test in patients with suspected systemic vasculitis.

Key words: antineutrophil cytoplasmic antibodies, diagnostic value, indirect immunofluorescence, myeloperoxidase, proteinase 3

N. Staykova and M. Murdzheva. CLINICAL IMPORTANCE OF ANTI-CCP ANTIBODIES IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS

Summary. Serological evidence for diagnostics and prognosis of rheumatoid arthritis (RA) includes detection of IgM rheumatoid factor. Recently it has been found that patients with rheumatoid arthritis synthesize antibodies against proteins containing citrulline residues – anti-CCP autoantibodies. Aim of the study was to evaluate clinical and laboratory markers for RA activity in anti-CCP positive patients with early RA at disease onset and during a 5-year period. Fifty patients with early RA were included in the study. Forty six healthy volunteers served as controls. They were examined for clinical and laboratory parameters of disease activity at the onset, after 6, 12, 36 and 60 months. Anti-CCP antibodies were detected using second generation kit (Axis-Schield, UK). In patients with early RA, the diagnostic sensitivity of anti-CCP was 74,0% and the specificity – 96,65% whereas for rheumatoid factor (RF) they were 76,0 and 86,9% respectively. Simultaneous presence and detection of anti-CCP and RF increased the diagnostic accuracy to 80,0% and respectively – 97,82%. No statistically significant difference in disease activity of RA patients with anti-CCP(+) and anti-CCP(–) test was found at the onset. In the course of study, anti-CCP positive patients had significantly higher disease activity ($p < 0,05$). Conclusion is that anti-CCP autoantibodies are a better diagnostic marker than RF assuming their higher specificity. They are good prognostic markers for severity of disease activity.

Key word: early rheumatoid arthritis, anti-CCP antibodies, clinical course, prognosis

N. Staykova. CRITERIAL VALIDITY OF DAS28 AND MALLYA INDICES IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS

Summary. DAS28 and Mallya indices are often used in clinical trials for evaluation of the clinical activity of rheumatoid arthritis (RA). In our country, their criterial validity had not been estimated yet. Aim of the study was to establish the criterial validity of DAS28 and Mallya indices in long-term follow-up of patients with early rheumatoid arthritis. A cohort of 210 patients with early RA was investigated (mean duration of the complaints up to 12 months). 180 of the patients were women and 30 were men at mean age $46,38 \pm 0,85$. For the evaluation of the functional activity of the patients, HAQ had been used, filled in by each of the patients at the beginning, at the first, third and since then at equal 2-year intervals till the 11th year from the evolution of RA. The correlative matrix showed that the disease activity, determined with DAS28 at the beginning, at the 1st, 3rd and 5th year of follow-up was in a predominantly mild positive correlation with the functional disability of the patients. As the duration of the disease got longer, the correlation between DAS 28 and HAQ got stronger ($p < 0,0001$). The disease activity, evaluated by Mallya index at the beginning and at the 1st year from the evolution of RA showed a significant mild correlation with the functional impairments of the patients. After the 3rd year the correlation between both factors was strong ($p < 0,0001$). It is concluded that both indices have equal criterial validity when used for the evaluation of the disease activity of RA at the stage of posing the diagnosis as well as during long-term follow-up. The clinical activity of RA among the Bulgarian population is strongly correlated with the functional disability of the patients.

Key words: early rheumatoid arthritis, validity, DAS 28, Mallya index, HAQ

A. Toncheva, M. Remichkova, K. Ikonomova, P. Dimitrova and N. Ivanovska. INFLAMMATORY RESPONSE IN PATIENTS WITH ACTIVATED AND NON-ACTIVATED OSTEOARTHRITIS

Summary. In the present research, the inflammatory response was compared in patients with activated and non-activated osteoarthritis. There were investigated 37 patients with activated osteoarthritis, 19 with non-activated osteoarthritis and 31 healthy controls. By the use of ELISA method, the following inflammatory markers were tracked – TNF- α , IL-6, sRANKL, RANTES and

MRP-8. The objective was to evaluate their potential as markers for the disease activity. Moreover, spontaneous and LPS-induced release of TNF- α and IL-6 was noted in neutrophil leukocytes. Activated osteoarthritis was associated with increased serum levels of TNF- α , IL-6, RANTES, while sRANKL and MRP-8 were increased both in activated and non-activated osteoarthritis. The release of cytokines (TNF- α , IL-6) by the neutrophils, spontaneous and LPS-induced, helps the exacerbation of osteoarthritis.

Key words: osteoarthritis, cytokines, TNF- α , IL-6, sRANKL, RANTES, MRP-8

M. Ivanova, I. Manolova and R. Stoilov. RELATIVE VALUE OF ERYTHROCYTE SEDIMENTATION RATE AND C-REACTIVE PROTEIN IN ASSESSMENT OF DISEASE ACTIVITY IN ANKYLOSING SPONDYLITIS

Summary. Our aim was to determine whether C-reactive protein (CRP) or erythrocyte sedimentation rate (ESR) is more appropriate in measuring disease activity in ankylosing spondylitis (AS). The criteria for disease activity were: physician and patient assessment of disease activity on a visual analogue scale (VAS) and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI). In each measure, we defined 2 levels of disease activity: no activity and definite disease activity. The patients with AS were divided into 2 groups: those with spinal involvement only ($n = 13$) and those who also had peripheral arthritis ($n = 43$). For each criterion of disease activity, we calculated ROC (receiver operator characteristics) curves to determine cutoff values of ESR and CRP with the highest sensitivity and specificity. The mean values of ESR and CRP were 36 mm/h and 29 mg/l, respectively, in the spinal group and 40 mm/h and 27 mg/l, respectively, in the peripheral group. In both groups, the Pearson correlation coefficients between CRP and ESR were similar ($r = 0.564$, $p < 0.001$ in peripheral arthritis group and $r = 0.741$, $p < 0.05$ in spinal group). There was a correlation only between ESR and physician's global assessment of disease activity for spinal group. Sensitivity of ESR and CRP for disease activity was 83%, and 86%, respectively, according to the physician assessment and between 70 and 79% according to the patient assessment and the BASDAI, while specificity was between 65 and 79% for all disease activity measures. The positive predictive values of CRP and ESR in our setting were low (45-58%). We conclude that neither CRP nor ESR is superior to assess disease activity.

Key words: ankylosing spondylitis, disease activity, erythrocyte sedimentation rate, C-reactive protein

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