DISTRIBUTION AND CLINICAL SIGNIFICANCE OF ANTI-HN-RNP-A2 ANTIBODY IN CONNECTIVE TISSUE DISEASES

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Background: The anti-heterogeneous nuclear ribonucleoprotein A2 (hnRNP-A2) antibody is specific for rheumatoid arthritis (RA). But, it is also reported that there is no significant difference between RA and systemic lupus erythematosus (SLE) in terms of the antibody.

Objectives: To investigate the distribution and clinical significance of anti-hnRNP-A2 antibody in connective tissue diseases.

Methods: Serum anti-hnRNP-A2 antibody level was measured by solid-phase enzyme linked immunosorbent assay (ELISA) in 1464 patients with RA, 209 patients with SLE, 204 patients with arthrosclerosis spondylitis (AS), 63 patients with mixed connective tissue disease (MCTD), 133 patients with undifferentiated connective tissue disease (UCTD), 60 patients with Sjogren syndrome (SS), 47 patients with polymyositis/dermatomyositis (PM/DM), and 45 patients with systemic sclerosis (SSc). The positivity rate of anti-hnRNP-A2 antibody was compared among various patient groups, and its correlation to clinical and laboratory parameters and its diagnostic significance were analysed.

Results: The positivity rate of anti-hnRNP-A2 antibody was 38.0% (556/1464), 36.8% (77/209), 3.9% (8/204), 52.4% (33/63), 17.3% (23/133), 5.0% (3/60), 4.3% (2/47), and 8.9% (4/45) in RA, SLE, AS, MCTD, UCTD, SS, PM/DM and SSc, respectively. The rate differed insignificantly between the RA, SLE and MCTD groups (p>0.05), but was significantly higher in other disease groups (p<0.01). The titers of anti-hnRNP-A2 antibody were significantly higher in the RA, MCTD groups than in other disease groups (p<0.01), but differed insignificantly between the RA, SLE, MCTD groups (p>0.05). In RA patients, anti-hnRNP-A2 antibody weakly correlated negatively to anti-Cyclic citrullinated peptide (CCP) antibody (r=−0.135, p<0.01), but correlated insignificantly to age, course of disease, time of morning stiffness, erythrocyte sedimentation rate, C reactive protein, rheumatoid factor, anti-keratin antibody (AKA) and glucose phosphate isomerase (GPI) (p>0.05).

Conclusions: Anti-hnRNP-A2 antibody can be found in various connective tissue diseases, and its positivity rate is relatively high in RA, SLE and MCTD. It is not a RA-specific antibody. In RA, anti-hnRNP-A2 antibody does not coincide with other RA-related serological markers; hence, it may serve as an adjunctive indicator for RA diagnosis.

REFERENCES:

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CLINICAL OUTCOME OF 2 YEARS TREATMENT OF THE EARLY PHASE RHEUMATOID ARTHRITIS

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Background: Few studies have reported long term clinical outcome of patients with early phase rheumatoid arthritis (RA).

Objectives: The objectives of this study were to investigate outcome of 2 years treatment for RA which was started less than 12 months after RA symptoms first appeared and to evaluate prediction factors of poorly controlled patients at 2 years.

Methods: From a total of 1663 RA patients registered in the Akita Orthopaedic Group on Rheumatoid Arthritis (AORA), 66 patients were treated within the first year of RA appearance, and enrolled in this study. Sex, age, RA disease duration, Steinbrocker’s stage, Steinbrocker’s class, medications and DAS28-CRP at the baseline and 2 years post-treatment were evaluated. Furthermore, we compared the group of remission (REM) or low disease activity (LDA) with the group of medium disease activity (MDA) or high disease activity (HDA) at 2 years.

Results: At the baseline, the patients included 13 males and 53 females. Mean age and RA disease duration were 59±8 years and 7±11 months, respectively. Fifty-four, 8, 4 and 0 patients were classified into Steinbrocker’s stage I, II, III, and IV, respectively. Thirty-nine, 25, 2 and 0 patients were classified into Steinbrocker’s class I, II, III, and IV, respectively. Thirty-seven (56%), 24 (36%), and 15 (24%) patients were treated with MTX, DMARDs, and PSL, respectively. In DAS28-CRP, 19 (29%), 13 (20%), 32 (48%), and 2 (3%) patients showed REM, LDA, MDA, and HDA, respectively. Forty-four patients were followed-up for 2 years. At 2 years, 30, 7, 5, and 2 patients were classified into Steinbrocker’s stage I, II, III, and IV, respectively. Thirty-one, 12, 1, and 0 patients were classified into Steinbrocker’s class I, II, III, and IV, respectively. In DAS28-CRP, 33 (75%), 4 (9%), 7 (16%), and 0 (0%) patients showed REM, LDA, MDA, and HDA, respectively. Compared with the group of REM or LDA, the group of MDA or HDA had significantly older age (p=0.018), higher Steinbrocker’s stage (p=0.012) and higher DAS28-CRP (p=0.049) at the baseline.

Conclusions: At 2 years, 75% of patients with early phase RA achieved REM. Older age, higher Steinbrocker’s stage and higher DAS28-CRP at the baseline could be prediction factors of poorly controlled patients at 2 years.

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