V. Milanova, A. Toncheva, N. Ivanovska and P. Dimitrova. THE SIGNIFICANCE OF ANIMAL MODELS OF RHEUMATOID ARTHRITIS

Summary. Rheumatoid arthritis (RA) is a chronic inflammatory disease associated with the destruction of cartilage and bone. Experimental models of RA perform a great platform to study the mechanisms involved in the pathogenesis of the disease. In the present review, most popular animal models of RA are described. Data on experimental models induced by injection of specific antigen, unspecific immunogens and infectious agents or by passive transfer of antibodies are discussed. Investigations on transgenic animals which spontaneously develop arthritis are also included as they show the significance of particular pathway or molecule for the development of RA. The development of novel therapeutic strategies requires intensive studies on RA experimental models to prove their efficacy and side effects.

Key words: experimental models, rheumatoid arthritis, transgenic animals, cytokines, passive transfer of antibodies

Tzv. Petranova and I. Sheytanov. TREATMENT OF RHEUMATOID ARTHRITIS FROM THE PATIENT PERSPECTIVE

Summary. Chronic diseases, to which rheumatoid arthritis (RA) belongs, are often associated with poor compliance and persistence to therapy. For the optimization of these parameters, it is necessary that patients’ perceptions and preferences become a major source of information for the clinical guidelines for treatment of RA. The RAISE (Rheumatoid Arthritis: Insights, Strategies & Expectations) survey is an educational initiative designed to explore the management and treatment (biologic and non-biologic) of RA, from both physician and patient points of view. The results show that biological therapies (Enbrel, Humira, Remicade) offered relief for the most severe symptoms of RA. Significantly more biologic experienced than biologic naive patients were satisfied with their current medication. The most important characteristics of treatment from the patient point of view were evaluated – proven and consistent efficacy between doses, fewer reactions at the injection site, reduced dosing frequency, easier to use device for self-injection and simple instructions. In addition, a summary of Simponi (golimumab) studies in patients with RA is presented. Simponi is a new TNF-α human monoclonal antibody that provides a new opportunity to meet the unmet needs and preferences of patients – a convenient method of administration – subcutaneously, once monthly at the same date, very good therapeutic efficacy, maintained between doses, reduced pain and inflammation at the site of injection.

Key words: rheumatoid arthritis, biologic therapy, TNF-α inhibitors

ORIGINAL ARTICLES


Summary. Systemic lupus erythematosus (SLE) is an autoimmune disease, which affects predominantly women. Estrogens modulate the growth, differentiation and proliferation of lymphoid cells, the synthesis of cytokines and antibodies, as well as the processes of apoptosis. Female sex hormones act on different tissues through the estrogen receptors. The aim of our study was to investigate the role of the polymorphic regions PvuII T/C and XbaI A/G in the estrogen receptor alpha gene (ERα) for the development and clinical characteristics of systemic lupus. 112 women with SLE and 50 controls were investigated. The allele frequency of the two polymorphisms was similar among patients and healthy women. Some relationships between ERα polymorphisms and some of the clinical features of SLE were established. In the patients with genotype ррхх (ТТАА), photosensitivity was less frequent, than in the others, while neurological involvement was not present in patients with genotype PPXX (CCGG). In conclusion, we suggest that PvuII T/C and XbaI A/G polymorphisms of ERα gene are not crucial for the development of SLE, but they presumably modulate the clinical features of the disease.

Key words: systemic lupus erythematosus, estrogen receptor, PvuII, XbaI polymorphism

V. Reshkova, R. Rashkov and I. Milanov. EVALUATION OF THE DEPENDENCE OF PAIN THRESHOLD ON SERUM CONCENTRATION OF THE NEUROMEDIATORS ADRENALINE, NORADRENALINE AND SEROTONIN IN PATIENTS WITH FIBROMYALGIA (POSITIVE FOR IgG EPSTEIN-BARR VIRUS)
Summary. The present clinic observation was conducted in the Rheumatology Clinic for the period September 1 2010-November 1 2010. The pain threshold scores were assessed in 21 patients using a Fisher dolorimeter and thus 3 men and 18 women aged 22-58 years were diagnosed with fibromyalgia (FM) (FM mean duration: 1-10 years). All patients were positive for IgG Epstein-Barr virus (EBV). In that way, only one group of patients was formed. In this group, there were prevailing patients with very high titer of IgG for EBV – in 16 of 21 patients the EBV IgG titers were 5 to 10 times above the normal control level. In 13 of 21 FM patients with high levels of EBV IgG titer (65%), a low concentration of adrenaline was observed (below the normal control level). Only in 6 of 21 patients, the concentration of noradrenaline in plasma was below the normal control level. In testing the concentration of serotonin in patients plasma, there were established low concentrations (up to 50 ng/l) in 8 patients and in 3 patients the concentrations were below the normal range, eg. 11 of 21 patients (50%) had low concentrations of serotonin. Therefore our results revealed a relationship between decreased pain threshold and serotonin. Perhaps even in patients with normal plasma concentrations of serotonin, disturbances in its transport through the blood-brain barrier (BBB) could be observed.

Key words: fibromyalgia, serotonin, adrenaline, noradrenaline
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