REVIEW

R. Shumnalieva and Zl. Kolarov. PATHOGENETIC ROLE OF EPSTEIN-BARR VIRUS AND CYTOMEGALOVIRUS IN INITIATION, MAINTENANCE AND ACTIVATION OF SYNOVIAL INFLAMMATORY REACTION IN RHEUMATOID ARTHRITIS

Summary. The aim of the review is to analyse the data from investigations about the role of Epstein-Barr virus (EBV) and cytomegalovirus (CMV) in the etiopathogenesis of rheumatoid arthritis. It examines both the existence of correlation between viral particles isolated from synovial membrane and antiviral antibodies in the serum of patients and their pathogenetic role in initiating, maintaining and forcing the autoimmune inflammatory response in patients with rheumatoid arthritis.

Key words: Epstein-Barr virus, cytomegalovirus, rheumatoid arthritis, synovial biopsy

D. Tanev, R. Robeva, A. Tomova, Ph. Kumanov, R. Rashkov and Zl. Kolarov. SYSTEMIC LUPUS ERYTHEMATOSUS AND ANDROGENS

Summary. Systemic lupus erythematosus (SLE) is an autoimmune disease that affects mainly women, while the prevalence in men is very low. Therefore, a protective role of the androgens on the autoimmune process has been suggested. In this review, the existing data about the relationships between male sex hormones and clinical signs of systemic lupus have been discussed. The studies in experimental SLE models have shown that the application of testosterone and DHEA decreases the antibody production, protects the animals from a rapid SLE progression and increases their longevity. In humans, the influence of the androgens has been studied for the last thirty years, but the conclusions are still inconsistent. Decreased levels of testosterone and DHEA have been found in men and women with lupus. However, it is not clarified, how these changes affect the autoimmune process. Further investigations are necessary to reveal the interrelations between androgens, immune system and SLE in humans. The results could help the development of new androgen-based therapeutic strategies considering possible benefits and expected side effects.

Key words: immunity, SLE, testosterone, DHEA

ORIGINAL ARTICLES

D. Kalinova and R. Rashkov. ANALYSIS OF NOSOLOGIC BELONGING OF PATIENTS WITH MUSCLE PATHOLOGY IN THE ROUTINE RHEUMATOLOGY PRACTICE

Summary. Muscle pathology includes broad spectrum diseases, which are refered to myopathies. Myopathies are classified in some main groups on the basis of etiopathogenesis – idiopathic inflammatory myopathies – (IIM), drug-induced, endocrine, toxic, metabolic, infectious myopathies, muscle dystrophy. In the rheumatology practice, it is important to differentiate a variety of myopathies on one hand, as to mark off rheumatic diseases characterized by muscle weakness and/or myalgia on the other hand. Aim of the study was to analyse nosologic entity of patients with muscle pathology in the routine rheumatology practice. Sixty patients (47 women and 13 men) were enrolled in this study. Different diagnostic methods were used to diagnosticate the patients. There were determined IIM in 64.9% of patients; muscle dystrophies – 6,7%; endocrine myopathies – 5%; drug-induced myopathies – 5%; toxic myopathies – 1,7%; viral myositis – 10%; Eaton-Lambert myastenic syndrome – 1,7%. Among patients with IIM, there were diagnosed dermatomyositis (DM) in 35,2%; polymyositis (PM) – 29,7%; myositis associated with other systemic diseases (overlap myositis) – 27%; tumor-associated myositis – 8,1%. Among other rheumatic diseases with muscle pathology, three patients with polymyalgia rheumatica and two patients with fibromyalgia were diagnosed.

Key words: nosologic belonging, muscle pathology, rheumatology practice

M. Ivanova, R. Stoiiov, M. Platikanova and I. Manolova. A PILOT STUDY OF TNF-ALPHA SERUM LEVELS IN RELATION TO CLINICAL AND LABORATORY PARAMETERS OF DISEASE ACTIVITY IN BULGARIAN PATIENTS WITH ANKYLOSING SPONDYLITIS

Summary. The aim of our study was to analyse the serum tumor necrosis factor-alpha (TNF-alpha) levels in patients with AS and their relationship with disease activity. An ELISA test was used to analyse serum cytokine TNF-alpha levels in 45 patients with AS. Results were compared with those from 36 healthy
The relationship between serum concentrations of this cytokine and parameters of disease activity in AS patients was also evaluated. No significant difference was found between TNF-alpha serum levels in AS and in controls (mean ± SD, 7.37 ± 17.69; range, 0.3-62.7) and between patients with spinal involvement only (mean ± SD, 7.04 ± 17.61; range, 0.3-62.6; p = 0.524) and those who also had peripheral arthritis (mean ± SD, 7.72 ± 18.18; range, 0.5-62.7), as well. TNF-alpha did not correlate with laboratory or clinical parameters of disease activity – BASDAI, ASDAS-CRP, ASDAS-CYE, physician’s and patient’s global assessment of disease activity, ESR and CRP.

**Key words:** TNF-alpha, AS

---

**R. Rashkov and D. Kalinova.** CLINICAL COURSE AND IMMUNOLOGICAL PROFILE IN PATIENTS WITH DRUG-INDUCED LUPUS

**Summary.** Drug-induced lupus is a form of systemic lupus erythematoses (SLE) with a causal connection between drug and lupus syndrome. Different drugs induce development of systemic lupus erythematoses or make worse clinical course in patients with available clinical symptoms and positive immunology for SLE. There is not a clear distinction in clinical findings between patients with drug-induced lupus and with SLE. Drug-related lupus usually presents with dermatologic and joint findings. The aim of this study was to determine the prevalence of drug-induced lupus in patients with lupus, to analyse clinical and immunology characteristics of this form of lupus, as well as to generalize manifestations, which aggravate prognosis of the disease. One hundred patients with SLE were enrolled in this study. There were used diagnostic criteria of American College of Rheumatology (ACR, 1982), with different diagnostic schemes. We diagnosed drug-induced lupus in 12% of patients. Drug-induced lupus has developed in patients with clinical symptoms of lupus and positive lupus immunology. We found that the leading clinical features are dermatologic, joint, muscular, vascular ones. We determined that manifestations which aggravate prognosis of disease are necrotic vasculitis and damage of the nervous system by type of polyneuritis (Guillain-Barre syndrome). We found antinuclear antibodies in 92%, antihistone antibodies – in 7% and anticardiolipin antibodies – in 33% of patients with drug-induced lupus.

**Key words:** immunological profile, drug-induced lupus

---

**D. Vacheva and M. Ivanov.** MEDICAL REHABILITATION AND OCCUPATIONAL THERAPY APPLIED ON PATIENTS WITH DISTAL RADIUS FRACTURE

**Summary.** In respect to the investigation and reporting on the effect of applying complex rehabilitation program, including labour activities when rehabilitating patients, recovering after a distal radius fracture, we compiled detailed instructions to assist patients with traumas and upper limb troubles in selfservicing. The test for daily activities includes 4 cards: toilet and personal hygiene, dressing and putting on shoes, making and having a meal, different everyday activities. The estimation is in 6 degrees – from 0 till 5. The received results of the investigation and their analysis give us ground to confirm with high statistical significance the medical-social effectiveness of the suggested complex physiotherapeutic and rehabilitation program, that includes labour activities and occupational therapy (instructions to make easier everyday activities) in treatment of patients with a distal radius fracture. We consider that in general the program improved the quality of life of our patients.

**Key words:** rehabilitation, occupational therapy, fracture, distal radius

---

**HELPING PRACTICE**

I. Sheytanov, R. Rashkov, Ts. Petranova, S. Monov, A. Batalov and R. Nestorova.

ULTRASONOGRAPHY OF SMALL JOINTS – DIAGNOSTIC POTENTIALITIES
CONTENTS

REVIEWS
R. Shumralieva and Zl. Kolarov. Pathogenetic role of Epstein-Barr virus and cytomegalovirus in initiation, maintenance and activation of synovial inflammatory reaction in rheumatoid arthritis ................. 5
D. Tanev, R. Robeva, A. Tomova, Ph. Kumanov, R. Rashkov and Zl. Kolarov. Systemic lupus erythematosus and androgens.................................................................................................................14

ORIGINAL ARTICLES
D. Kalinova and R. Rashkov. Analysis of nosologic belonging of patients with muscle pathology in the routine rheumatology practice........................................................................................................... 20
M. Ivanova, R. Stoilov, M. Platikanova and I. Manolova. A pilot study of TNF-alpha serum levels in relation to clinical and laboratory parameters of disease activity in Bulgarian patients with ankylosing spondylitis ....................................................................................................................................... 25
R. Rashkov and D. Kalinova. Clinical course and immunological profile in patients with drug-induced lupus ......................................................................................................................................................... 31
D. Vacheva and M. Ivanov. Medical rehabilitation and occupational therapy applied on patients with distal radius fracture .................................................................................................................................................. 37

HELPING PRACTICE