The dynamics of the cytokine balance in patients with seronegative variant of rheumatoid arthritis during therapy with infliximab

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Rheumatoid arthritis (RA) is an autoimmune disease caused by an imbalance of Th1, Th2 and Th17 lymphocytes and predominance of proinflammatory cytokines TNFα, IL-1β, and IL-6. The most widely used drug in rheumatological practice is anti-TNFα-antibody (infliximab), but the prognosis of treatment and duration of anti-cytokine course to date are not sufficiently understood. In this study, immune status and cytokine production by immunocompetent cells were first evaluated in patients with seronegative articular form of RA during therapy with infliximab. Results. The algorithm was developed to predict the effectiveness of treatment with infliximab in patients with seronegative articular form of RA, which includes monitoring of immune system key parameters, as well as the content of the key proinflammatory cytokines (TNFα, IL-6, IL-1β) in serum and the peripheral blood mononuclear supernatants. The positive dynamics of these indicators during therapy reflects the effective infliximab therapy. (Cytokines and Inflammation. 2012. Vol. 11. № 2. P. 73–76.)

Key words: infliximab, rheumatoid arthritis, anti-cytokine therapy, prognosis of effective therapy, cytokines, immune status.