# CLINICAL COURSE REACTIVE ARTHRITIS DEPENDING ON ADAMTS7 LEVELS IN BLOOD

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Reactive arthritis (ReA) is a joint inflammatory disease that develops in response to a previous infection, predominantly urogenital or intestinal. The disease is characterized by the variability of its clinical course: from reversible arthritis to prolonged and chronic forms with erosive joint damage. In recent years, increased attention has been paid to biomarkers that reflect the activity of inflammation and tissue remodeling processes. One such marker is ADAMTS7 - a metalloproteinase involved in the degradation of the extracellular matrix and the development of erosive changes during inflammation.

Purpose of the research. Assess the clinical features of ReA depending on the level of ADAMTS7 in the blood serum.

Materials and methods. The study included 60 patients with a reliable diagnosis of ReA. Average age - 36 ± 9 years; men - 70%. The level of ADAMTS7 was determined using the ELISA method. Patients were divided into 2 groups: Group 1 (n = 30) - ADAMTS7 level ≤ 10 ng/ml (low/moderate), Group 2 (n = 30) - ADAMTS7 level > 10 ng/ml (high). The clinical activity of the disease, the number of affected joints, the presence of entezites and dactylitis, laboratory parameters (CRP, ESR), and the duration of symptoms were assessed.

Results. The average number of affected joints was: group 1 - 3.1 ± 1.2; group 2 - 6.8 ± 2.0 ($p < 0.001$). The frequency of entezites was 23% in the 1st group and 57% in the 2nd group ($p < 0.05$). The frequency of dactylites is 16% and 43%, respectively ($p < 0.05$). The average level of CRP and ESR was significantly higher in patients with a high level of ADAMTS7 ($p < 0.01$). Patients with elevated ADAMTS7 had a longer course of the disease (average symptom duration - 14.2 ± 5.1 weeks versus 8.5 ± 3.4 weeks in the 1st group; $p < 0.01$). A high level of ADAMTS7 correlated with indicators of inflammatory activity ($r = 0.47$ for CRP, $r = 0.42$ for ESR; $p < 0.05$).

Conclusion. Elevated ADAMTS7 levels in the blood are associated with more pronounced clinical activity of ReA, a greater number of affected joints, entezites, dactylitis, and a prolonged course of the disease. The determination of

ADAMTS7 can serve as a promising biomarker for an unfavorable prognosis and be used to stratify the risk of chronic ReA.