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Changes of Acute-phase Reactants in Systemic Sclerosis During Long-term Rituximab Therapy

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Abstract : Objectives. C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) are associated with severe course, increased morbidity and mortality in systemic sclerosis (SSc). The aim of our study was to assess changes in CRP and ESR in SSc patients during long-term RTX therapy. Methods. This study included 113 patients with SSc. Mean age was 48.1±13 years, female-85%. The mean disease duration was 6±5 years. The diffuse cutaneous subset of the disease had 55% of patients. All pts had interstitial lung disease (ILD). All patients received prednisolone at a mean dose of 11.6±4.8 mg/day, and 53 of them - were immunosuppressants at inclusion. Patients received RTX due to the ineffectiveness of previous therapy for ILD. The parameters were evaluated over the periods: at baseline (point 0), 13±2.3 month (point 1, n=113), 42±14 month (point 2, n=80) and 79±6.5 month (point 3, n=25) after initiation of RTX therapy. Cumulative mean dose of RTX at point 1 = 1.7±0.6g, at point 2 = 3±1.5g, and at point 3 = 3.8±2.4g. The results are presented in the form of mean values, delta(Δ)-difference between the baseline parameter and follow-up point. Results. There was an improvement in studied parameters on RTX therapy. There was a significant decrease of ESR, CRP and activity index (EScSG-AI) at all observation points (p=0.001). In point 1: ΔCRP was 6.7 mg/l, ΔESR = 7.4 mm/h, ΔActivity index (EScSG-AI) = 1.7. In point 2: ΔCRP was 8.7 mg/l, ΔESR = 7.5 mm/h, ΔActivity index (EScSG-AI) = 1.9. In point 3: ΔCRP was 16.1 mg/l, ΔESR = 11 mm/h, ΔActivity index (EScSG-AI) = 2.1. Conclusion. There was a significant decrease in CRP and ESR during long-term RTX therapy, which correlated with a decrease in the disease activity index. RTX is an effective treatment option for SSc with an elevation of acute-phase reactants.

Keywords : C-reactive protein, interstitial lung disease, systemic sclerosis, rituximab
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