

EFFECT OF COMPREHENSIVE TREATMENT MODALITIES ON SYSTEMIC INFLAMMATORY MARKERS IN PATIENTS WITH CHRONIC RHINOSINUSITIS

¹Bokiyev Sh.Sh., ²Xushvakova N.J.

¹Bukhara State Medical Institute, Uzbekistan

²Samarkand State Medical University, Uzbekistan

Introduction. Chronic rhinosinusitis (CRS) is a persistent inflammatory disease of the nasal cavity and paranasal sinuses, often accompanied by systemic inflammatory changes. Laboratory markers such as leukocyte count, erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP) may reflect the activity of the inflammatory process and can be used to assess treatment effectiveness.

Objective. To compare the effects of different comprehensive treatment modalities on systemic inflammatory markers in patients with CRS.

Materials and Methods. The study included 110 patients with CRS who were divided into three groups. Group A (n=40) received standard medical therapy, including antibacterial agents, topical glucocorticosteroids, antihistamines, short-term nasal decongestants, and physiotherapy. Group B (n=34) underwent functional endoscopic sinus surgery (FESS) followed by standard therapy. Group C (n=36) received FESS, standard therapy, and Derinat. Leukocyte count, ESR, and CRP levels were assessed before and after treatment.

Results. Before treatment, all groups demonstrated leukocytosis, increased ESR, and elevated CRP levels, indicating active inflammation. In Group A, leukocyte count decreased from 10.1 ± 0.4 to $7.8 \pm 0.3 \times 10^9/L$, ESR from 20.2 ± 1.6 to 11.1 ± 1.2 mm/h, and CRP from 9.6 ± 1.1 to 4.8 ± 0.9 mg/L ($p < 0.01$). In Group B, the respective indicators decreased from 10.5 ± 0.5 to $6.9 \pm 0.2 \times 10^9/L$, from 21.5 ± 1.4 to 9.2 ± 0.9 mm/h, and from 11.3 ± 1.3 to 3.2 ± 0.7 mg/L ($p < 0.001$). The most pronounced changes were observed in Group C: leukocyte count decreased from 10.3 ± 0.4 to $5.8 \pm 0.2 \times 10^9/L$, ESR from 21.8 ± 1.5 to 6.7 ± 0.8 mm/h, and CRP from 10.9 ± 1.0 to 1.9 ± 0.5 mg/L ($p < 0.001$).

Conclusion. Standard medical therapy reduced systemic inflammatory activity in CRS; however, the addition of FESS produced a more pronounced effect. The combination of FESS, standard therapy, and Derinat was associated with the greatest reduction in leukocyte count, ESR, and CRP, suggesting higher laboratory effectiveness in suppressing systemic inflammation.