Moskalets O.V.**Predictors of outcomes of postoperative inflammatory reactions after intraocular lens implantation***Moscow Regional Research Clinical Institute named after M.F.Vladimirskij
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Introduction. Exudative iridocyclitis and endophthalmitis after cataract extraction with implantation of intraocular lens (IOL) presently remain an urgent problem in ophthalmosurgery. According to various authors, the incidence of postoperative iridocyclitis ranges from 1 to 37.8% [1]. The severity of the course, frequent relapses, insufficient the effectiveness of common therapy force us to continue the search for more effective methods for predicting the development of these complications, including laboratory assays. Various markers of inflammation and endothelial dysfunction, as well as autoantibody levels are quite promising [2,3,5].

In connection with the above, the purpose of this study was to determine the value of some immunological markers in exudative iridocyclitis and endophthalmitis after pseudophakia.

Material and methods. The study included 26 patients (10 men and 16 women) aged 45 to 80 years with exudative iridocyclitis and endophthalmitis developed after phacoemulsification. Laboratory studies were performed twice (on the 2-3 day after admission to the hospital and before discharge) and included determination of the level of antibodies to double-stranded DNA (anti-DNA), soluble adhesion molecules (sICAM-1, sVCAM-1) and neopterin. The follow-up period was 6 months. We used test systems from IBL (Austria), Orgentec (Germany), Bender MedSystems (Austria).

Results. Exudative reactions (ER) occurred in all patients at different times after surgery (from 2 to 14 days). The severity of ER distribution was as follows: II degree - 12 patients (46,1%), III degree - 11 patients (42,3%), IV degree - 3 patients (11,3%).

The initial levels anti-DNA was increased in 14 (53,8%) patients, neopterin in 11 (42,3%), sICAM-1 in 3 (11,5%), sVCAM-1 in 5 (19,2%). No correlations with the timing of the development of EVR and its severity were revealed. There was a large scatter of individual indicators.

Monitoring of these indicators demonstrated, that normalization of anti-DNA levels occurred in 9 patients, while in 5 it significantly decreased compared to the initial level. At the same time, in 1 patient with severe postoperative endophthalmitis, this indicator increased even more. This fact may be due to increased apoptosis.

In 6 patients neopterin levels decreased to normal ranges but in 2 cases it remained elevated. It should be noted that in 1 patient this indicator before discharge from the hospital increased significantly compared to the initial normal value, although the course of the disease was favorable and no complications and relapses were noted later.

Patient monitoring revealed the following. In 1 patient with endophthalmitis, the most unfavorable outcome was eye removal. At the same time, he also had the highest initial level of sVCAM-1 (3472 ng / ml), a high level of neopterin (20.6 nmol / L), both of which rapidly increased. The second patient with endophthalmitis had an initially high level of anti-DNA; before discharge, it increased by almost 5 times, but the remaining indicators practically did not exceed normal values. The course of the disease was protracted, but in the end, the outcome was favorable. Finally, in the third patient, admission showed rather high levels of antibodies to nDNA (93.5 U / ml) and neopterin (27.7 ng / ml), but by the end of treatment they returned to normal, which coincided with positive clinical dynamics. No further relapses were noted. Vision loss as the outcome of acute uveitis was associated with a high level of sICAM-1 (610 ng / ml), a moderate increase in neopterin and antibodies to nDNA upon admission. At the same time, a moderate increase in the level of sVCAM-1 was noted in the

dynamics. Finally, we observed the case when a patient with acute uveitis, normal and favorable course of the postoperative period after 1.5 months developed severe endophthalmitis, requiring repeated hospitalization and prolonged drug therapy.

Conclusion. Monitoring the level of sICAM, sVCAM, neopterin and anti-DNA antibodies may be useful to predict course of postoperative ER in patients with pseudophakia. The absence of changes in immunological parameters with a pronounced ER can be regarded as inadequate immune response and risk relapse.

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The first Russian professor of obstetrics N.M. Maksimovich-Ambodik

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Childhood and youth

Nestor Maksimovich Maksimovich-Ambodik, the future outstanding figure of Russian science, was born in the family of a priest on November 15, 1744. The first stage of acquiring knowledge was the school at the church parish, then it continued at the Kyiv-Mohyla Academy, where he studied theology (1757-1768).

Figure 1