CLINICAL SIGNIFICANCE OF HERPES VIRUS INFECTION IN THE ASSESSMENT OF FORECAST POSTOPERATIVE COURSE SURGICAL TREATMENT OF ISCHEMIC HEART DISEASE

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The analysis of the characteristics of the clinical course of postoperative surgical treatment of coronary artery disease in patients with persistent herpes virus infection. Forvalues of specific immunoglobulins to herpesviruses in excess of diagnostically significant result of the critical optical density for IgM - 1,1-1,2 and IgG - in 1,4-1,7 times in patients with post-operative period can be predicted debut pericarditis after coronary artery bypass grafting.
Keywords: coronary artery bypass, post-operative period, herpesviruses, postperikardiotomny pericarditis.

Introduction. The appearance of pericarditis complicates the clinical course of post-operative period and the outcome of the disease (10-40% of all surgical procedures on the heart) [1,3,5]. It is known that the trauma of the heart tissue during surgery may contribute to the development of the local jet traumatic pericarditis with a small accumulation of fluid, fast, its dispersal (within 2 or 3 days) and remitting inflammatory events in the pericardial shirt. Surgical treatment is accompanied by immune disorders caused by traumatization of the heart tissue, the use of cardiopulmonary bypass, hypothermia, stress reactions patient. When immune disorders, and hormone therapy herpes infection develops more and more characterized by severe, due to lack of immunity or excessive immune response [2,3,4].

Objective: To evaluate the value of the activity levels of specific immunoglobulins IgM and IgG antibodies to herpes simplex virus in predicting debut postperikardiotomy exudative pericarditis after surgical treatment of coronary heart disease.

Materials and Methods: Subjects: blood serum and pericardial fluid 25-patients (18 men, 7 women) after surgical treatment of coronary artery disease at the age of 46,9 ± 2,4 years. Comparison group: 22 patients (15 men, 7 women) with pericardial no inflammatory effusion at the age of 49,0 ± 1,8 years. The control group of 17 healthy volunteers (11 men, 6 women). Subjects assembled in the dynamics of the 5-th and 15-th day after coronary artery bypass surgery. IgM and IgG content by herpesviruses in serum and pericardial fluid was determined by a two-site enzyme-linked immunosorbent assay (ELISA) using a reagent kit and a 96 tablet of stripinge definitions immobilized antigen on the surface of the wells of the purified and inactivated virus HSV_{1+2} (from "DSL", USA). Processing of the studied material: a spectrophotometer «ELx 800 Universal Microplate Reader» company «Bio-Tek instruments INC» (USA).

Results and Discussion: Indications for surgery determined the results of the selective coronary angiography and myocardial scintigraphy. According to these instrumental investigations marked stenosis of the left coronary artery of a 50% (30% of patients), one of the main branches of the left coronary artery (30% of patients), or right coronary artery (70% of patients), more than 75%, the combination of the left and right stenoses coronary artery disease (30% of patients), more than 50%. Were shunted from 3 to 5 of the coronary arteries. Evaluation follow-up data that are identical to the principles of pre -, prevention of post-operative complications were not significantly different in patients with a favorable course of the postoperative period and the development of autoimmune postperikardiotomy pericarditis. The development of autoimmune postperikardiotomy pericarditis observed in the 2-3rd day after coronary artery bypass surgery with no signs of inflammation and wound sepsis and has a more severe clinical course, duration of storage, and (or) Percy Stents effusion (within 10 to 15 days) .

The main clinical features of the syndrome were postperiperikardiotomy increase in body temperature from 37.1 to 38.30 C, weakness, cough, shortness of breath, irregular heart rhythm and conduction of pain, discomfort in the left side of the chest and the heart, pericardial rub, pleural friction rub; mixed wet and dry rales. Postperikardiotomy confirmed the diagnosis of pericarditis traditional instrumental data (ECG, X-ray, echocardiogram) and laboratory testing. On the echocardiogram in the postoperative period (CABG-1, CABG-2) there is an increase ejection fraction 40% and above, increased myocardial contractility with in-

crease in the minute and stroke volume, the lack of zones hypokinesia of the left or right ventricle (80%). In the study of patients with immunograms postperikardiotomy pericarditis notes an increase in titer of some non-specific immunoglobulins. In 33% of patients during clinical postperikardiotomy pericarditis different progressive accumulation of fluid and long-term acute character, resistant to drug therapy. Patients underwent puncture with subsequent catheterization pericardial cavity shirt. In the analysis of the pericardial puncture exudate detected high antigen to herpes simplex virus in excess of diagnostically significant result of HSV IgM to 1.04 times ($p < 0,003$), while the level of IgG antibodies to HSV was not diagnostically significant. Holding a special enzyme immunoassay detection of specific immunoglobulins revealed their high diagnostically significant titers in serum and pericardial fluid to the most common ekssudatprodutsiruyuschim cardiotropic herpesviruses in 100% of patients with autoimmune postperikardiotomy pericarditis. Repeated studies IgM immunoglobulin levels tends to decrease (in the serum: 1,203 ± 0,056 and 1,11 ± 0,071, respectively) and immunoglobulins IgG - to increase (serum: 1,69 ± 0,077 and 1,69 ± 0,075 respectively) ($p < 0,005$). Indicators of specific immunoglobulins remain high of a control group of donors and patients

Detection of serum and pericardial fluid of diagnostically significant titers of specific antibodies in patients with ischemic heart disease suggests a role as a source of gerpesviruses not arise, as the factors supporting the inflammation and stimulate inflammatory exudative processes in the pericardial tissue. The development of the autoimmune process stimulates the growth of activity in the body dormant infection of gerpesviruses. Herpes simplex virus, highlighting endotoxins tropic for pericardial shirt, support the inflammation of the pericardium, as well as a sharp increase in titers of immunoglobulin M stimulate the aggravation of persistent infection. The combined mechanism of injury pericardial tissue exacerbates the severity of the patient's condition, enhances the degree of intoxication, and worsens the prognosis of the disease. In the postoperative period, 50% of the observed stihanie inflammation and resorption of fluid in the pericardial cavity in one month. 40% of patients were found recurrent exudative pericarditis.

CONCLUSION

Early marker debut postperikardiotomy pericarditis is: preservation or sub-febrile after 5-days after heart surgery on immunosuppression (lymphocytopenia, Monocytopenia, gipolaktoferrinemii) and significantly higher diagnostically significant titers of immunoglobulin IgM to herpes simplex virus in serum and pericardial fluid ($p <0,03$). To predict the clinical course debut postperikardiotomy pericarditis analysis can be used in immunological serum equivalent, as in the pericardial fluid.

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