

Qualitative Cardiac Fatty Acid Binding Protein POC-Test in an Estimation of Myocardium Damages at Cardiosurgical Patients

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The aim of study:

To determine whether serum levels of cardiac type fatty acid binding protein (cFABP) are related to myocardium ischemia in patients undergoing cardiopulmonary bypass (CPB) surgery.

Methods:

cFABP by qualitative express test "КардиоБСЖК" (Russia) was measured in 40 patients: 10 – CABG with CPB, 10 – CABG with beating heart CPB, 10 - of-pump CABG, 10 – valve replacements with CPB before and after surgery, in 12 hours, for 2 and 3 days after surgery.

Results:

Before surgery the test was negative in all cases. In the end of operation in all cases the test has been regarded as positive. At patients after valve replacement surgery intensity of coloring of a test strip was considerably above, than after CABG. Depending on a kind CABG expressiveness of coloring increased in the following sequence: of-pump CPB beating heart CPB CPB. Only at 2 from 10 persons with CABG changes on an electrocardiogram were marked. The test remained positive at 50 % of patients in 12 hours after operation, and at 40 % from them changes on an electrocardiogram were marked. The same picture was and for 2 days after surgery. For 3 postoperative days the positive test was registered at 20 % of patients against remaining changes on an electrocardiogram. At 80 % of patients the test was negative, including one patient with a perioperative myocardium heart attack.

Conclusions:

Intensity of coloring of a test strip is more expressed at valve replacement surgery that is connected with a straight line myocardium «surgical trauma». At CABG the maximum intensity of coloring is marked at the operations with CPB. At electrocardiograms-signs of a myocardium heart attack after cardiac surgery the positive test "КардиоБСЖК" can serve as a method of an estimation of necrotic process dynamics.