MONITORING OF HEMOSTASIS DISORDERS IN CARDIAC SURGERY

Milan Lazarević¹, Dragan Milić^{1,2}, Mladjan Golubović³, Tomislav Kostić^{2,4}, Miodrag Djordjević⁵

¹Clinic for Cardiac Surgery, Clinical Center Niš, Serbia
²University of Niš, Faculty of Medicine, Serbia
³Clinic for Anaesthesia and Intensive care, Clinical center Niš, Serbia
⁴Clinic for Cardiovascular Diseases, Clinical Center Niš, Serbia
⁵Clinic for Endocrine Surgery, Clinical Center Niš, Serbia

Contact: Milan Lazarević 17/9 Ćirila i Metodija St., 18000 Niš, Serbia Email: dr_m.lazarevic@hotmail.com

Bleeding during and after cardiopulmonary bypass is a multifactorial and potentially lethal complication. That is why one of the most difficult tasks in cardiac surgery is the establishment of a timely, physiological hemostasis. The aim of this study was to diagnose the most common coagulation disorders in patients who underwent surgical revascularization of the myocardium (their frequency, follow-up complications) and therapeutic care of them. The pros-pective survey included 100 respondents (22 female females-22.0% and 78 male respondents-78.0%), who were subjected to single, double and triple surgical revascularization of the myocardium. Preoperative as well as 3 hours and 24 hours postoperatively determined the following parameters: blood count, coagulation status, platelet function parameters, rotational thromboelastometric parameters, blood and blood product use, use of synthetic hemostatic agents. The most commonly diagnosed hemostasis disorders are preoperative and postoperatively disrupted platelet function (up to 31% of patients), postoperative extrinsic coagulation factor concentration depletion (postoperatively) (21% of patients), intrinsic factor coagulation activity disorder (23% of patients after surgery) and disturbed concentration of functional fibrinogen and impaired fibrin clot polymerization in 17% of patients following surgery. During the study, 13% of patients received a cryoprecipitate transfusion after surgery, 10% of patients received frozen fresh plasma, 22% were transfunded with platelet concentrates, 20% of patients received desmopressin acetate, while 3 patients received a prothrombin complex concentrate in the postoperative course.

Acta Medica Medianae 2019;58(4):141-151.

Key words: cardiac surgery, hemostasis, bleeding