

241. CARDIAC SURGERY RISK IN AORTIC STENOSIS PATIENTS

Author: **Egor Dede**

Co-author: Dodul Cristina

Scientific adviser: Snejana Vetrila, MD, PhD, Associate Professor, Department of Internal Medicine, Cardiology, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. Aortic valve replacement (AVR) is the definitive therapy for severe aortic stenosis. Cardiac surgical mortality has decreased significantly over the last 15 years. Currently operative mortality of isolated AVR is ~2–5% in patients <70 years and 5–15% in older adults. Factors associated with an increased operative risk include cardiac-related factors, such as higher functional class, emergency operation, LV dysfunction especially in the absence of contractile reserve, pulmonary hypertension, co-existing coronary disease, atrial fibrillation, previous cardiac surgery, and factors related to demographics (older age, female) or to associated comorbidities, in particular COPD, renal insufficiency, and peripheral arteriosclerosis. EuroSCORE II risk stratification is useful for predicting mortality during medium-term follow-up.

Aim of the study. To assess the risk of specific postoperative complications, perioperative mortality and lengths of hospital stay in the context of cardiac surgery.

Materials and methods. We conducted a prospective transverse study that included 21 patients with severe aortic stenosis. The patients were examined according to a questionnaire, included general data, electrocardiography, echocardiography, angiography of coronary artery; EuroSCORE II was performed.

Results. The average age of the study group was 64,8 ±0,07 (48-77) years, including 13 (61.9%) women and 8 (38.1%) men; 6 (28.6%) – from the urban area, 15 (71.4%) – rural; employees - 6 (28.57%), disabled - 6 (28.57%), retired - 9 (42.85%). Diabetes mellitus - 4(19.04%); moderate renal impairment 17(80.9%), sever -2 (9.5%); poor mobility 2 (9.5%); moderate pulmonary hypertension - 10(47.6%), severe -7(33.3%); NYHA II - 6(28.5%), III-14 (66.6), IV-1 (4.8) patients; coronary artery disease - 4 (19.04%); surgery in the anamnesis 2(9.52%). Echocardiography showed reduced ejection fraction (EF) in 7 (33,3%) patients, mean range EF - 1 (4,7) and normal EF -13 (61,9%) patients. According to EuroSCORE II in the study group the average risk of specific postoperative complication and perioperative mortality in the study group was 4,51% (1,9-10,6%). Low risk was in 1(4.76%) patient, mean risk - 4 (14.28%), mean-high risk - 4 (14.28%), high risk 8 - (38.1%) patients and 4 (14,28%) patients had very high risk.

Conclusions. Patients with aortic stenosis and indications for aortic valve replacement has a high perioperative risk caused by reduced ejection fraction, pulmonary hypertension, heart failure and impaired renal function.

Key words: Aortic stenosis, Aortic valve replacement, EuroSCORE II