**Results and discussion.** The operation times in both groups amounted to 232,2 and 227,9 minutes respectively. In the first group, the average number of distal anastomomoses amounted to  $3,12\pm0,7$  per patient (2–6 grafts), while in group II  $-3,13\pm0,8$  (1–5 grafts). In patients of I group significantly more was the need for inotropic support in the postoperative period (51,5% versus 26,8%), the time of ventilation (6,8 $\pm4,1$  versus  $5,0\pm2,2$  hours), the ICU stay (49,2 $\pm22,4$  vs.  $46,6\pm18,8$  hours), the duration of the hospital stay after surgery (8,2 days versus 6,8 days). The frequency of nonfatal complications in both groups amounted to 18,5% versus 7,2% in group II (p=0,074). The mortality in the first group amounted to 1.1% (two

patients) at the expected EuroScore 7.3%, and in group II -0.8% (two patients) with the expected 1.9%. There were no statistically significant differences in the mortality rate between the groups (p=0.198).

**Conclusions.** Although off-pump myocardial revascularization in patients with high surgical risk is accompanied by a higher need for inotropic support, a slight extension of the time of ventilation and the hospital stay after surgery, and also by the increase in the frequency of nonfatal complications, it is not accompanied by a statistically significant increase in mortality. Thus, this method is a safe method in terms of complications and mortality.

## **«SURGICAL REMODELING OF THE HEART» IN MULTI-VALVULAR DISEASES**

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**Objective.** The purpose is to present results of surgical remodeling at rheumatic multivalve heart diseases.

**Methods.** There were executed 64 operations. Male – 15, female – 49, age 42,1±11,7 years old. Mitral-tricuspid disease with enlarged Left Atrium – 33, Mitral-aortal-tricuspidal disease – 19, mitral-aortal-tricuspidal disease with enlarged LA-12. On MV there were following haemodynamic infringements: MS-34, Mitral regurgitation – 20, mitral restenosis – 10. On the aortal valve: AS-10, aortal disease without the accurate prevalence – 21. On the tricuspidal valve: combined tricuspidal stenosis with prevalence of insufficiency – 48, TS-6. The term of «Surgical Remodeling of the Heart» we includ kinds of operations when 2 or 3 valves correction with left atrium reduction are done.

**Results.** Correction of 2valves with atrioplastic of LA is executed at 33,3 valves – at 19,3 valves with atrioplastic LA-12. At correction of a pathology of valves following kinds of interventions are executed.

There were done 24 MV prosthetics with preservation of MV basic chords, at 40 – multicomponent MV repeir with annuloplasty with a band from two layers of vascular graft. Aortal Valve reconstruction was done at 25 (by Carpentier – 22, by ElKhury-3), at 25 prosthetics of AV. Annuloplasty of tricuspid valve was done at 48 by DeVega, by Doty – 16, 24 cases were taken further TV comissuroplastic. At 45 patients were done LA atrioplastic with one-stage suturing of the LA appendage (by Kawazoe-31, by «Mercedes» – 12, by Sinatra – 1), suturing of LA appendage – 28, thrombectomy from LA-10. Time of CPB was 140,3±35,5 min, cross-clamp time –105,8±24,3 min. Hospital mortality – 1,5% (n=1).

**Conclusions.** Surgical remodeling at rheumatic multivalve heart diseases, including multicomponent correction 2 and 3 valves in a combination to one of reduction methods at left atrial, allows to restore normal functional indicators of heart with good nearest results.

## ИНТРАОПЕРАЦИОННАЯ ОЦЕНКА КРОВОТОКА ПО КОРОНАРНЫМ ШУНТАМ МЕТОДОМ УЛЬТРАЗВУКОВОЙ ФЛОУМЕТРИИ

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**Введение (цели/задачи).** Оценить результаты интраоперационной флоуметрии коронарных шунтов у больных, перенесших прямую реваскуляризацию миокарда.

Материал и методы. В исследование вошли 126 пациентов, оперированных в ОССХ НМИЦ Кардиологии Минздрава РФ в 2018 году. Всем больным выполнялось коронарное шунтирование