было выявлено ДД ($p=0,362$). Из 70 пациентов с СД 32 пациента получали β -блокаторы (метопролол 12,5-25 мг 2 раза в день), а 38 пациентов получали ивабрадин (5-7,5 мг 2 раза в день) для контроля ЧСС. У больных с СД, получавших β -блокаторы, в раннем послеоперационном периоде у 8(25,0%) пациентов была ДДЛЖ II степени, у 18(56,2%) пациентов была ДДЛЖ I степени, а у 6(18,8%) пациентов ДД выявлено не было. До конца исследования количество больных без ДД не изменилось. Через 6 и 12 месяцев количество больных с ДДЛЖ I и II степеней составило 21(65,6%) и 5(15,6%) пациентов соответственно. Из 38 больных с СД, получавших ивабрадин, в раннем послеоперационном периоде у 6(15,8%) пациентов была ДДЛЖ II степени, у 22(57,9%) пациентов ДДЛЖ I степени, а у 10(26,3%) пациентов не было выявлено ДД ($p=0,554$). Через 6 месяцев после реваскуляризации количество пациентов без ДД составило 11(28,9%) человек. У 24(63,2%) пациентов была ДДЛЖ I степени, а у 3(7,9%) пациентов ДДЛЖ II степени ($p=0,434$). Через 12 месяцев количество пациентов с ДДЛЖ I и II степеней составило 25(65,8%) и 2(5,3%) человека соответственно. Количество пациентов без ДД не изменилось и составило 11(28,9%) человек ($p=0,271$).

Выводы. Нарушения ДФЛЖ (85.7%) чаще встречаются у пациентов с СД II типа, чем у пациентов без СД (65.3%). Результаты эхокардиографических исследований, проведенных на различных этапах хирургической реваскуляризации, показали, что ДДЛЖ частично обратима в обеих группах. Реваскуляризация приводит к уменьшению степени ДД, уменьшению числа пациентов с ДДЛЖ и не зависит от препаратов, выбранных для контроля ЧСС.

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Comorbidity characteristics of the patients before CABG surgery

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Key words: CABG, comorbidities, preoperative patients

Background.

It is known that patients with comorbidities are at higher risk for adverse events after coronary artery bypass graft (CABG) surgery.

There is no standardised information about comorbidities of the patients before coronary artery bypass graft (CABG) surgery. In literature comorbidities of the patients presented according to the ICD-10 classes, or nosological forms. It has been shown that 31.8 of 100 patients have had diabetes mellitus, 23.3 peripheral artery diseases, 1.4-stroke, 85.9 patients had arterial hypertension, 10.4 – chronic kidney diseases, 27.6 – digestive organs' diseases, and 2.8 respiratory system diseases (5/1).

Another research conducted in Australia revealed myocardial infarction in preoperative patients' history (19.2%), stroke (1.4%), diabetes mellitus (17.9%), renal failure (3.3%).

Additionally, Charlson's comorbidity index was measured and was about 1,38 in observed patients' group (12/1).

Methods and results.

We used the retrospective data of the 303 patients operated in 2015-2016 years in Central Hospital of Oil workers, Baki, Azerbaijan. Clinical characteristics (age, gender, cigarette, alcohol consumption, body mass index, systolic and diastolic blood pressure, heart rate, degree of arterial hypertension, functional classes and duration of ischemic heart disease, comorbidities, the results of laboratory and instrumental examinations) has been obtained from the histories of the patients. The classification of the Global Health Organisation was used for division of the patients for the groups according to the levels of the systolic and diastolic arterial pressure. The level of the stable exertional was assessed in accordance with Canada Cardiovascular Society classification. Patients were distributed on gradation of clinical characteristics.

The results showed exertional angina-44,9%, unstable angina-55,1%, arterial hypertension – 43,2%, diabetes mellitus – 42,9%, fatty liver – 27,7%, pulmonary diseases-19,8%, kidney diseases – 11,2%, prostate diseases – 9,6%, cholecystitis – 10,2%, peripheral artery disease-3,3%, gastric or duodenal ulcer in 1% of preoperative patients. Charlson's comorbidity index was 3,5 in medium: less than 3 points-24,1+-2,5%, 3-5,0 points 33,7+-2,7%, 5,1 and more points – in 42,2+-2,8% of the observed patient group.

Conclusions

Results of the research showed that preoperative CABG patients in our research had a lot of different comorbidities and high comorbidity index.

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Effects of extracorporeal blood purification techniques on cytokine levels in patients with gram-negative sepsis

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Sepsis is one of the main causes of death in critically ill patients. According to the literature, mortality ranges from 40 to 70%, and in sepsis caused by gram-negative microflora it is twice as high [1,2]. The key element in the pathogenesis of gram-negative sepsis is the release of a large amount of bacterial endotoxin - lipopolysaccharide (LPS). The response to the penetration of endotoxin into the bloodstream is the production of proinflammatory cytokines (TNF- α , IL-1, IL-6). However, if the defense mechanisms fail, it becomes uncontrolled, as a result a systemic inflammatory reaction occurs, accompanied by impaired coagulation, increased endotoxemia, endothelial dysfunction, tissue damage and the development of multiple organ failure [1, 6, 6]. Thus, the efficient removal of endotoxin from patient's blood is very important in the clinical medicine and in the last years interest around the use of extracorporeal blood purification techniques has increased. The choice of a specific method of purification and the moment for its implementation still remains the subject of scientific discussions [8, 9, 11]. One of the promising methods that have emerged in recent years is the coupled plasma filtration adsorption (CPFA). It was established that the sorbent is capable of binding a whole range of cytokines, in particular IL-1, IL-8, IL-6, gamma IFN, TNF- α , as well as complement components C3a / C5a and endotoxin of gram-negative bacteria [7, 10]. Another promising method is the selective adsorption of LPS using a specially synthesized polypeptide with a strong selective potential for LPS. There are first reports that the use of this method in the early stages of the development of endotoxemia contribute to blocking the trigger signal and, accordingly, prevent cytokine hyperproduction and the development of multiple organ failure [2,4].

The aim of this preliminary study was to evaluate the levels of proinflammatory cytokines (TNF- α , IL-1, IL-6), soluble receptors for cytokines (an antagonist of the IL-1 receptor (pa IL-1), soluble IL-6 receptor (pRIL- 6), soluble receptor of TNF- α (rrFNO- α)) and neopterin