

COMPARATIVE ANALYSIS OF INTENSIVE CARE STRATEGIES IN PATIENTS WITH ACUTE CORONARY SYNDROME FOLLOWING X-RAY-GUIDED ENDOVASCULAR INTERVENTION

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Annotation. Coronary artery disease (CHD) remains the leading cause of death in elderly patients. Recently, centers for revascularization therapy have been opened in almost all regions of our country. In particular, percutaneous coronary interventions (PCI) are used to effectively manage patients with ACS and PICS to improve the quality of life. These so-called endovascular interventions are currently a highly effective treatment method that can significantly improve the condition of patients and increase their tolerance to physical activity, return people to normal everyday life.

In this article, a retrospective analysis was made of elderly and senile patients who underwent percutaneous coronary intervention with various types of stenting. The analysis revealed that the majority of patients were diagnosed with ACS. More than 337 endovascular interventions were performed in 163 patients.

Keywords: percutaneous coronary intervention, stenting, acute coronary syndrome, postinfarction cardiosclerosis

Relevance. The problem of coronary heart disease (CHD) is in the focus of scientific research, because the consequences of atherosclerosis of the coronary vessels lead to almost half of the deaths of the population [18, 19]. Recently, indications for myocardial revascularization in this group of patients have been expanding, which allows increasing exercise tolerance, significantly reducing the risk of recurrent myocardial infarction, and increasing long-term survival. The advanced

age of the patient is often associated with a large number of comorbidities, as well as with high risks of cardiac surgery [11, 20]. In this regard, it became necessary to classify the age groups of the population.

The World Health Organization (WHO) adopted a classification of age groups approved by the Congress of Gerontologists and Geriatrics, the entire population over 50 years old is divided into four age categories: 1) mature age - 45-59 years; 2) old age - 60-74 years; 3) senile age - 75-90 years; 4) centenarians - 90 years or more [12, 21]. In elderly patients with severe forms of chronic coronary heart disease (CIHD), conservative methods of treatment can not always provide adequate control of anginal symptoms of the disease and reduce the risk of coronary events. In such cases, interventional interventions with coronary artery revascularization are the non-alternative methods of choice. They are the "gold" standard in the treatment of patients with severe forms of CIHD and not only relieve them of anginal symptoms, but also increase survival. In this regard, there are data according to which the authors argue that the operations of choice for patients of older age groups are endovascular methods, which have minimal operational risk, and also reduce the risk of developing acute myocardial infarction (MI) in the late postoperative period [5, 16, 19]. The detection of coronary artery disease in the elderly is facilitated by the high incidence of stenosing coronary atherosclerosis [9, 17]. Percutaneous coronary intervention does not reduce mortality, but improves the quality of life, especially in severe angina [4, 10]. Modern revascularization technology allows interventions even in patients aged 85 years and older without compromising efficiency and with acceptable risk [2, 15]. In patients aged 75 years and older, as well as in younger patients, radial access reduces the risk of bleeding and complications at the vascular access site [6, 8]. Active discussions regarding the benefits of stents of various modifications have not yet been completed. According to the RESEARCH and T-SEARCH registries, implantation of drug-eluting stents in patients over 80 years of age has reduced the risk of vascular events by 50% compared with holometallic stents [1, 7, 11]. When choosing stents, one can take into

account information about the greater safety of modern polymeric stents that secrete everolimus (Xience) or zotarolimus (Rezolute) [3, 13].

Thus, the diagnosis and treatment of coronary artery disease in elderly and senile patients requires knowledge of the characteristics of the aging organism, the peculiarities of the manifestations of the disease in old age, the increased risk of treatment complications, which can help practitioners more successfully control this dangerous disease.

Objective: To evaluate the possibilities of percutaneous coronary intervention as one of the methods of managing patients with chronic coronary heart disease.

Materials and methods: We conducted a retrospective analysis of elderly and senile patients who underwent PCI from January 1 to November 1, 2021 according to the data of the Samarkand Regional Regional Branch of the Republican Specialized Scientific and Practical Medical Center for Cardiology. A total of 163 patients were analyzed, who underwent interventional intervention (PCI) using the radial approach 96.32% (n=157) and other approaches 3.68% (n=6). Men accounted for 68.1% (n=111), women 31.9% (n=52).

The mean age was 63.46. Of these, the average age (45-59) was 28.83% (n=47), the elderly (60-74) - 63.8% (n=104) and the senile age (75-90) - 6.75% (n=11).

The majority of patients were diagnosed with coronary heart disease: postinfarction cardiosclerosis (PICS) - 31.9% (n=52), diagnosed with acute coronary syndrome (ACS) with ST segment elevation - 28.83% (n=47), diagnosed with acute coronary syndrome without ST segment elevation - 13.49% (n=22), with myocardial infarction 8.59% (n=14), with a diagnosis of coronary artery disease: angina pectoris FC 3 17.79% (n=29).

During the study, the right type of blood circulation in 130 patients was 79.7%, the balanced type in 22 - 13.6% and the left type of blood circulation in 11 - 6.7%. The indication for endovascular intervention (EV) was the presence of acute coronary

syndrome, as well as angiographic presence of coronary artery stenosis of more than 70%. A total of 337 PCIs were performed in 163 patients. Recanalization of coronary artery occlusions was performed in 50 (30.67%) patients, balloon angioplasty - in 69 (42.33%) patients, circumflex branch stenting (OB) - 50 (30.67%), right coronary artery (RCA) stenting - 66 (44.49%), stenting of the left coronary artery (LCA) - 4 (2.45%), stenting of the anterior interventricular branch (ALV) - 93 (57.05%), stenting of the diagonal branch (DV) - 5 (3.07 %) of patients. Clinically, a good result was the absence of angina and increased exercise tolerance.

In this cohort study, all patients underwent only coronary artery stenting; coronary artery bypass grafting was not taken into account. There were no lethal cases and serious complications during the intervention and after it during the stay in the hospital.

Results. According to these indicators, it can be seen that the majority of patients were diagnosed with acute coronary syndrome 69 patients (42.32%). It is necessary to study the comparative long-term follow-up of patients with a diagnosis of acute coronary syndrome with and without ST segment elevation, who underwent coronary artery stenting, and patients with the same diagnosis, who were observed on basic therapy. The second place in coronary artery stenting was occupied by patients with postinfarction cardiosclerosis of elderly and senile age - 52 patients (31.9%). All patients before and after PCI were prescribed statins, double or triple anticoagulant therapy.

Conclusions. The importance of stenting patients with ACS for the prevention of myocardial infarction and all the resulting severe complications in elderly and senile people, in whom a high level of comorbidity is likely to be quite high, while the need for stenting in patients who have had myocardial infarction with postinfarction cardiosclerosis raises many questions. It is necessary to study the condition of patients according to the data of a long-term 6-month follow-up who underwent stenting of the elderly and senile age and are on constant therapy with statins, antiplatelet agents and anticoagulants.

Literature

1. Alyavi, B., & Uzokov, J. (2018). TCTAP C-156 Successful Percutaneous Coronary Intervention of a Left Circumflex Artery Departing from the Right Coronary Sinus. *Journal of the American College of Cardiology*, 71(16 Supplement), S225-S226.
2. Аралов У.А. Жониев, С. Ш., Рахимов, А. У. Қалқонсимон без жаррохлигида операция олди тайёргарлик усуллари самарадорлигини ошириш [Текст] / А.У. Аралов, С. Ш. Жониев, А. У. Рахимов // Проблемы биологии и медицины. — 2015. — № 1. — С. 11-14.
3. Joniev S.Sh., Rakhimov A.U., Comprarison of methods of preoperative preparation in theryoid gland / Joniev S.Sh., Rakhimov A.U., [Текст] // VI International conference "Sharing the results of research toards closer global convergente of scientists". — Ontario, Canada:1807-150 Charlton av. East Hamilton, 2015. — С. 38-43.
4. Жониев, С. Ш., Бабажанов, А. С. Қалқонсимон без паталогиялари операцияларида операция олди тайёргарлиги ва анестезия самарадорлигини баҳолаш / С. Ш. Жониев, А. С. Бабажанов [Текст] // "XXI-аср - интеллектуал авлод асри" Самарқанд ҳудудий илмий амалий-конференцияси материаллари. — Самарқанд, Ўзбекистон:СамДЧТИ нашриёти, 2016. — С. 190-193.
5. Joniev S.Sh. Features of preoperative preparation and anesthesia in thyroid pathology [Текст] / Joniev S.Sh. // *British Medical Journal* . — 2022. — № Volume-2, No 4. — С. 212-215.
6. Joniev S.Sh. Anesthesiological allowance for operations for diffuse goiter [Текст] / Joniev S.Sh. // *Journal of integrated education and research*. — 2022. — № Volume 1, Issue 5. — С. 19-26.
7. Joniev S.Sh. Improving the results of anesthesia in thyroid pathology [Текст] / Joniev S.Sh. // *Uzbek medical journal*. — 2022. — № Volume 3, Issue 3. — С. 23-28.

8. Жониев С. Ш., Пардаев Ш. К. Қалқонсимон без операцияларида умумий кўпкомпонентли анестезиянинг қўлланилиши [Текст] / С. Ш. Жониев, Ш. К. Пардаев // Тиббиётда янги кун. — 2021. — № 6 (38/1). — С. 443-479.
9. Joniev S.Sh. Determining the level of preoperative preparation and conducting anesthesia in patients with thyroid pathologies [Текст] / Joniev S.Sh. // Danish Scientific Journal (DSJ). — 2022. — № 59. — С. 19-23.
10. Joniev S.Sh. Improvement of the results of anesthesia in thyroid pathology [Текст] / Joniev S.Sh. // Annali d'Italia. — 2022. — № Vol 1. 30. — С. 78-82.
11. Joniev S.Sh., Yakubov I., Pormonov Kh., Daminov I., Ensuring adequate premedication in patients with thyroid pathology [Текст] / Joniev S.Sh., Yakubov I., Pormonov Kh., Daminov I., // Norwegian Journal of development of the International Science. — 2022. — № 86. — С. 17-20.
12. Joniev S.Sh., Tukhsanbaev S., Kurbanov K., Abdaliev D., Predicting the effectiveness of anesthesia in thyroid pathology [Текст] / Joniev S.Sh., Tukhsanbaev S., Kurbanov K., Abdaliev D., // Polish journal of science. — 2022. — № 51. — С. 30-34.
13. Joniev S.Sh., Ganiev A., Ibrokhimov Z., Melikboboev A., Analysis of the effectiveness of anesthesia methods in thyroid pathology [Текст] / Joniev S.Sh., Ganiev A., Ibrokhimov Z., Melikboboev A., // Znanstvena misel journal Slovenia. — 2022. — № 67. — С. 32-35.
14. Joniev S.Sh., Pardaev Sh.K., Muhammadieva U., Analysis of methods of general anesthesia in thyroid surgery based on hemodynamic parameters [Текст] / Joniev S.Sh., Pardaev Sh.K., Muhammadieva U., // Turkish Journal of Physiotherapy and Rehabilitation. — 2021. — № 32(3). — С. 7136-7140.
15. Жониев, С. Ш., Хушвактов, У. О. Эндокрин хирургиясида анестезия давомиди гемодинамик кўрсаткичларни баҳолаш [Текст] / С. Ш.

Жониев, У. О. Хушвактов // Тиббиётда янги кун. — 2020. — № 4. — С. 150-154.

16. Жониев, С. Ш., Пардаев, Ш. К. Қалқонсимон без операцияларида умумий анестезиянинг қўлланилиши [Текст] / С. Ш. Жониев, Ш. К. Пардаев // Биомедицина ва амалиёт. — 2021. — № 4. — С. 59-67.

17. Joniev S.Sh., Pardaev Sh.K., Akramov B.R., Hushvakov U.O., Monitoring And Evaluation Of Hemodynamic Parameters During Anesthesia In Endocrine Surgery [Текст] / Joniev S.Sh., Pardaev Sh.K., Akramov B.R., Hushvakov U.O., // The American Journal of Medical Sciences and Pharmaceutical Research. — 2020. — № 2(12). — С. 40-46.

18. Жониев С.Ш., Гемодинамические аспекты при многокомпонентной общей анестезии в эндокринной хирургии [Текст] / Joniev S.Sh., // MEDICUS Международный медицинский научный журнал. — 2020. — № № 5 (35). — С. 8-13.

19. Жониев, С. Ш., Пардаев, Ш. К., Гойибов, С. С., Акрамов, Б. Р. Использование модифицированного метода предоперационной подготовки и анестезии в хирургии щитовидной железы / С. Ш. Жониев, Ш. К. Пардаев, С. С. Гойибов, Б. Р. Акрамов [Текст] // Collection of scientific articles XIV International correspondence scientific specialized conference. — Boston:PROBLEMS OF SCIENCE, 2019. — С. 175-186.

20. Жониев С. Ш., Хушвактов У. О. Рациональное гемодинамическое мониторирование при анестезиологических пособиях в эндокринной хирургии //Актуальные вопросы диагностики и лечения новой коронавирусной инфекции. – 2020. – С. 6-11.

21. Жониев, С. Ш., Муминов, А. А., Хушвактов, У. О. Пери операционный период в эндокринной хирургии: пути решения анестезиологических проблем [Текст] / С. Ш. Жониев, А. А. Муминов, У.

О. Хушвактов // Евразийский Союз Ученых. — 2020. — № 5-6 (74). — С. 38-41.

22. Жониев С. Ш., Рахимов А. У. Варианты предоперационной подготовки при операциях на щитовидной железе [Текст] / Жониев С. Ш., Рахимов А. У. // Наука и мир. — 2014. — № 11-2. — С. 138-141.

23. Жониев С. Ш., Влияние комплексной предоперационной подготовки на биохимические показатели крови больных узловым зобом [Текст] / Жониев С. Ш., // Доктор ахборотномаси. — 2013. — № 1(3). — С. 71-73.

24. Жониев С. Ш., Рахимов, А. У., Бабажанов, А. С. Значение биохимических показателей при предоперационной подготовки больных узловым зобом [Текст] / А. У. Рахимов, А. С. Бабажанов // Science and world. — 2013. — № 9(136). — С. 136-138.

25. Жониев С. Ш., Бабажанов А. С., Хушнаев С., Султанова С. Улучшение методов предоперационной подготовки и анестезии в периоперационном периоде заболеваний щитовидной железы [Текст] / Жониев С. Ш., Бабажанов А. С., Хушнаев С., Султанова С. // European research. — 2018. — № 5. — С. 135-138.

26. Жониев С. Ш., Бабажанов А. С., Рахимов, А. У. Анализ эффективности вариантов предоперационной подготовки и анестезии в лечении заболеваний щитовидной железы [Текст] / Жониев С. Ш., Бабажанов А. С., А. У. Рахимов // Проблемы биологии и медицины. — 2017. — № 1. — С. 93-95.

27. Жониев С. Ш., Определение эффективности предоперационной подготовки больных узловым зобом на основании биохимических показателей. [Текст] / С. Ш. Жониев // Проблемы биологии и медицины. — 2014. — № 1 (77). — С. 14-18.

28. Жониев, С. Ш. Модифицированный метод предоперационной подготовки и анестезии при оперативном лечении патологии щитовидной

железы / С. Ш. Жониев [Текст] // Материалы межрегионального научно-практического форума с международным участием «Здоровье семьи — будущее России». — Ижевск: ООО «МедЭкспоФорум», 2019. — С. 37-40.

29. Жониев, С. Ш. Предоперационная подготовка и анестезия при операциях на щитовидной железе / С. Ш. Жониев [Текст] // Сборник цикла лекции "Анестезия у пациентов с сопутствующими заболеваниями и при различных типах хирургических вмешательств». — Самарканд: СамГМИ, 2015. — С. 72-81.

30. Рахимов, А. У., Жониев, С. Ш. Қалқонсимон без патологиялари операцияларида умумий анестезия усуллари самарадорлигини баҳолаш [Текст] / А. У. Рахимов, С. Ш. Жониев // Проблемы биологии и медицины. — 2022. — № 4,1(138). — С. 118-125.

31. IL Sharipov, JT Yusupov, BK Xolbekov Personalization and preventative premedication: used drugs value and efficiency //Web of Scientist: International Scientific Research Journal 3 (02), 740-748

32. Matlubov Mansur Muratovich, Yusupov Jasur Tolibovich, Mallayev Surat Sadullayevich, Khamrayev Khamza Hamidullayevich Optimization of anesthesiological assistance in women with arterial hypertension in hysterectomy // Достижения науки и образования. 2020. №5 (59).

33. Muratovich, Matlubov Mansur, et al. "Hemodynamic indicators in pregnant women with obesity of various degrees of expression." *European Journal of Molecular and Clinical Medicine*, vol. 8, no. 2, 15 Jan. 2021