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# COMPARISON OF INTENSIVE CARE METHODS IN PATIENTS WITH ACUTE CORONARY SYNDROME AFTER X-RAY ENDOVASCULAR INTERVENTION

S. Sh. Joniev<sup>1,2</sup>, Sh. Z. Boymatov <sup>2</sup>, F. A. Boboyev <sup>2</sup>, A.X. Ganiyev <sup>2</sup>

- <sup>1</sup> Samarkand State Medical University,
- <sup>2</sup> Samarkand Regional Branch of the Republican Specialized Scientific and Practical Medical Center of Cardiology, Uzbekistan, Samarkand

### **Abstract:**

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.

#### Introduction

**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 drugeluting 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.

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