



# TO STUDY THE PRESENCE OF RISK FACTORS FOR THE DEVELOPMENT OF ACUTE CORONARY SYNDROME IN PATIENTS OF WORKING AGE HOSPITALIZED IN EMERGENCY MEDICAL CARE

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## Abstract:

To study the presence of risk factors for the development of acute coronary syndrome in young patients in specialized cardiology centers.

## Keywords:

### RELEVANCE

According to the data of the World Health Organization, the main cause of death in the world is cardiovascular diseases, which lead to significant socio-economic losses due to the mortality of people of working age, as well as high expenditures of health system resources for medical care [2, 7, 9].

Acute coronary syndrome (ACS) should be understood as a set of body reactions to the development of such pathological conditions as unstable angina and myocardial infarction (both with and without ST segment elevation) [1, 8, 15]. ACS combines the early stages of myocardial infarction, during which the risk of death is highest, and its isolation from the group of ischemic diseases has acquired important practical significance [3, 10, 14]. ACS is a consequence of thrombosis that occurs when an atherosclerotic plaque of the coronary artery ruptures. The clinical picture largely depends on the characteristics of the nature of the violation of the patency of the coronary artery. Unstable angina pectoris develops with coronary artery spasm or platelet aggregation formation [4, 6, 11]. With the formation of a parietal red thrombus, a myocardial infarction without a Q wave develops, with the formation of an obstructing durable red or mixed thrombus, occlusion of the coronary artery occurs and a transmural myocardial infarction with a Q wave develops [5, 12, 14].

The risk factors for ACS have been well studied. These include: males aged 40 to 60 years, consumption of psychoactive substances, diabetes mellitus, heredity, obesity, smoking, hypertension, psychoemotional stress, hypercholesterolemia, sudden changes in meteorological conditions, impaired regulation of immune processes, insufficient magnesium content in the body [3, 7, 9].

The causes of rupture or erosion of the atherosclerotic plaque, which should be considered an initial moment in the development of ACS, include: exacerbation of the inflammatory reaction in the plaque, vasa vasorum rupture and massive hemorrhage into the plaque, a significant increase in the amount of lipids in the plaque, thinning of the plaque cap, platelet adhesion and aggregation, thrombus formation, stenosis and occlusion of the coronary artery [6, 14]. Particular attention is drawn to the immunological aspects of the pathogenesis of ACS. Acute episodes of dyslipidemia are one of the possible prerequisites for atheromatous plaque damage and the occurrence of an intravascular thrombus [10, 15].

The currently available evidence base for diagnostic and therapeutic approaches in ACS is based on the results of studies of young and middle-aged people with an insufficient number of observations, in this regard, this situation leads to the need to study the factors that aggravate the course of ACS. It should also be noted that the identification of possible factors aggravating the course of ACS in young and middle age requires individual approaches and careful interpretation of clinical symptoms [8, 14].

**THE PURPOSE OF THE STUDY:** to study the presence of risk factors for the development of acute coronary syndrome in young patients in specialized cardiology centers.

**MATERIALS AND METHODS:** Our clinical study included 80 patients with a clinically established diagnosis of Acute coronary syndrome with ST segment elevation, who were treated in the cardiac intensive care unit of the Samarkand branch of the Republican Scientific Center for Emergency Medical Care from 03/01/2023 to 03/01/2024. All patients, depending on their age, were divided into 2 groups. The first group



consisted of 45 young patients aged 20-44 years, the average age of this group was  $38.4 \pm 5.3$  years. The second group consisted of 35 patients of average age from 45 to 59 years, whose average age was  $52.4 \pm 5.6$  years. Of the first 1 group, there were 26 men and 19 women. And in the 2nd group there were 21 men and 14 women. All patients underwent a general blood test, biochemical blood analysis (glucose, urea, creatinine, bilirubin, total protein with lipid spectrum inclusion), general urine analysis, ECG, ECHO, coronary angiography and, as indicated, ultrasound of internal organs. And all patients were given a questionnaire on the presence of risk factors on the first day, which included smoking, alcohol abuse, obesity, age, gender, metabolic syndrome, physical inactivity and the presence of concomitant diseases.

**RESULTS:** when studying for the presence of risk factors, it was revealed that the presence of the male sex prevailed in young patients and stress risk factors, genetic predisposition, alcohol consumption, sedentary lifestyle, malnutrition and consumption of energy drinks were most often noted. And when studying risk factors among middle-aged patients, the female sex, the presence of concomitant diseases, chronic stressful situations, low physical activity, obesity, etc. prevailed. When studying the data of coronary angiography, it was also noted that middle-aged patients have multifocal atherosclerotic lesions and pronounced development of collateral coronary arteries compared with young patients.

**CONCLUSIONS:** thus, young and middle-aged patients have almost identical risk factors. In young patients, the presence of the male sex prevailed and stress risk factors, genetic predisposition, alcohol consumption, sedentary lifestyle, malnutrition and consumption of energy drinks were most often noted. And when studying risk factors among middle-aged patients, the female sex, the presence of concomitant diseases, chronic stressful situations, low physical activity, obesity, etc. prevailed.

#### LIST OF LITERATURE:

1. Кодирова, Ш. А., and Ш. И. Ходжанова. ФАКТОРЫ РИСКА, ВЛИЯЮЩИЕ НА ТЕЧЕНИЯ ОСТРОГО КОРОНАРНОГО СИНДРОМА. Diss. THEORETICAL ASPECTS IN THE FORMATION OF PEDAGOGICAL SCIENCES, 2022.
2. Кожокар, Кристина Георгиевна, Ирина Александровна Урванцева, and Константин Юрьевич Николаев. "Влияние неконвенционных факторов риска на тяжесть течения острого коронарного синдрома у пациентов, проживающих в условиях севера." Вестник СурГУ. Медицина 3 (29) (2016): 59-61.
3. Резяпкина, М. С., and О. П. Юрлова. "Оценка факторов риска у больных с первичным и повторным острым коронарным синдромом." Бюллетень медицинских интернет-конференций. Vol. 5. No. 5. Общество с ограниченной ответственностью «Наука и инновации», 2015.
4. Каюмова, Гюзелия Хатыбулловна, and Владимир Александрович Разин. "Особенности проявлений факторов риска в гендерных группах острого коронарного синдрома." Ульяновский медико-биологический журнал 1 (2017): 8-15.
5. Староверов, И. И., et al. "Евразийские клинические рекомендации по диагностике и лечению острого коронарного синдрома с подъемом сегмента ST (ОКСпST)." Евразийский кардиологический журнал 1 (2020): 4-77.
6. Дубикайтис, Татьяна Александровна. "Острый коронарный синдром." Российский семейный врач 21.1 (2017): 5-14.
7. Чащин, М. Г., А. Ю. Горшков, and О. М. Драпкина. "Острый коронарный синдром у пациентов с COVID-19." Кардиоваскулярная терапия и профилактика 20.5 (2021): 107-114.
8. Аглуллина, Элла Ильдусовна. "Острый коронарный синдром: от диагностики к оптимизации лечения." Вестник современной клинической медицины 6.5 (2013): 91-94.
9. Хасанжанова, Ф. О., et al. "Эффективность Тромболитической Терапии У Больных С Острым Коронарным Синдромом С Подъемом Сегмента St У Лиц В Молодом Возрасте." Central Asian Journal of Medical and Natural Science 4.2 (2023): 632-636.
10. Хасанжанова, Фарида Одыловна, Улугбек Азимжон Угли Мардонов, and Тохиржон Шомирза Угли Юсупов. "Факторы, неблагоприятно влияющие на исход лечения больных с острым коронарным синдромом в молодом и пожилом возрасте." Проблемы современной науки и образования 11-1 (144) (2019): 94-97.
11. Хасанжанова, Фарида Одыловна, and Элеонора Негматовна Ташкенбаева. "Неблагоприятные факторы риска влияющие на исход лечения больных острым



- коронарным синдромом с подъемом сегмента ST." Авиценна 34 (2019): 4-6.
12. Хасанжанова, Фариди Одыловна. "ВЛИЯНИЕ ТРОМБОЛИТИЧЕСКОЙ ТЕРАПИИ НА СИСТОЛИЧЕСКУЮ ФУНКЦИЮ ЛЕВОГО ЖЕЛУДОЧКА ПРИ ОСТРОМ КОРОНАРНОМ СИНДРОМЕ С ПОДЪМОМ СЕГМЕНТА ST В МОЛОДОМ ВОЗРАСТЕ." Актуальные научные исследования в современном мире 10-7 (2019): 91-95.
  13. Хасанжанова, Ф. О., et al. "Оценка влияния рамиприла и пириндоприла на систолическую функцию левого желудочка у больных с острым инфарктом миокарда без элевации сегмента ST." Central Asian Journal of Medical and Natural Science 4.3 (2023): 461-465.
  14. Саидов, М. А., et al. "Оценка Функции Почек Как Независимый Предиктор Прогноза Больных С Острым Коронарным Синдромом." Journal of Science in Medicine and Life 1.2 (2023): 112-115.
  15. Хасанжанова, Ф. О. "ЧАСТОТА ВСТРЕЧАЕМОСТИ ФАКТОРА РИСКА КУРЕНИЯ У БОЛЬНЫХ С ОСТРЫМ КОРОНАРНЫМ СИНДРОМОМ В МОЛОДОМ ВОЗРАСТЕ." ТОМ-II (2019): 218.