



## CORONARY ARTERY DISEASE IN OLDER WOMEN

**Laziz S.Yorbulov**  
**Muhammad Hamid Rafique**  
**Ahmed Faraz**  
**Anbreen Fatima**  
**Aqsa Nazir**

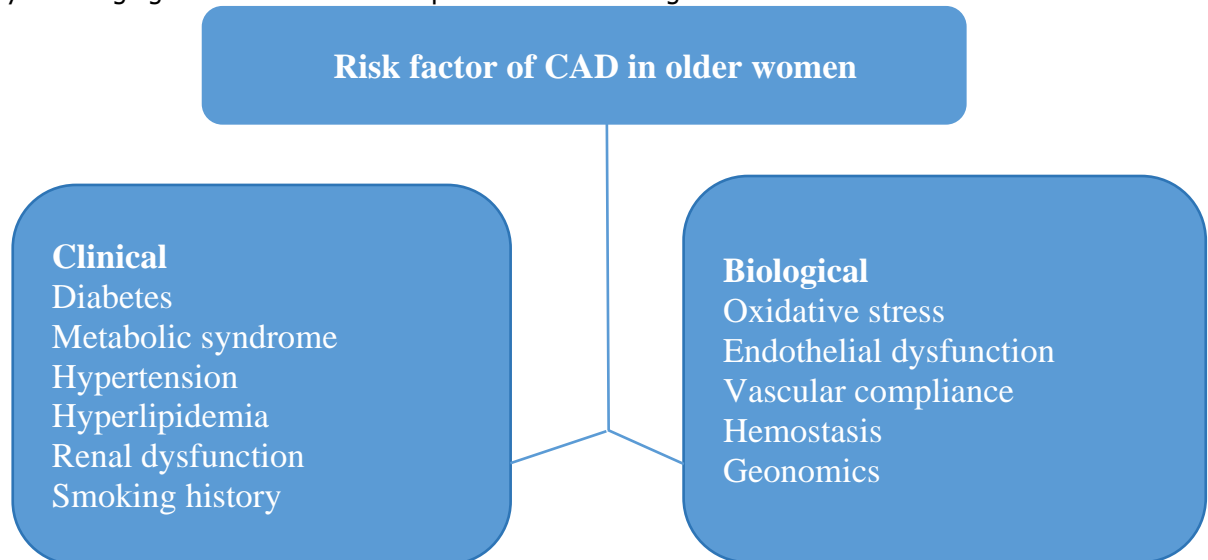
Samarkand State Medical University

Article history:	Abstract:
<b>Received:</b> 23 <sup>rd</sup> January 2024 <b>Accepted:</b> March 21 <sup>st</sup> 2024	Younger women have a worse prognosis than older women, yet treating this condition is particularly challenging because older women have more comorbidities. For older women, coronary artery disease is the primary cause of both death and morbidity. Our goal is to talk about the characteristics and risk factors of CAD, which are important for both diagnosing and treating the condition.

**Keywords:** Coronary artery disease, Women, Obesity, Heart disease

**INTRODUCTION:** A condition known as coronary artery disease (CAD) may arise from our heart muscles receiving less oxygen. Regardless of color or ethnicity, it is responsible for the deaths of one in three women. Globally, CAD has a significant annual mortality rate among older women. According to a recent study, women with coronary heart disease (CAD) are more likely to experience symptoms after menopause. This means that when CAD is discovered later in life, it can be extremely challenging to treat because the patient

may have several concomitant conditions. According to a recent study, a number of different comorbidities contribute to older women's death rates, which are almost 55 percent higher than those of younger women. One major cause of this is the buildup of plaque, or arteriosclerosis, in the blood vessels that supply our hearts with blood. There are numerous risk factors and characteristics associated with plaque formation in older women. There are two categories of these risk factors: biological and clinical.



Diabetic dyslipidemia, age, and family history are additional risk factors for CAD. Studies show that older women are more likely to develop postmenopausal hypertension, diabetes, and obesity, in addition to having a higher risk of CAD. According to a study, younger women have a 15% higher CAD ratio. A significant factor in CAD is also family history. Women's myocardial infarction has been linked to stromelysin-1, plasminogen activator inhibitor-1 (PAI-1), and members of the matrix metalloproteinase family, among other

enzymes suspected to be involved in plaque rupture. Variations in genetic expression give rise to variations in the pathophysiology of atherosclerosis, encompassing aspects such as hemostasis, endothelial dysfunction, and plaque composition. Hypertension is more common in women over 45; it also contributes to coronary artery disease (CAD). By the age of 80, women's systolic blood pressure rises disproportionately. It is strongly associated with obesity and is six times higher in those with a BMI of 30 or above. In contrast,



a 9-kg weight loss can reduce a hypertension patient's systolic blood pressure by 6 mmHg and diastolic blood pressure by 3 mmHg. The prevalence of hypertension is 20% higher in older women than in younger ones. According to studies, women with diabetes have CAD four times more frequently than women without the disease. CAD, which has a strong correlation with dyslipidemia, is responsible for around 80% of the deaths that occur in individuals with diabetes. Elevated TG, low HDL, and an increased proportion of small dense LDL are the characteristics of diabetic dyslipidemia. High CAD mortality is seen in diabetic women with HDL < 50 mg/dl and TG > 100 mg/dl. Given that there is a potential for an increase in both LDL and triglycerides following menopause, hyperlipidemia is a significant risk factor for older women. According to studies, older women have a higher total cholesterol level (10 mg/dl) than younger women, which increases their risk of developing CAD from 70% to 80%. the optimum level of TC is recommended < 160mg/dl. According to age, women's LDL rises by 1.5 mg/dl/year (optimum level: <155 mg/dl), HDL counts rise by more than 5 (between a ratio of 3 and 4 is normal), and triglycerides rise in tandem with age, which is directly correlated with an increase in BMI. The risk of CAD will rise in older women if all LDL, HDL, and other cholesterol values rise.

BMI is a method used to identify obesity. It is a common method of identifying obesity. There are numerous indications and symptoms of CAD, and patients experience them in various ways. The symptoms include pain in the left arm, shortness of breath, cold

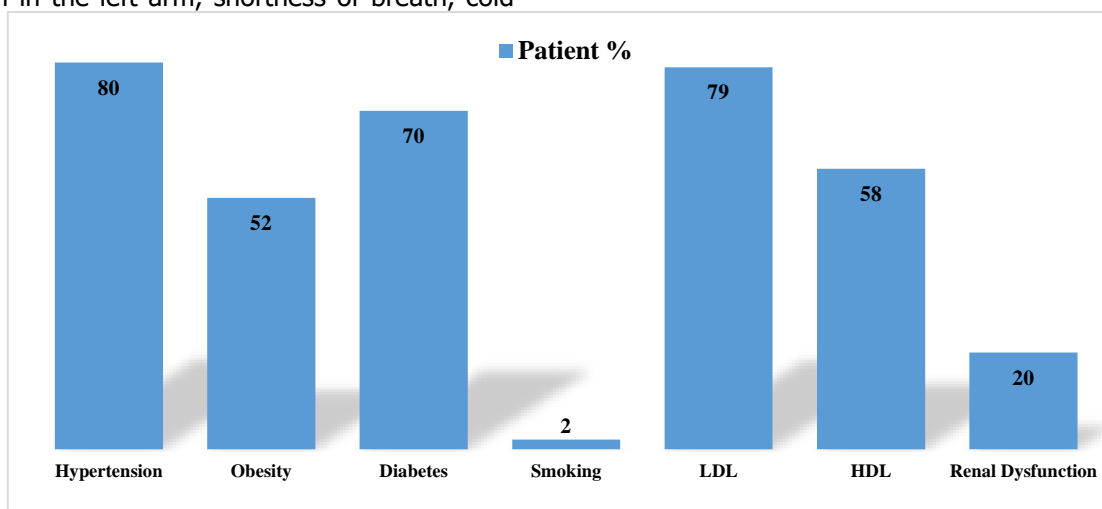
sweats, and fatigue. However, in females, particularly the elderly, the signs and symptoms manifest in slightly different ways. These include fatigue, nausea, right or middle chest pain, atypical symptoms, pain in the neck and jaw, and chest pain that may or may not be present.

**MATERIALS AND METHODS:** In order to identify the clinical manifestations and risk variables that are frequently associated with CAD, 40 older women from 60 to 80 years admitted in samarkand state medical university hospital, Khavasi, Samarkand, Uzbekistan were examined. First, the patient's was discussed with their medical history, clinical features, and other imaging tests—were analyzed. To find their primary causes and characteristics, we conducted numerous tests, reviewed their medical history, and conducted a physical examination with them. Invasive and non-invasive testing such as MRIs, CMITs, cardiac CT scans, and imaging tests were performed. Tests for lipid profiling, heart imaging, and ultrasounds were also carried out and carefully examined.

**RESULTS:** The most common risk factor that we came to know was

- Hypertension (80% out of 100%)
- LDL level (79% out of 100%)
- Diabetes (70% out of 100%)
- HDL level (58% out of 100%)
- Obesity (52% out of 100%)
- Smoking (2% out of 100%)

The result of the risk factor are given below.



The **clinical presentation's** outcomes are listed below.

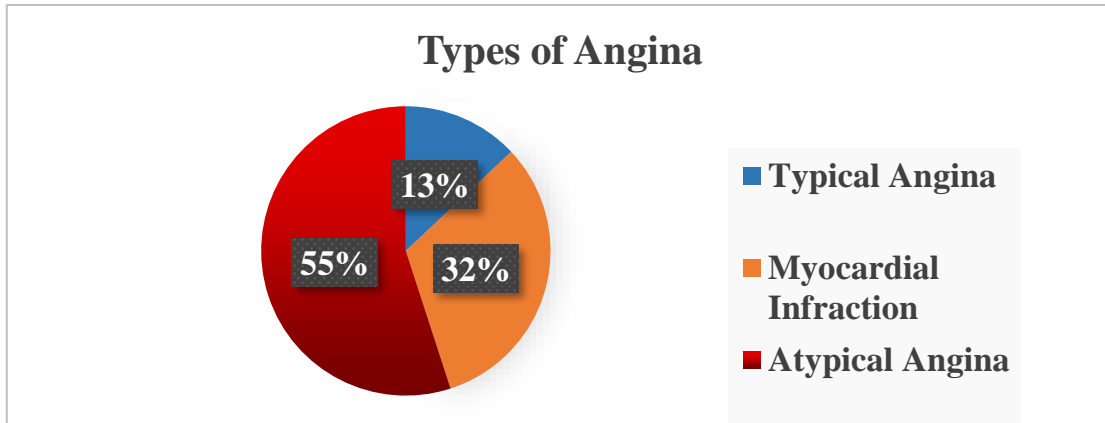
Most common clinical presentation was

**Angina**

- Typical (13% out of 100%)
- Atypical (55% out of 100%)

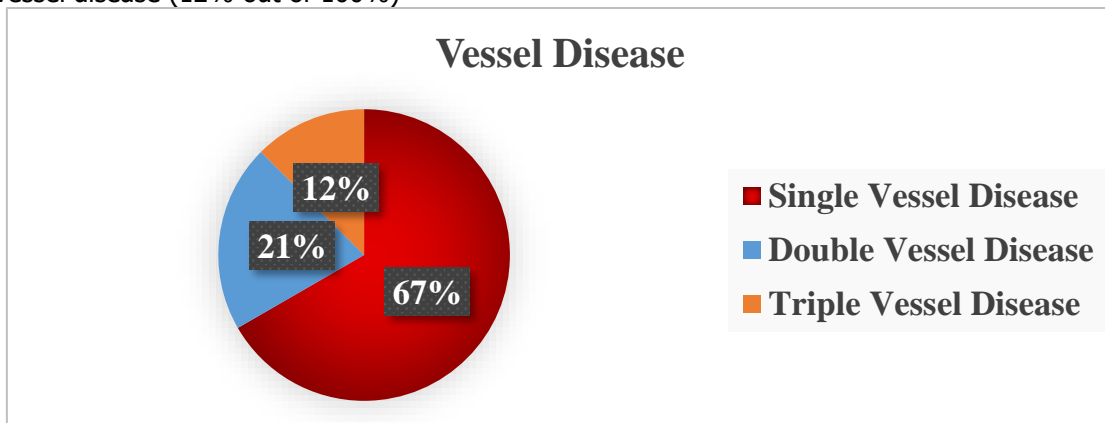


**Myocardial Infraction** (32% out of 100%)



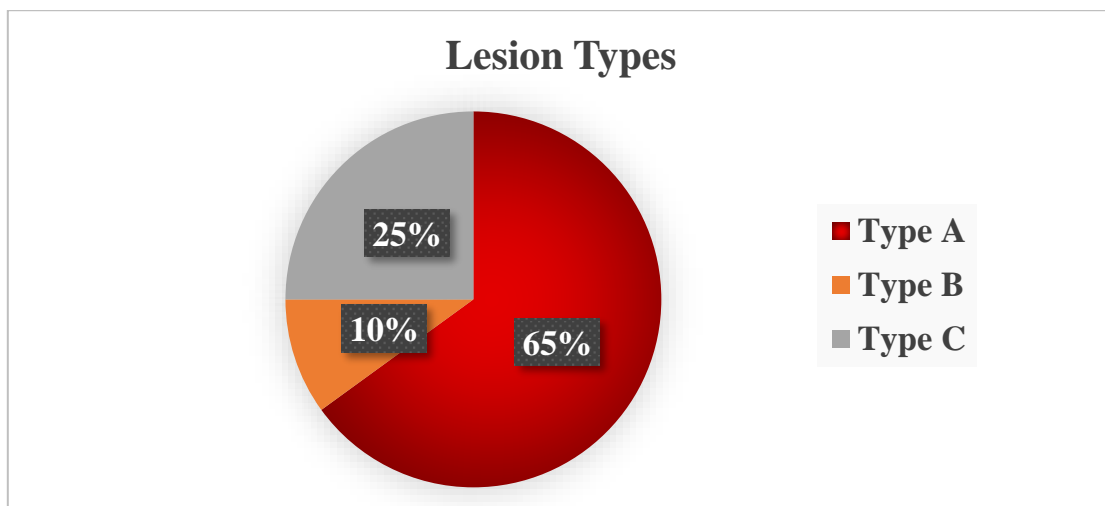
**Vessel Disease**

- Single vessel disease (76% out of 100%)
- Double vessel disease (21% out of 100%)
- Triple vessel disease (12% out of 100%)



**Lesions**

- Type A (65% out of 100%)
- Type B (10% out of 100%)
- Type C (25% out of 100%)





**CONCLUSION:** Due to hormonal imbalances that can result in obesity and an elevated BMI, which can induce plaque development, CAD is more common in older women. Women also have numerous additional comorbidities, such as diabetes, among many others. This makes it challenging to treat, but we can get over this if we identify it early and take appropriate action.

#### REFERENCES:

1. Agababyan I.R., Pulatova K.S., Rofeev M.S. Metabolic syndrome as one of the main factors of arterial hypertension development. // Achievement of science and education. 2019. № 10 (51). С. 54-58.
2. Dilshodovna, A. M. ., Odylovna, K. F. ., Samveilovna, P. K. . (2022). Peculiarities of Psychological Disorders in Patients with Acute Coronary Syndrome. INTERNATIONAL JOURNAL OF HEALTH SYSTEMS AND MEDICAL SCIENCES, 1(6), 203–207.
3. Retrieved from <http://inter-publishing.com/index.php/IJHSMS/article/view/695>
4. Kristina Samvelovna Pulatova, Timur Mukhitdinovich Pulatov, Mukhammad Olimovich
5. Esankulov THE SPECIFIC FEATURES OF ARTERIAL HYPERTENSION IN OWEWEIGHT PATIENTS WITH PSORIASIS // Academic research in educational sciences. 2021. №2. URL: <https://cyberleninka.ru/article/n/the-specific-features-of-arterial-hypertension-in-owerweight-patients-with-psoriasis> (дата обращения: 13.05.2023).
6. Abdulloyeva , M. ., Pulatova , K. ., & Mirzaev , R. . (2023). ORTIQCHA VAZN VA ARTERIAL GIPERTONIYA BILAN OG'RIGAN YOSHLARDA YUZAGA KELADIGAN JINSIY ZAIFLIK. Евразийский журнал медицинских и естественных наук, 3(4 Part 2), 91–94. извлечено от <https://in-academy.uz/index.php/EJMNS/article/view/13515>
7. Khasanjanova F. O., Tashkenbayeva E. N., Abdulloeva M. D. OF THROMBOLYTIC THERAPY IN PATIENTS WITH ST-ELEVATION ACUTE CORONARY SYNDROME IN YOUNG AGED PERSONS //International Bulletin of Medical Sciences and Clinical Research. – 2023. – Т.3. – №. 4. – С. 139-143.
8. Пулатова К. С. ВЛИЯНИЕ АНТИГИПЕРТЕНЗИВНЫХ ПРЕПАРАТОВ НА ИНСУЛИНОРЕЗИСТЕНТНОСТЬ И ПОКАЗАТЕЛЕЙ ЛИПИДНОГО СПЕКТРА //European Journal of Interdisciplinary Research and Development. – 2023. – Т. 15. – С. 72- 75.
9. Pulatova K. S., Panjriwala S. J., Chhabra B. Hemodynamic Features of IHD in Overweight Patients //American Journal of Pediatric Medicine and Health Sciences (2993-2149). – 2023. – Т. 1. – №. 10. – С. 582-586.
10. Samvelovna P. K. et al. Precision Wellness Solutions: Revolutionizing Hypertension Management in Obesity //American Journal of Pediatric Medicine and Health Sciences (2993-2149). – 2023. – Т. 1. – №. 8. – С. 267-270.
11. Bakhtiyarovich A. A., Samvelovna P. K. Peculiarities of the Influence of Metabolic Syndrome on the Course of Coronary Heart Disease //American Journal of Pediatric Medicine and Health Sciences (2993-2149). – 2023. – Т. 1.– №. 8. – С. 396-400.