World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-46 May 2025
ISSN: 2749-3644

INCIDENCE OF ABNORMAL CORONARY ARTERY ORIGINS IN WORKING-AGE PATIENTS WITH CORONARY HEART DISEASE

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Article history:

Received: March 30th 2025
Accepted: April 26th 2025

Abstract:

This scientific work studied the incidence of abnormal origins of the coronary arteries in patients with coronary artery disease of working age. The study was conducted from January 2024 to December 2024 and 5170 coronary angiographic studies were performed, among which 35 patients were found to have abnormal origins of the coronary arteries. The average age of patients was 40 years (from 19 to 75 years), 23 patients were men and 12 patients were women. According to coronary angiography studies, various types of abnormal origins of the coronary arteries were detected in 35 patients: abnormal origin of the circumflex artery (CA) from the right coronary artery (RCA) was detected in 12 patients, abnormal origin of the RCA from the aorta above the sinus of Valsalva (SV) was determined in 9 patients, abnormal origin of the RCA from the left SV was detected in 6 patients, abnormal origin of the OB from the right SV was determined in 4 cases, abnormal origin of the anterior descending artery (LDA) from the RCA was noted in 3 patients, and a single coronary artery (SCA) was diagnosed in only one patient.

Keywords: coronary artery disease, anomaly, coronary artery, coronary angiography, etc.

RELEVANCE. Ischemic heart disease (IHD) has long been the main disease leading to mortality and disability of the population in all economically developed countries of the world [1, 4]. An infrequent, but quite real cause of coronary insufficiency can be an anomaly in the development of the coronary bed. The true incidence of congenital coronary anomalies is unknown. For the adult population, it is estimated at approximately 2-3 [3, 7]. However, it is possible that coronary pathology can occur much more often, since it is often asymptomatic. In 80% of those examined, the identified anomalies do not cause significant disturbances in coronary blood flow [4, 8]. At the current stage of development of medical technologies, a patient with IHD can be offered various treatment options [2, 6]. This statement is true not only in terms of the approach to choosing the tactics of managing a patient with this pathology (conservative, endovascular or surgical correction of coronary insufficiency), but also to the choice of various techniques and modifications used in myocardial revascularization operations [5, 10].

OBJECTIVE OF THE STUDY: to study the incidence of abnormal origins of the coronary arteries in patients of working age with coronary artery disease according to percutaneous coronary interventions.

MATERIALS AND METHODS OF THE STUDY: This study was conducted at the Samarkand Regional Branch of the Republican Specialized Scientific and Practical Medical Center of Cardiology from January 2024 to December 2024 and 5170 coronary angiographic studies were performed, among which 35 patients were found to have abnormal origins of the coronary arteries. The average age of patients was 40 years (from 19 to 75 years), 23 patients were men and 12 patients were women.

RESULTS OF THE STUDY: According to the data of coronary angiography studies, various types of abnormal origins of the coronary arteries were detected in 35 patients: abnormal origin of the circumflex artery (CA) from the right coronary artery (RCA) was detected in 12 patients, abnormal origin of the RCA from the aorta above the sinus of Valsalva (SV) was determined in 9 patients, abnormal origin of the RCA from the left SV was detected in 6 patients, abnormal origin of the OB from the right SV was determined in 4 cases, abnormal origin of the anterior descending artery (LDA)

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Hemodynamically significant stenoses requiring direct revascularization were diagnosed in 16 patients, single-vessel lesions were detected in 7 patients (Syntax Score <22), severe multivessel coronary artery disease was noted in 6 patients and stenoses Syntax Score 23-32 points (n=4) and Syntax Score >32 points (n=2). One patient had a history of coronary artery bypass grafting. Stenting of the coronary arteries was performed in 9 patients. In 3 cases, patients with angina pectoris of FC III according to CVD underwent stenting of the OA originating from the RCA. Stenting of the RCA, abnormally originating from the aorta above the sinus of Valsalva, was performed in 3 patients and 1 patient, 75 years old, with unstable angina (UA), abnormal origin of the OA from the RCA and stenosis of the proximal third of the LAD, direct stenting of the LAD was performed. The patient with a single coronary artery simultaneously underwent recanalization of the PMSV of the OB and bifurcation stenting of the OA and RCA using the qulotte technique. Retrograde recanalization of the RCA, originating from the left SV, was performed in one observation. In all cases, drug-eluting stents were implanted.

Good angiographic results were achieved in all observations, there were no complications during and after the interventions. Patients with multivessel disease Syntax Score > 23 points were referred for coronary artery bypass grafting. Two patients were re-admitted with clinical features of CHF 3 FC after 3 and 5 years, both had previously undergone stenting of the OA. Control CAG revealed hemodynamically insignificant restenoses in the OA and new stenoses in the RCA and LAD, which were successfully stented.

CONCLUSION: thus, coronary angiography is a reliable method for diagnosing abnormal origin of the coronary arteries, allowing to identify variant anatomy of congenital pathology, the degree of damage to the coronary arteries and to select the optimal method of direct myocardial revascularization; percutaneous coronary interventions in patients with coronary heart disease in combination with coronary artery anomalies are an effective treatment method.

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