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ANOMALIES OF THE CORONARY ARTERIES DEVELOPMENT: INTRAMURAL PASSAGE

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Relevance. Congenital anomalies of the coronary arteries are among the top factors that heighten heart disorder's incidence risk. Intramural passage of the coronary artery "dive" through the myocardium beneath the muscle fibers. In this way, the contraction of muscle fibers leads to blood flow disturbance and can manifest into myocardial infarction or a sudden cardiac death in patients of younger and middle age groups. Worldwide, the coronary angiography is considered to be used as a gold standard for diagnosing the intramural passage of the coronary arteries.

Aim: to examine the structural and functional condition of the coronary arteries in patients with revealed intramural passage.

Materials and methods. The base of the study was the City Clinical Emergency Hospital of Minsk. The study covers the time period between 2010 and 2015. The catheterization laboratory`s protocols of percutaneous coronary interventions were analyzed. Obtained information was structured, highlighting the main evaluation criteria. The analysis was held using a computer program for statistical data processing "SPSS Statistics", version 21.0.

Results. During the examined period 46 cases of the intramural passage of the coronary artery were detected, among them: 38 men (82.6%) and 8 women (17.4%). The gender ratio "men:women" was evaluated as 4.8:1, respectively.

The patients' age varied from 38 to 82 years. The average value was 60.6±1.7 years, the median was 60.0 years (interquartile range 25% -75%: 53.0-70.0 years).

The length of the intramural passage among the study group ranged from 10.0 mm to 25.0 mm. The average value of the intramural passage length was equal to 16.1±0.8 mm, the median was 15.0 mm (interquartile range 25% -75%: 10.0-20.0 mm).

In nine patients (19.6%), there was no evidence of an atherosclerotic lesion of the coronary arteries. All acquired data is comparable with the information observed in the world literature.

Conclusions. Intramural passage of the coronary artery is a congenital condition, which often manifests itself in men of the middle age group. Average length of the passage is about 16 mm. Arteries of every fifth patient with such anomaly are not accompanied by atherosclerotic coronary lesions.