

MODERN METHODS FOR DIAGNOSING ANGINA PECTORIS

Nikhola Kasymova

Department of Internal medicine

Andijan State Medical Institute

Annotation: The diagnosis of angina pectoris is clinical, based on a detailed analysis of the pain syndrome. Even in the absence of changes according to instrumental studies (including coronary angiography), a typical clinical picture gives grounds for making a diagnosis of angina pectoris.

Key words: angina pectoris, diagnostics, laboratory and instrumental methods.

Relevance. Angina pectoris is a clinical manifestation of transient ischemia myocardium, which occurs as a result of acute discrepancies between the myocardial oxygen demand and its delivery.

Pathogenesis by three mechanisms:

1. atherosclerotic lesion of the coronary artery and the inability to provide increased needs (fixed coronary obstruction - stable angina)
2. transient vascular thrombus formation – platelet aggregates (unstable angina)
3. decreased coronary blood flow due to spasm or increased coronary tone (dynamic obstruction) [1]. A fairly significant proportion of episodes of myocardial ischemia may pass without symptoms of angina or its equivalents, up to development of silent myocardial infarction. "Economy and Society" No. 10(101)-2 2022 www.iupr.ru 366

Episodes of silent myocardial ischemia are usually diagnosed during the time of tests with physical activity and with a 24-hour ECG monitor, and also during routine ECG registrations.

Diagnosis of angina pectoris. The diagnosis of angina is clinical, based on a detailed analysis of the pain syndrome. Even in the absence of changes according to instrumental studies (including coronary angiography) the typical clinical picture gives reasons for diagnosing angina pectoris [6]. Functional studies for angina pectoris are necessary with several points of view:

1. the diagnosis must be verified by identifying ischemia during pain;
2. based on the data obtained, a high level can be assessed risk of an unfavorable outcome and further management tactics have been selected patient.

Objective data

Signs of atherosclerosis:

- tendon xanthomas, xanthelasmas, lipid arch of the cornea
- systolic murmur (mitral regurgitation with ischemic papillary muscle dysfunction)
- stenotic noise over the carotid arteries
- intermittent claudication with damage to the iliac arteries and Leriche syndrome.

Diagnosis of other diseases occurring with the syndrome angina pectoris (aortic heart disease, aortic aneurysm).

Laboratory methods.

1. blood lipids (dyslipidemia)

2. fasting glucose level (diabetes mellitus) Non-invasive examination methods. ECG at rest (interictal period) In 70% of ECG signs are absent or nonspecific character. ECG during an attack or during daily monitoring Ischemic ECG changes: ST segment depression, inversion T waves, ST elevation. These changes disappear immediately after cupping pain. Load tests (veloergometry (VEM), treadmill test). Load testing is considered a mandatory research method for angina pectoris. Represent the achievement of submaximal heart rate (individually for each patient, taking into account age and gender) with performing stepwise increasing loads under ECG control on bicycle ergometer or walking track. ECG signs, indicating the appearance of myocardial ischemia - horizontal or oblique ST displacement equal to or greater than 2 mm or increase in displacement relative to the initial level. Stress is an ECHO. Performed to verify the diagnosis of IHD. Disturbances in the movement of the LV walls are detected: zones of hypokinesia or akinesia. Perfusion isotope techniques[6]. The method allows us to identify areas of the myocardium with impaired blood circulation using injection isotopes: thallium or technetium. Stress methods are also used: physical activity or medications (dipyridamole, adenosine). Radionuclide ventriculography (radioactive iodine albumin) – assessment of myocardial contractile function. Test with ergometrine. Performed for diagnostic purposes vasospastic angina. Indications for testing are spontaneous attacks of chest pain due to ischemic genesis with negative results of non-invasive and invasive examination methods. Coronary angiography is a method of X-ray studies of coronary arteries using selective filling coronary vessels with a contrast agent.

Conclusion. Main indications:

- patients with stable angina pectoris of class I-II, who have had myocardial infarction
- patients with post-infarction aneurysm and progressive (left ventricular) heart failure
- patients with stable angina pectoris III-IV FC with ineffectiveness antianginal therapy
- patients with stable exertional angina with leg block His bundle in combination with signs of myocardial ischemia according to myocardial scintigraphy
- patients with ischemic heart disease in combination with aortic heart defects, requiring surgical correction
- patients with obliterating atherosclerosis of the lower arteries limbs referred for surgical treatment
- patients with coronary artery disease with severe heart rhythm disturbances, requiring clarification of genesis and surgical correction.

Contraindications:

- in the presence of fever
- for severe diseases of parenchymal organs
- with severe total heart failure
- in acute cerebrovascular accidents
- in case of severe ventricular rhythm disturbances.

"Economy and Society" No. 10(101)-2 2022 www.iupr.ru 368 Ventriculography - LV contrast, performed during CAG, which makes it possible to evaluate a number of important hemodynamic parameters:

- detect regional disorders of LV function (hypo and akinesia)
- diagnose LV aneurysm
- identify intracavitary formations (mural thrombi and tumors)
- assess the condition of the heart valve apparatus
- assess LV systolic function
- Functionally significant is: occlusion, stenosis more than 75%, main trunk 50% or more.

Used sources:

1. Belaya, O. L., et al. "The effect of Mexidol on the antioxidant status of patients with coronary heart disease with coronary heart disease." *Clinical Medicine* 83.10 (2005): 57-60.
2. Galyavich, A. S., and L. R. Salakhova. "Atorvastatin and concentration fatty acids in the blood of patients with coronary artery disease." *Atherosclerosis and dyslipidemia* 1 (2011).
3. Lipovetsky, Boris. *Dyslipidemia, atherosclerosis and their relationship with coronary heart and brain disease*. Litres, 2022.
4. Mirolubova, Olga Alekseevna, et al. "Features of immune status in patients with coronary heart disease with obesity and atherogenic dyslipidemia." *Problems of Endocrinology* 46.4 (2000): 14-16.
5. Abdukodirov Sh.T., "The Main Etiological Factors, Methods of Prevention and Treatment of Meningitis." - *International Journal of Scientific Trends - (IJST)* Volume 2, Issue 2, February, 2023. PAGE 141-148
6. Pankrushina, Alla Nikolaevna, Elena Viktorovna Karaeva, and Larisa Alexandrovna Kozyreva. "On the issue of the relationship between fat deposition and dyslipidemia in patients with coronary artery disease." *Vest. Tver State University. Ser. Biology and Ecology* 1 (2005): 67-71.
7. Sergienko, Igor Vladimirovich, Alexey Arkadyevich Ansheles, and Valery Vladimirovich Kukharchuk. "Dyslipidemia, atherosclerosis and coronary heart disease: modern aspects of pathogenesis, diagnosis and treatment." (2018).