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PARTICULARITIES OF MANAGEMENT
IN MEN'S STABLE ANGINAElena SAMOHVALOV¹, Liviu GRIB¹,
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Dorin PANTELEICIUC², Alina TOMA¹,¹Departament of Internal Medicine, SMPHU N. Testemitanu,²SMPI MCH Sfanta Treime,³Hepato-Surgical Laboratory, SMPHU Nicolae Testemitanu**Introduction**

In the US the AP has a prevalence of 3.3%, for men – 3.4%, and for women – 3.2%. In the European countries, according to the data of European Society of Cardiology (ESC), the prevalence of AP raises increases with age for both sexes: from 4-7% for men aged between 45 and 64, and from 5-7% from the women of the same age, from 12-14% for the men aged between 65 and 84 and 10-12% for women of the same age [1, 2].

The most common AP complication is the acute myocardial infarction (AMI). In the United States the prevalence of the myocardial infarction among adults aged ≥ 20 is 2.8%, 4.0% for men and 1.8 for women. The scientists, who studied this field, have calculated that every 43 seconds an American citizen may develop AMI [1]. According to population studies of Olmsted County and Framingham, the patients with AP develop AMI in 3.-3.5 % per year, so in 30 patients with AP, the AMI progresses in one person [2, 5].

In the United States, IHD causes 146.5 deaths per 100000 of population among men and 80.1 per 100000 of population among women. IHD is responsible for 25.3% of deaths [4, 5]. In Europe, IHD is responsible for 1.8 million of deaths per year, which corresponds to 20% of men and 21% of women. In the Republic of Moldova the death rate because of IHD per 100.000 of population is 138 per men and 51 per women, simultaneously, Romania presents a death rate approximately 2 times smaller: 75 per 100.000 of population – men and 21 per 100.000 – women, and the highest death rate because of IHD is in Russia: 186 per 100.000 of population – men and 44 per 100.000 of population – at women [6].

Various observational studies have proved the existence of sex differences both in clinical and paraclinical presentation, and in therapeutic options which are not effective and safe in equal measures for men and women. At the same time, it has been proved that the men are involved to a lesser extent in the population studies pointing the cardiovascular diseases, so from 62 randomized studies in Europe only 33.5% of participants were women [3,

5]. It was found that men with AP who seek medical attention have a superficial approach, involving more frequently the noninvasive methods versus the invasive methods, and they have a lesser possibility than men of revascularization treatment. So, among the men with AP, 4.2% of them dispose of revascularization, meanwhile only in 2.4% of women with AP dispose of this option of treatment [2, 5].

Taking into consideration the growing of the incidence of AP in women, the determination of a late diagnosis because of clinical atypical manifestations and the reduced involvement of women with AP in population studies, we intend to study the AP peculiarities of women from the Republic of Moldova, which means an actual health and social problem.

The aim of the study: to study the etiological, clinical and paraclinical peculiarities and the treatment of stable angina in men.

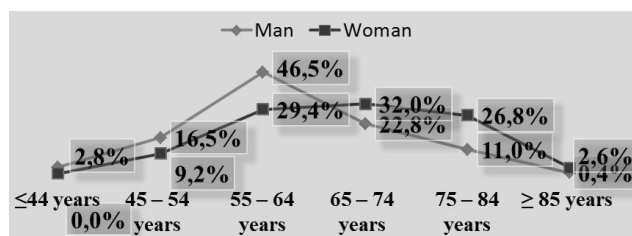
Objectives of the study. To study the cardiac predisposing factors and comorbidities in men with stable angina. To analyze the peculiarities of clinical evolution of stable angina in men. To evaluate the paraclinical results in patients that was included in the study. To evaluate the treatment of stable angina in men.

The study included 116 patients with AP, admitted to the Municipal Hospital *Sfanta Treime* and the Cardiological Institute during September 2015 – November 2016. Diagnostic of Stable Angina was determined by clinical criteria: anamnesis, clinical manifestations, objective data; instrumental examination: electrocardiography in all patients, effort test and coronary angiography in patients selected for revascularization by coronary artery bypass grafting, Holter monitor ECG, stress test medication in a group of patients for technical reasons; Laboratory tests: lipidogram, coagulation, blood glucose, blood counts in all patients, and markers of myocyte injury in some patients with UAP for financial reasons.

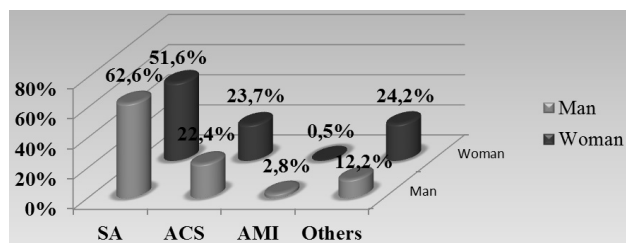
Results and discussions

According to the study goals and objectives, we analyzed in detail AP patients with predisposing factors to determine, comorbidities, clinical manifestations and complications, results paraclinical specific treatment and preventive measures in these patients. Starting from the paper's purpose patients were divided into 2 groups according to sex. In our study group were predominantly men, numbering 67, which constituted 57,8%, compared to women – 49 which corresponds to 42,2%. AP increased prevalence among men is explained by the fact that women have a protective role of ovarian hormones in premenopausal period. We aimed to evaluate

patients in the study depending on age and sex, the data is illustrated in the following graphic.



In patients aged up to 64 years, AP predominates in men than women: ≤44 years (2,8% vs 0%), 45-54 years (16,5% vs 9,2%); 55-64 years old (46,5% vs 29,4%) and after age 65, AP prevalence is higher in women compared to men: 65-74 years old (32% vs 22,8%); 75-84 years old (26,8% vs 11%); ≥85 years (2,6% vs 0,4%). This phenomenon can be explained by the combination of a new risk factor in women and certain post-menopausal and longer life expectancy of women than men [1, 4].



Analyzing the results, we note that the initial diagnosis of AP was established more frequently in men (62.6%) compared to women (51.6%). Acute Coronary Syndrome was suspected equally to men (22.4%) and women (23.72%). At the same time, women were hospitalized more frequently with other diagnoses (24.2%) vs men (12.2%).

According to the pain location, we can observe that in men typical retrosternal pain and precordial pain is determined 82,4% vs 88,5% in biggest proportion compared to women's. At the same time, for women's prevailed pain in the atypical locations in 5.2% and missing of the pain in 12.4%. This results is explaining by a big prevalence of atypical clinical picture of AP.

Analyzing this obtained results, we can observe, that men's pain radiates predominantly on a left shoulder – 67.2 % vs 48.4 %, during the time that extension of the pain in other regions is present more frequently for women's. In the left shoulder and hand – 17.8% vs 9.8%, interscapulo – vertebral 17.8% vs 14.8%, throat – 8% vs 6.6%, mandible – 3.2% and other locations – 4.8% vs 1.6%. Studying the data obtained, we note that in most of the patients, the AP gives the administration of nitroglycerin, a rate less prevalent in men (59.1%) than in women (62.3%).

Anginal pain at rest was determined that yield more often in men (21.5%) than in women (17.1%), and improving crisis management nitroglycerin angina both at rest and was in an amount almost equal to both sexes 19.4% vs 20.6%. Various observational studies have proved the existence of sex differences both in clinical and paraclinical presentation, and in therapeutic options which are not effective and safe in equal measures for men and women. At the same time, it has been proved that the men are involved to a lesser extent in the population studies pointing the cardiovascular diseases, so from 62 randomized studies in Europe only 33.5% of participants were women [Stramba-Badiale M., 2009]. It was found that men with AP who seek medical attention have a superficial approach, involving more frequently the noninvasive methods versus the invasive methods, and they have a lesser possibility than men of revascularization treatment. So, among the men with AP, 4.2% of them dispose of revascularization, meanwhile only in 2.4% of women with AP dispose of this option of treatment. In the study group gr II IC prevailed in almost equal proportion in both sexes, women (57.8%) vs men (59.1%), followed by IC gr. III (36.2%) vs. (35.6%). Gr. IV IC and IC gr. I was in the minority.

We should notice that the anti-ischemic therapy, most commonly administered beta-AB, slightly more prevalent in men (73.2%) vs (68.6%), BCC, commonly administered to women (56.2%) vs (44.5%) and less nitrates: 14.9% for women vs 12.2% men. The cytoprotective benefited equally to men (41.3%) and women (39.2%). For prophylactic antiplatelet prevailed slightly more prevalent in men (71.2%) vs women (70.3%). Statins and anticoagulants were given less frequently in women.

Conclusions

Angina pectoris is higher in men than in women (57,8% vs 42,2%). The rate of pathology is changing with age, up to 64 years, angina is more frequent is meat in men (65,8%) vs 38,6 in women, and after the age of 65 years, women prevail (61,4% vs 34,2%). In patients with angina clinical picture was more often represented by the retrosternal pain in 52,7% and dependent in physical exertion in 68,5% of medium intensity, with a duration of 5-10 minutes at those with stable angina (15,9%) and 20 minutes from those with unstable angina (14,7%), that were ameliorated after nitroglycerin intaking. Men representing the angina pectoris have administrated the pharmacological treatment mostly with: notice that the anti-ischemic therapy, most commonly administered beta-AB, slightly more prevalent in men (73.2%) vs (68.6%), BCC, commonly administered to women (56.2%) vs (44.5%) and less nitrates: 14.9% for women vs 12.2% men.

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MANAGEMENT OF STABLE ANGINA IN MEN (LITERATURE REVIEW)

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Stable angina: historical and contemporary data

The classical description of Stable Angina, which is valid and today, has been made for the first time by William Beberdeb in 1772. His article about almost 20 patients called “Some considerations about chest diseases”. He made a very detailed and excellent description, since the Stable Angina is called up today Heberden’s angina [1, 5]. He described very clear its precipitation to the effort and emotions. Hunter died suddenly, in 1793, at the age of 65, and at the autopsy made by his disciple Edward Jenner it was found the intense coronary artery ossification. These findings allowed the determination of a relation between Stable Angina and coronary disease [8, 9]. Then, in 1799, the scientist Parry linked the Stable Angina problem with the poor blood flow with the obstruction of the coronary arteries, and in 1809 the well-known scientist Bums said that Stable Angina

develops because “offer of energy and exhaustion are not balanced”. This important conception remains valid up today [5].

In 1933, the famous Britain cardiologist Sir Thomas Lewis launched the concept that ischemia includes not only changes in the structure of coronary arteries, but and in and their tonicity, therefore a supply deficit may be caused by inadequate coronary tone and the deficit can cup by vasodilation [7, 9]. These methods remain today of major importance in the diagnosis of Stable Angina, very informative, accessible and safe at the same time [6, 7]. An important step in the diagnosis of the Stable Angina was innovation in technique viewing of coronary arteries. Selective coronary angiography was introduced by Mason Sones in 1959 in the United States. He relied on the works of German doctor Werner Forssmann, who in 1929 tried this method by himself by inserting a catheter through the cubital vein to the right atrium. Later he and is honored with the Nobel Prize for developing the method of the human body probing.

Angina particularities at men; Trigger-factors

The subclinical signs of atherosclerosis, such as thickness measurements intimates environments, can also identify women before menopause, especially when there are present some risk factors. Flow-mediated vasodilation of the brachial artery decreases with age at menopause.

Dyslipidemia. Throughout life, men are subject to a number of hormonal changes, including those associated with puberty. Each of these variations can alter hormone levels in serum lipoproteins. At birth and during childhood cholesterol levels is the same for girls and boys. After the age of 20 years, in both sexes, LDL-cholesterol tends to increase, however, with a higher rate in men. Besides reducing overall levels of HDL cholesterol, and changes occur in the proportion of its subtypes, with obvious reduction HDL2 particle considered to be more active in the transport of cholesterol [2, 4].

Hypertriglyceridemia is also an independent risk factor for ICC stronger for men than women. A meta-analysis of 17 studies showed that the relative risk for hypertriglyceridemia CI was raised by 32% in men and 76% women. In the study Lipid Research Clinics’ Follow Up Study determined that the level of HDL-cholesterol and triglycerides are powerful predictors for the ICC to women than LDL and total cholesterol [1, 2].

Hypertension. Vasodilation is determined by the increase of bioviability of nitric oxide, inhibition of proliferation of smooth muscle cells in vessels,