

# THE QUALITY OF MEDICAL AND DIAGNOSTIC ASSISTANCE TO ACUTE MYOCARDIAL INFARCTION

**Nuritdinov N.A.**

*Tashkent medical academy, Tashkent, Uzbekistan.*

**Purpose of the study:** Given the high incidence of myocardial infarction (MI) as a medical and social problem, the purpose of the study was to examine the quality of medical and diagnostic assistance to this category of patients.

**Material and methods:** To this end, a retrospective analysis of a sample of case histories of persons hospitalized in 1 clinic of the Tashkent Medical Academy, had a final diagnosis of acute or recurrent MI. The sample size was 120 patient records.

**Results:** The study found the average age of men was 62 years, women - 69 years. Mortality in MI in different years ranged from 10 to 14%. Share transmural myocardial infarction in men ranged from 20% to 42%, and for women - from 18% to 35%. The average length of hospital stay did not differ in men and women. Hospitalization of patients with myocardial infarction in 62% of cases carried ambulance, but 34% of patients were brought to the emergency room by relatives or accessed independently. The main reasons for the delay is caused by myocardial infarction admissions to hospital are late-seeking patients for medical care (the time from symptom onset to calling a doctor is 53.2% of the time, passed before admission), the shortcomings in

the organization of medical care, lack of qualified doctors. Only 72% of patients hospitalized within the acute phase of MI. About half of the patients hospitalized for the first 5 hours of the disease and the vast majority - within the first 12 hours. Correlation of clinical diagnoses with standard criteria MI revealed that certain criteria to meet them only 50% of all cases of possible MI - 40%, and 10% of MI diagnosis was not justified. Timely diagnosis of myocardial infarction can be assumed only 79% of cases. Clinical characteristics and localization infarction volume were found to be inadequate in 22% and 26%, respectively. Evaluation of the quality of diagnostic procedures revealed numerous shortcomings in the implementation of laboratory and instrumental diagnostics in patients with MI - rare use of stress tests, the lack of laboratory monitoring of coagulation, non-use of modern laboratory markers of myocardial necrosis.

**Conclusions:** Organization of practical registers is of great importance, as it allows for a fairly short period of time to improve the provision of care for patients with myocardial infarction. It requires strict control of aid in the pre-hospital and hospital stages.

## PREDICTORS OF THE FORMATION OF CARDIOVASCULAR COMPLICATIONS IN PATIENTS WITH ASTHMA

**Pasiyeshvili L., Pasiyeshvili T., Ptushchenko N.**

*Kharkiv National Medical University, Ukraine*

**Actuality:** Asthma refers to those diseases which have a chronic relapsing progressive and can lead to the involvement in the pathological process not only respiratory tract but also many organs and systems. Genetic predisposition of the disease with the polymorphism of many genes (participation in the process of more than 20 different genes has been proved) provides the genetic predisposition and the development of complications. The formation of complications with the participation of the cardiovascular system aggravates the clinical symptoms. Thus, a number of works proved that asthma may involve a change in blood pressure and the occurrence of arrhythmias and cardialgias; and these changes are saved in the remission. These changes are associated with the development of endothelial dysfunction that occurs both due to violation of the cytokine balance in favor of his proinflammatory level and in violation of systolic and diastolic left ventricular function.

**Aim:** To evaluate the effects of the insertion-deletion polymorphism promoter gene of endothelial NO-synthase (eNOS) T-786C for the development of cardiovascular complications in patients with asthma.

**Materials and methods:** The study involved 42 patients in age  $41,6 \pm 6,3$  years and disease duration of 5 to 17 years. Among the patients were women (73.8%). The control group consisted of 50 healthy people of similar age and gender. The classification which were developed by an international

group of experts (GINA Report - Global Initiative for Asthma Management and Prevention) in the edition of 2008 in formulating a diagnosis used. The classification was based on the degree of asthma which severity assessment was carried out according to the clinical and functional signs of bronchial obstruction.

Analysis of polymorphic DNA-locuses was performed by polymerase chain reaction of DNA synthesis with electrophoresis detection. DNA was isolated from whole blood leukocytes by the reagent "DNA rapid blood" (a diagnostic test system "SNP-Express" T-786C promoter eNOS gene, Liteh, Russia).

Statistical analysis of the results was carried out by SPSS package (Statistical Package for the Social Sciences), and the application program «Statistica 6.0».

**Results:** The study showed that one of the possible predictors of formation of endothelial dysfunction in patients with asthma is a change in the eNOS gene polymorphism. This change is characterized by the predominance of the C-allele carriers. Thus, in the control group (50 patients) range genotypic eNOS gene was presented in this way: TT genotype were recorded in 24 patients (48.0%); TC genotype - in 23 cases (46.0%) and pathological genotype CC - 3 patients (6.0%). Patients of the main group with asthma range genotypic was presented in this way: TT - in 19.0% (8 patients), TC - in 52.4% (22 patients), CC - in 28.6% (12 patients). Thus, in

individuals of the main group with isolated asthma in 4.8 times more often recorded pathological CC genotype with respect to the control group. It was regarded as the contact part T - 786S polymorphism eNOS gene in the pathogenesis of disease, the progression of the endothelial dysfunction and thus broncho-alveolar complex tissue hypoxia.

A comparison of these genotypes with the clinical picture of the disease showed that the occurrence of asthma was more common after the age of 30 years; there were dominated persons with 2 and 3 stages of the disease with the TC genotype (45.2%). The aggravation of the disease accompanied by an increase in blood pressure in 11 cases, while 8 patients had genotype CC and 3 patients had genotype TC. There were complaints and clinical symptoms of cardiovascular disorders: increasing BP (11 cases), arrhythmias and conduction (9 cases), cardialgia (16 cases) in patients with CC genotype asthma quite early and often (3-5

years of onset) than in the other groups (genotype TT - more than 8 years of age and genotype TC - 7-8 years). Dyspnea in the exercise was recorded in 23 patients (54.8%), while in 12 cases it was the C-allele carriers.

**Conclusions:** Pathological genotype of the eNOS gene promoter (CC) prevails in patients with asthma, which can be considered as a basis of the increase the tone of the coronary arteries occurs, tendency to spasm coronary arteries and vasoconstrictor effect the vessels of the pulmonary circulation. These factors can lead to exacerbation of the disease.

The predominance of C-allele carriers promoter eNOS gene T-786C leads to the depression enzyme eNOS, which is the cause of reducing the synthesis and release of nitric oxide and endothelial dysfunction. Consequently, carriers CC genotype of the eNOS gene have an increased risk of developing severe forms of asthma and cardiovascular complications.

## CARDIOVASCULAR RISK FACTORS IN ELDERLY PATIENTS

**Pytetska N.**

*Kharkiv National Medical University, Kharkov, Ukraine*

**Introduction:** In the middle of the last century the structure of morbidity and mortality has dramatically changed. Mass deaths from infectious diseases were replaced by an increase of mortality from diseases of cardiovascular system, which became an epidemy in the developed countries. A sedentary lifestyle, overeating, excess of information and frequent emotional stress dramatically changed the habitat of modern people, that had a negative effect on their health. All it has led to appearance of diseases associated with severe metabolic disorders and disorders of the cardiovascular and central nervous systems. Arterial hypertension (AH) is multifactorial disease. Timely detection and elimination of risk factors related to lifestyle, such as smoking, physical inactivity, irrational nutrition, obesity, dyslipidemia as well as risk stratification, individual approach to the therapy of hypertension and determination of prognosis in a particular patient will be able to significantly improve the efficiency of treatment and prevention.

**The aim:** Determination of modified cardiovascular risk factors in hypertensive elderly patients.

**Materials and methods:** 74 patients with hypertension I-III degree from 60 to 74 years (average age  $64.63 \pm 0.68$  years) were included to our study. All patients underwent a complete clinical examination with a measurement of the anthropometric parameters. Obesity was detected using body mass index. We used the waist-hip ratio to determine the type of fat distribution. Central (abdominal) obesity was

determined according to the criteria recommended by the NCEP ATP III (2001). In order to identify the main modified risk factors we conducted a survey of patients we used an in-house developed questionnaire. Among the nutritional factors a special attention was paid to salt and alcohol consumption.

**Results:** Obtained data showed the percent patients with overweight and obesity (39.2% and 45.9%, respectively) was significantly higher than the percent of patients with normal body weight which amounted to 14.9% ( $p < 0.001$  in both cases). Abdominal type of fat distribution, which contributes to formation or progression of already existing metabolic syndrome dominated (51.3%) over intermediate and ginoid type of fat distribution (27.1% and 21.6% respectively) in this patients. Central obesity according to NCEP ATP III criteria was detected in 93.2% of patients. Analysis of anamnestic data showed that only 8.1% of patients had regular exercises (morning exercises, walking 3 km/day). In 51.3% of patients exercises had seasonal character (work on a plot of land). 40.5% of patients had excessive salt intake, 60.8% of the patients drnd ank alcohol moderately, 2.7% of patients were smoked. Moreover 50% of patients had frequent 8.1% of the persons had constant emotional stress.

**Conclusions:** Most of elderly patients with hypertension had obesity, abdominal type of fat distribution and central obesity according to NCEP ATP III criteria. Low physical activity, excessive salt intake, and frequent emotional stress were common among the patients.