

## CHARACTERISTIC OF MYOCARDIAL INFARCTION

Myslitski A.S., Yeutushyk K.M., Glebik O.V.

Grodno State Medical University, Belarus

Department of Patalological Anatomy

Research supervisor: MD, Professor Basinskiy V.A.

**Background:** Pathology of the cardiovascular system (CVS) today is one of the most popular among the population. Large proportion belongs to coronary heart disease(CHD) in the structure of morbidity. WHO estimates that in 2012 17.5 million people died from cardiovascular pathologies, accounting for 31% of all deaths in the world. Now, many authors note the "rejuvenation" of myocardial infarction (MI) - one of the most frequent and terrible forms of CHD. Untimely detection and medical care often leads to death.

**Aim of the study:** Post clinical and morphological characteristics of myocardial infarction according to the autopsy.

**Methods:** The autopsy report from the archives of pathological departments of Grodno and Grodno region in 2014 - 2015.

**Results:**According to the autopsies during the analyzed period, the number of patients who died from myocardial infarction was 211 cases. Of these in 2014 – 104 (49.29%), in 2015 – 107 (50.71%). Most patients died in the hospital – 166 (78.67%), at home – 40 (18.96%). 5 patients died in the ambulance. Average hospital stay was 104.83 hours. Ration of male and female persons in the analyzed period was 1.2: 1 (men – 117, women – 94). The average age of the deceased was 70.7 years. People aged 60 to 75 constituted the predominant majority – 89 (42.18%), between 44 and 60 – 38 (18%), 25 to 44 – 2 (0.95%), 75 to 90 – 75 ( 35.55%). 7 (3.3%) – the deaths occurred in the age group 90 - 98 years. The working age died in 31 cases (14.67%) men and 1 case (0.47%) female. Most died during winter (58 cases, which was 27.49%), especially in January (21 cases - 9.95%).

Most often myocardial infarction was located at the rear - 47 cases (22.27%), anterior-lateral - 37 (17.54%), front - 34 (16.11%), posterior-lateral - 14 (6.63% ), interventricular septum - 7 (3.32%), the top - 4 (1.9%), the sidewall - 4 (1.9%), combined localization - 64 cases (30.33%).

In 196 cases myocardial infarction was transmural left ventricular (92.89%), in 9 (4.26%) - left ventricular intramural, in 2 (0.95%) - subendocardial left ventricle, single cases of myocardial infarction subepicardial and transmural myocardial infarction of the right ventricle, 2 cases-combinations thereof.

The etiological factor of myocardial infarction was atherosclerosis of the coronary arteries of the heart. It was detected in 100% of autopsies. Morphological signs of hypertension were detected in 191 cases (90.52%). Cardiac tamponade as the immediate cause of death in MI occurred in 49 cases (27.22%). Frequent comorbidities were atherosclerosis – 206 cases (97.63%), diabetes - 29 (13.74%), obesity - 25 (11.85%), COPD - 19 (9%). The two men were identified drunkenness varying degrees that, without a doubt, contributed to the death.

**Conclusions:** The study showed that the myocardial infarction is more common in the elderly against the background of atherosclerosis and hypertension. Transmural myocardial infarction of left ventricle is most prevalent. The most frequently myocardial infarction was observed in men of working age.

## CLINICAL AND MORPHOLOGICAL CHARACTERISTICS OF CENTRAL NERVOUS SYSTEM TUMORS

Mikhalevich Y., Klimets D., Glebik O.V.

Grodno State Medical University, Belarus

Department of Patalological Anatomy

Research supervisor: MD, Professor Basinskiy V.A.

**Introduction.** Neoplasms of the central nervous system are relatively rare (less than 2% in the structure of the overall cancer rates), but the high mortality and disability of patients causes

health and social significance of the problem. Over the past 10 years in Belarus annually were registered about 450-550 new cases of tumor disease of the central nervous system.

**Purpose.** To characterize a clinically and morphologically the tumors of the central nervous system.

**Materials and methods.** Data of the autopsy reports of deaths in the city of Grodno and Grodno region for the period 2012 - 2015 years were analyzed.

**Results.** In the analyzed period of 2012 – 2015 years from a brain tumor 32 people were died: in 2012 - 8 cases (25%), 2013 - 9 (28%), in 2014 - 13 (40,6%), 2015 - 2 (6, 25%).

In Grodno it was registered 20 cases (62.5%), in the Grodno region - 12 (37.5%).

The majority of deaths occurred in the spring (40.6%) - in the month of March. Age of the dead ranged from 32 to 91 years. Elderly people (55-75 years old) accounted for the vast majority - 41% (13 cases), middle-aged (30-55 years) - 37.5% (12 cases), old age - 18.7% (6 cases).

The ratio of men and women varied from 1: 1 in 2012 and 2014, up to 2: 1 (67% of men and 33% women) in 2013. 100% of the deaths in 2015 occurred in the male sex.

Tumors were localized in the vast majority in the cerebral hemispheres (97%) in the right hemisphere - 40.6% (12 cases), in the left hemisphere - 12.5% (4 cases), both hemispheres - 10.3% (3 cases) and other areas.

The primary lesion not of one lobe of the brain have been identified, but several. The parietal-temporal region was the most frequent – 15,6 (5 cases).

Of the variety of microscopic forms of primary tumors of the central nervous system the most frequent were astrocytic tumors - 14 cases (43.75%), including glioblastoma - 9 cases (28.12%), astrocytoma - 4 cases (12.5%), astroblastoma - 1 case (3.125%). The second most frequent were meningovascular tumors (meningioma) - 5 cases (15.6%). Also the deaths from anaplastic ependymoma (two cases), embryonic tumors (medulloblastoma - 1 case, ependymoblastoma - 1 case), B-cell lymphoma - 3 cases, craniopharyngioma - 3 cases of pituitary adenoma - 3 cases were noted.

By the evaluation according to the malignancy grade (by Grady) the tumor were distributed as follows: highly malignant tumors (G4, G3) occurred in 14 (43.75%) and 3 (9.38%) cases, respectively, tumor G1 in 34.37% (11 cases), G2 in 12.5% (4 cases). In 6 cases, the discrepancy between clinical and postmortem diagnoses was observed.

## CLINICAL AND MORPHOLOGICAL CHARACTERISTICS OF GLIOBLASTOMA.

Hanetskaya K., Budzko V., Glebik O.V.

Grodno State Medical University, Belarus

Department of Patalogical Anatomy

Research supervisor: MD, Professor Basinskiy V.A.

Cancer is one of the most current health and social problems due to high mortality and disability of population. In 2013, in the Republic of Belarus 491 new cases of tumor diseases of the central nervous system were registered. Glioblastoma is a highly malignant and the most frequent brain tumor. The incidence of glioblastoma in the world is about 3-4 cases per 100,000 people per year, which is about 240,000 people. Most often glioblastoma occurs in males aged 40-55 years.

**Objective:** To give the clinical and morphological characteristics to the glioblastoma.

**Methods:** Data protocols of autopsies of the dead in Grodno and Grodno region for the period 2012-2015 years were analyzed.

**Results:** During the period of 2012-2015 it was identified 32 cases of deaths from tumors of the central nervous system. Glioblastoma occurred in 9 cases (28%). In 2012- 4 cases(44,4%), 2013- 2(22,2%), 2014- 2(22,2%), 2015- 1(11,1%). The ratio of men and women was similar in 2013 and 2014 years -1:1, in 2012- 2:1(80%- men, 20%-women), 2015- 1 case(male). The average age of the diseased was 58,5 years. Two deaths were observed in the age group from 30 to 49 years, in a group of 50 to 59- 2 cases and the prevailing majority of 60 to 79- 5 cases. In the working age died 4 men (44,4%), women- 2 (22,2%). Most died in the spring (33,3%) in March.