were processed using standard techniques. The type definition of plaques was based on morphological classification, as well as on macroscopic and histological images of hematoxylin-eosin stained sections and on histochemical methods – silver and orcein impregnation. To determine the expression of mast cells in the affected vessels, we have used anti-MCT immunohistochemical stain. Macrophages were identified using the CD-68 specific marker and the newly formed vessels – respectively, by using CD-105 (Endoglin), which is specific.

Results and conclusion: The evaluation of the results was based on determining the density and intensity of the final reaction, reflected in the quantitative ratio of different zones of atheromatous plaques. Positively stained mast cells, macrophages and newly formed vessels were found in many types of atherosclerotic plaques, especially in adventitia and in the immediate vicinity of plaques and in subendothelial layers.

We found a statistical correlation between the plaque type and clinical data.

The immunohistochemical method is effective for determining mast cells, macrophages, and newly formed vessels of atherosclerotic plaques, directly reflecting many important pathogenetic elements of atherogenesis in patients with metabolic syndrome.

CD-105 is a valuable marker of angiogenesis of atherosclerotic plaques, intimal arteries and adventitial vessels, an indicator of the degree of variation in the pathological development of atherosclerosis - the factors that may be important in introducing modern methods of research, diagnosis, treatment and prognosis of these diseases.

Keywords: Atherosclerosis, metabolic syndrome, angiogenesis, mast cell, macrophage, stability of atherosclerotic plaque, acute cardiovascular syndromes

44. CLINICAL AND GENETIC STUDY OF NEURODEGENERATIVE DISEASES

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Introduction: Huntington's disease (HD) is a neurodegenerative genetic disorder that affects muscle coordination and leads to cognitive decline and psychiatric problems. It typically becomes noticeable in mid-adult life. HD is the most common genetic cause of abnormal involuntary writhing movements called chorea, which is why the disease used to be called Huntington's chorea.

The purpose: The study of clinical, molecular and genetic aspects of Huntington's disease.

The objectives: (1) Evaluation of the molecular mechanisms involved in the pathogenesis of Huntington's disease. (2) Studying the phenomenon of penetrance and anticipation in Huntington's disease. (3) Determining the clinical and laboratory features of Huntington's chorea and differential diagnosis with other diseases neurogenerative. (4) Evaluation of the possibilities of genetic testing and genetic counseling in families with Huntington's disease.

Materials and methods: There were analyzed clinical data and genetic aspects of 10 patients (5 men, 5 women) diagnosed with chorea Huntington, hospitalized in IMSP Institutul de Neurologie şi Neurochirurgie in 2006 – 2012 period. The patients that were diagnosed with other neurodegenerative diseases were excluded from the study. Used methods: anamnesis; genealogical tree; neurological examination; laboratory tests (CT, MRI, Ecoencefalografy).

Results: Genetic study was partially achieved. Can be confirmed autosomal dominant inheritance in three families; noncomplete penetrance and anticipation in 2 families.

Conclusion: Trinucleotide expansion causes: onset of disease, evolution of the disease, severity of symptoms. Huntington disease is transmitted autosomal dominant: each affected person has a carrier of mutation that is symptomatic or asymptomatic, penetration of gene is dependent on the number of trinucleotide repeats, gene instability causes anticipation phenomenon. Molecular diagnosis can be useful for confirming a diagnosis, assessing prognosis and for presymptomatic diagnosis.

Keywords: chorea, anticipation, penetrance, genetic counseling