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DIAGNOSTIC IMPORTANCE OF THE THICKNESS OF THE INTIMA-MEDIA COMPLEX OF CAROTID ARTERIES IN PATIENTS SUFFERING FROM HYPERTENSION AS A RISK FACTOR FOR THE DEVELOPMENT OF CEREBROVASCULAR DISEASES

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Carotid diseases are very important for the increase of total morbidity and mortality of the population affected by cerebrovascular diseases. The primary pathologic factor responsible for the diseases of the cerebrovascular system is atherosclerosis, and the measurement of the thickness of the intima-media complex (IMC) in the carotid artery extracranial segment represents a measurable indication of atherosclerosis. The thickness of the IMC of the carotid arteries is influenced by many factors such as local hemo-dynamics, wall stress, arterial hypertension, and other.

The aim of our research was to confirm the influence of hypertension as a risk factor for the development of cerebrovascular diseases which influence the thickness of the intima-media complex of carotid arteries in asymptomatic and symptomatic observed patients concerning gender and age.

The research was conducted in 100 patients of both sexes who were treated at out-patient department or while hospitalized at the Neurology Ward, with hypertension as the main risk for the development of the cerebrovascular diseases. The measurement of the IMC of the carotid arteries was conducted by the ultrasound examination, and the value of IMC>0,9 mm was taken as a border line between normal and pathologic findings.

The research included 100 patients, out of which 36 were male, and 64 female patients. All patients had elevated values of blood pressure. In the male group, just 33.3% of the patients were affected by a hypertension disease only, while the remaining 66.7% had also suffered a cerebrovascular insult, and they had arterial hypertension as a risk factor in their anamnesis, as well. In the female group of 64 patients, 31.3% had a hypertension disease, 68.75% also suffered a cerebrovascular insult, as well as arterial hypertension.

The measurement of the thickness of the IMC of the carotid arteries by the ultrasound method is important for the detection of the subclinical structural damage of the arterial walls and is a part of the algorithm for the assessment of the cerebrovascular risk in patients who suffer from the elevated blood pressure. There is a significant corre-lation among the thickness of the carotid IMC, hypertension disease, and cerebrovascular diseases.

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