

DOPPLER ULTRASOUND AND OPHTHALMODYNAMOMETRIC RESEARCHES IN THE
STUDY OF CAUSES OF INSUFFICIENT BLOOD FLOW IN BRAIN

E. Augustyniak, I. Świetliczko

Institute of Ophthalmology Medical Academy in Łódź

An ultrasonic detector of blood flow UDP-10 produced by Unipan was used to investigate 52 patients /43 male, 9 female/ with symptoms of insufficient blood flow in brain by the method of Doppler Ultrasound /DU/ in common carotid artery, superficial temporal and supratrochlear arteries.

An average velocity of blood flow in arteries, an indicator of the circulatory resistance in common carotid artery and the blood flow direction in supratrochlear artery have been determined. The achieved results have been confronted with the results of ophthalmodynamometry /ODM/, angiography of internal carotid artery and neurological examination. The final diagnosis based on the complex investigation has been determined to be homologous in 36 patients, alternative in 8 patients and implicit in 9.

In the group of 19 patients with one-sided occlusion of internal carotid artery DU confirmed that occlusion homologously in 10 patients. The obstruction was suspected in 6 patients. ODM diagnosed occlusion correctly in 14 of 16 patients.

In the group with bilateral occlusion of internal carotid arteries DU diagnosed it in 6 of 7 cases, ODM in 5 of 6.

In 2 patients with the occlusion of internal and common carotid arteries at the same side DU has been decided.

The results of DU and ODM were correct in the occlusions of cerebral arteries.