

ulceration of the fibrous cap in continuity with the underlying necrotic core. Since only scanty thrombotic material was observed in the arterial lumen, we can hypothesize that ischemic stroke was the result of embolization from a portion of a previous acute luminal thrombus. The ruptured plaque had a thin fibrous cap infiltrated by a great number of macrophages and T lymphocytes confirming the role of inflammatory cell in the cap disruption.

Conclusions: Daily monitoring of severe symptomatic ICA stenosis in patients with recent ischemic events may help detecting acute plaque rupture leading to urgent intervention and more effective prevention in high-risk patients.

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Can be useful the TCCD in detecting the presence of subdural hematomas? A new application of the parenchyma's-study with ultrasound.

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The parenchyma's study and the possibility to individualize subdural hematomas with tccd method represents a recent application. The controlateral insonation is recommended. The presence of acute hematomas with hemorrhagic component can be detected by the relief of hyperechogenic zones to the tccd. The problem related to the individualization of the iso and hypoechogenic hematomas can be sometimes resolved thanks to the presence of an hyperechogenic line placed between controlateral skull and brain. This line is originated from scattering's phenomenons among two structures with different density: the cerebral parenchyma and the stratum subdural and it represents a pathognomic picture in the survey of subdural hematomas. We bring 22 consecutive cases of subdural hematoma arrived in our neurological department during two years and diagnosed with CT scan. We underline that only three cases have not been individualized with tccd because of the absence of acoustic window. Also the presence of contextual areas in the subdural stratum characterized from recent bleeding, often can be detected easy. We also bring the possibility to document the presence of a value's reduction of PI (Pulsatility index) at level of the branches M2 of the middle cerebral artery (MCA) after the hematoma's evacuation : this

improvement of the cerebral perfusion could also explain the clinical condition's improvement of the patients after the hematoma's evacuation . Besides, the use of contrast agents and the digital post-processing elaboration (IN-OUT densitometric curves) with ROI's positioned in the not compressed parenchyma's areas (after the operation),it could individualize the reappearance of a good microcirculation. The TCCD method can also be applied during the the follow-up of the operated patients to document the complete disappearance of the subdural stratum without to submit the patients at serial CT scans.

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The prevalence of severe carotid stenosis in ischemic stroke patients with diagnosed metabolic syndrome

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Background: The metabolic syndrome (MetSyn), especially diabetes or dyslipidemias predisposes to cardiovascular disease or stroke development. We aimed to evaluate the prevalence of ipsilateral severe carotid stenosis (70%-99%) in patients with diagnosed MetSyn in non-selected population of acute ischemic stroke (IS) patients.

Methods: We analyzed 763 IS patients (426 women, 337 men) consecutively admitted on acute stroke care unit (1.01.2003-30.09.2005). MetSyn was diagnosed is presence of three from five disturbances (alimentary s. simple obesity, increased blood pressure, increased triglycerides, low HDL cholesterol, fasting hyperglycaemia) according to definitions of: National Cholesterol Education Program Adult Treatment Panel III (NCEP-ATP III). The ultrasonography of carotid arteries was performed with a 7.0-MHz duplex-type scanner Acuson 128 XP/10 C.

Results: MetSyn was diagnosed in 54.3% IS patients, with significantly higher prevalence in women (64%) than in men (42%). Severe carotid stenosis was observed more frequent in men than in women (9.4% vs. 3.4%, p=0.0003). In men population severe ipsilateral carotid stenosis was more frequent in subjects with diagnosed MetSyn (13.7% vs. 6.4%, p=0.03), in women population there was no differences in frequency of severe carotid stenosis in subjects with or without MetSyn (4.1% vs. 2.2% - not significant).

Conclusions: Over half of acute ischemic stroke patients have diagnosed MetSyn, 1.5 times more frequent in women than in men. Only in men ipsilateral severe carotid stenosis is observed more often in persons with than without MetSyn.