

NEUROSONOLOGY IN CENTRAL RETINAL ARTERY OCCLUSION – DOES SPOT SIGN HAVE A PROGNOSTIC VALUE?

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Introduction: Central Retinal Artery Occlusion (CRAO), the occlusion of the central retinal artery (CRA), result in retina infarction and vision loss, generally related to cardiac or arterio-arterial embolization. Neurosonology studies are important for etiologic and diagnostic work-up. Recently, a hyperechoic signal was reported within the distal portion of the CRA – “spot sign”. Some authors consider it to be an important predictive prognostic marker for persistent loss of vision since it may indicate calcified or cholesterol emboli and explain the low therapeutic success rate to thrombolysis.

Clinical Case: We report a 68-year-old female patient, with known arterial hypertension and diabetes mellitus type 2, who complained of acute, persistent, painless loss of vision in her right eye, except for the superior temporal visual field where figures could be noted. Ophthalmologic examination of right retina revealed a “cherry-red spot”. Carotid and intracranial color-coded sonography showed heterogeneous carotid plaques with irregular surface without hemodynamic significance. Ocular color-coded sonography identified sub-occlusive flow in ipsilateral CRA and “spot sign”. Thoracic angio-CT showed irregular and calcified atheromatous plaques in the ascending aorta and beginning of braquicephalic trunk. She was started on secondary vascular prevention. In clinical follow-up evaluation, two months later, no new vascular episode or visual improvement was seen.

Conclusions: In this report we present a CRAO case, in which neurosonology evaluation identified a “spot sign” in the CRA. We hypothesise that this finding may have prognostic value and therefore, neurosonology studies should be used in CRAO evaluation.