

BILATERAL AMAUROSIS DUE TO BRAIN ANEURYSM RUPTURE

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Terson's syndrome (TS) is a vitreous hemorrhage associated with subarachnoid hemorrhage (SAH) usually as a consequence of the rupture of a cerebral aneurysm¹. Studies showed an incidence of 40% following SAH². This syndrome may indicate a poorer prognosis compared to patients with only SAH, and may be related to rebleeding or the occurrence of coma after SAH^{1,3}. Vitreous hemorrhage probably is related to the rapid increase in intracranial pressure with compression of the central retinal vein and its choroidal anastomosis⁴. Conscious patients with SAH almost always report sudden onset of severe headache, which is also related to the rapid increase in intracranial pressure¹.

We report a patient with Terson's syndrome which after aneurysm embolization evolved with a dramatic bilateral blindness.

CASE

A 52-year-old woman came to the hospital with the complain of a intense headache. The relative who accompanied her affirmed that the patient got up in the morning, with intense headache, followed by loss of consciousness for more than 10 minutes. After regarding consciousness she presented vomit and complained that she wasn't able to see the inferior part of visual field. The past medical history showed arterial hypertension and cigarette smoker.

The patient so was destined to intensive care unit. In the examination it was detected arterial hypertension. Her mental status was clear with pupils reacting to light, language and memory preserved. She had no other neurological deficit except for a decrease of visual acuity. She had also nuchal stiffness.

MRI showed SAH and arteriography revealed a left communicating posterior artery aneurysm (Figure). The patient was

so submitted to an aneurysm embolization. After embolization, the patient was without complains. In spite of 48 hours later she evolved with a complete visual loss, noting only figures. Pupils were reactive to light. Due to this visual loss, an ophthalmological evaluation was performed with diagnosis of a bilateral vitreous hemorrhage. Then a bilateral vitrectomy was carried out

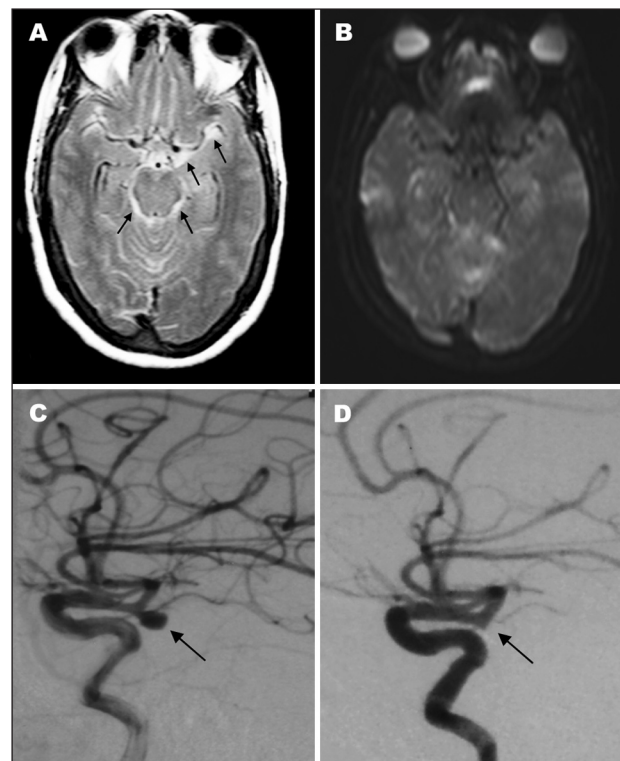


Figure. FLAIR MR image showing subarachnoid hemorrhage as hyperintense signal (A). Diffusion-weighted image (DWI) post-embolization (B). Arteriographies showing a left communicating posterior artery aneurysm (C) and post-embolization of left communicating posterior artery aneurysm (D).

AMAUROSE BILATERAL DEVIDA A RUPTURA DE ANEURISMA CEREBRAL

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without success. On follow-up the patient had a good neurological outcome staying with bilateral amaurosis.

DISCUSSION

Terson's syndrome is a frequent disease⁴ and it is caused by a vitreous hemorrhage associated with a subarachnoid hemorrhage usually observed in aneurysm rupture^{1,5,6}. Some authors suggest that it may occur as result of sudden increase of intracranial pressure, taking an effusion of cerebrospinal fluid inside optic nerve sheath⁷. Due to this, the sheath of posterior nerve region dilates and compresses the choroidal anastomosis located next to sclera and optic nerve beyond of retinal central vein. This results in a decrease of venous draining, occurring hemorrhage and edema. Simultaneously, intracranial hypertension takes to cerebral ischemia, stimulating vasomotor cerebral center elevating arterial pressure, impairing ocular condition⁸. There was not found a correlation between anatomical localization of the ruptured aneurysm and TS laterality⁴.

At the presentation of TS, unilateral or bilateral vitreous hemorrhage can be found. Studies show that unilateral must be treated conservatively and bilateral treated surgically with vitrectomy⁹. During the treatment the method consists in spontaneous resorption in the unilateral hemorrhage and pars plana vitrectomy in bilateral hemorrhage, both revealing successful results¹⁰.

In the evolution of patients after the treatment, we find different levels of visual losses⁸. We could observe as well that patients who did vitrectomy soon afterward vitre-

ous hemorrhage had a more effective rehabilitation. Some studies show good recovery of patients after surgical treatment^{2,9}. However, we couldn't find an evolution with bilateral blindness suggesting that our patient suffered a rare manifestation even with treatment advised by literature.

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