Rare and treatable cause of progressive visual loss

Ririko Takeda, MD

Goji Fushihara, MD

Daisuke Okada, MD

Hiroki Kurita, MD, PhD

A 58-year-old woman presented with a 6-month history of progressive left blurred vision without headaches or orbital pain. The neuro-ophthalmologic examination revealed reduced visual acuity (20/60) and inferior nasal field defect in the left eye. Visual field and acuity in the right eye was normal. There was no papillary defect but the fundus of the left optic nerve seemed slightly pale. MRI demonstrated a multilocular lesion at the left optic nerve to the optic chiasm with mixed intense signals (figure 1). Result of 3D CT angiography was normal. The patient underwent a left pterional craniotomy, which exposed subpial multiphasic hematoma at the right optic nerve to the optic chiasm. Sharp incision of the optic pia mater disclosed mulberry-like vascular malformation with partially thrombosed small vessels. A gliotic interphase between the malformation and normal neural tissue provided a plane of cleavage for total excision (figure 2). Histopathologic examination was consistent with cavernous malformation. The postoperative course was uneventful. Visual acuity improved to 20/40 in the left eye with resolution of visual field defect.

Figure 1 MRI of the patient

T1-weighted axial image (A) and T2-weighted coronal image (B) demonstrate multilocular lesion at the left optic nerve with mixed intense signals.

Department of Cerebrovascular Surgery, International Medical Center, Saitama Medical University, Hidaka-city, Saitama Pref., Japan.

Correspondence to: hkurita@saitama-med.ac.jp

Figure 2 Intraoperative photographs

Multiphasic hematoma and mulberry-like vascular malformation at the left optic nerve to the optic chiasm (A) was removed, preserving normal neural tissue (B).

Cavernous malformations are known to affect anterior visual pathways causing chiasmal apoplexy. The symptoms include acute or progressive visual loss, usually accompanied or preceded by retrobulbar pain or headaches.^{1,2} This case is a reminder that visual disturbance can improve remarkably by prompt surgical decompression. The level of awareness of this disease needs to be increased.

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