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Letter to the Editor

## Isolated photophobia as a presenting symptom of spontaneous subarachnoid hemorrhage

*Keywords:*
Photophobia
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*Dear Editor,*

A 59-year-old man with hypertension was admitted to the emergency department with a sudden onset of severe photophobia, 30 min prior to admission. There was no accompanying headache, vomiting, nausea, loss of consciousness, or seizure.

On physical examination, the only positive finding was moderate to severe photophobia. His neurological and fundoscopic examinations were completely normal. Computed tomography (CT) of the head revealed intraventricular hemorrhage in the third ventricle with mild extension to the perimesencephalic cistern (Fig. 1). Digital subtraction angiography (DSA) failed to reveal an aneurysm or arteriovenous malformation. Also, magnetic resonance imaging revealed no mass lesion and confirmed the CT findings (Fig. 2). As the initial diagnosis was nonaneurysmal, nontraumatic SAH, the patient was admitted to the neurosurgical intensive care unit. The follow-up period was uneventful and the patient was discharged home in stable condition eight days after the event. A repeat control DSA was performed one month later, without evidence of aneurysm or arteriovenous malformation.

The most characteristic initial symptom of SAH is the sudden onset of severe headache, frequently described as “the worst headache of my life”. Meningism, photophobia, nausea, vomiting, seizure, neck stiffness, and focal neurological deficits are all associated symptoms of SAH [1,2]. Isolated photophobia as a presenting symptom of SAH had never been reported.

Photophobia associated with SAH may be caused by vitreous hemorrhage, known as Terson syndrome, which has been reported in up to 15% of patients with SAH [3]. Fundoscopic examination can confirm the diagnosis as early as one hour after SAH. In our presented case, fundoscopic examination was normal, so the diagnosis of Terson syndrome was excluded. In this case, the mechanism of the photophobia was considered to be due to the involvement of the rostral midbrain in the vicinity of the Sylvian aqueduct of the third ventricle. A lesion in this area would involve efferent pupillary

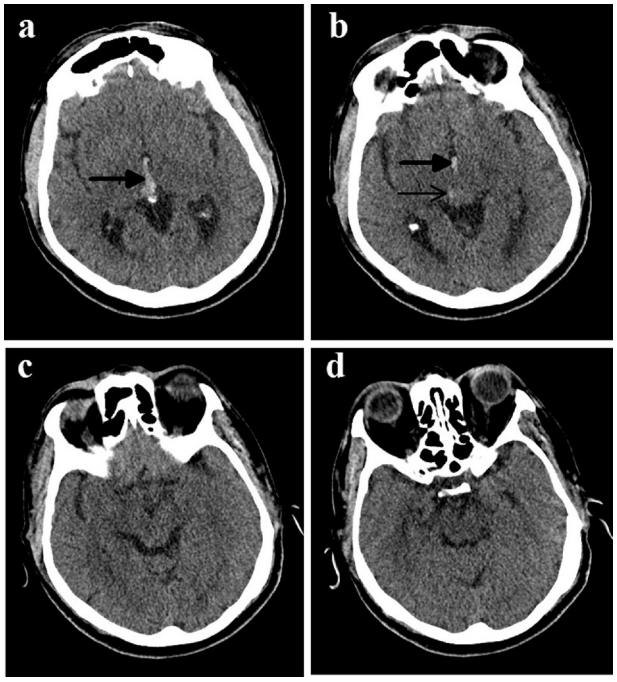


**Fig. 1.** Computed tomography of the head revealing intraventricular hemorrhage in the third ventricle (thick arrow), extending mildly to the perimesencephalic cistern (thin arrow).

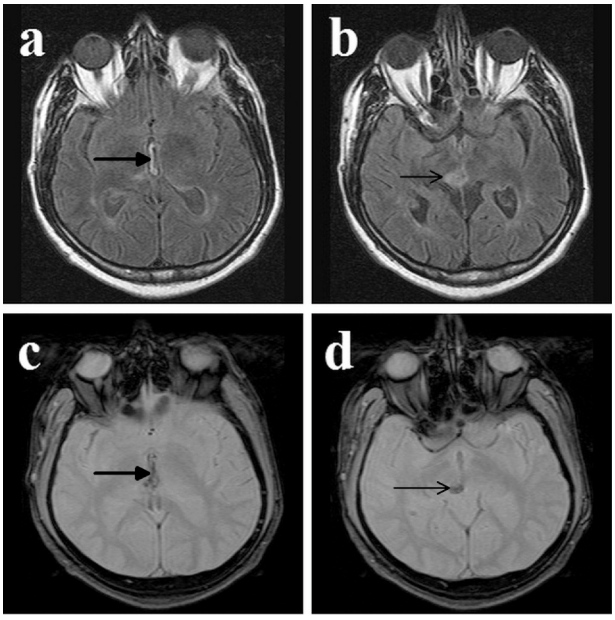


**Fig. 2.** Magnetic resonance imaging of the brain revealing intraventricular hemorrhage in the third ventricle (a, c), extending mildly to the perimesencephalic cistern (b, d).

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fibers on the dorsal aspect of the Edinger–Westhpal nucleus, which is associated with the response to light.

Although the classic symptoms of the SAH are highly suggestive of the diagnosis, SAH may present with atypical signs and symptoms. Isolated symptoms without a headache may cause further misdiagnosis. An increased index of suspicion is mandatory to diagnose SAH, whereas a delayed diagnosis is known to result in a poor outcome [1,2].

Although SAH classically presents with the acute onset of a severe headache, the possibility of an atypical presentation, such as isolated photophobia, should be considered. Furthermore, SAH must be added to the differential diagnosis of isolated photophobia.

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