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Symptomatic Expanding Cyst of the Septum Pellucidum

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A 17-year-old woman with chronic headache was referred to the outpatient clinic for neurosurgery. On the first visit she had clear consciousness with normal neurophysiological function. She claimed that she had been suffering from chronic daily headache since entering junior high school, which resulted in her decreasing school attendance and declining student performance. She underwent a brain magnetic resonance imaging (MRI) scan (Fig. 1), which revealed an expanding cyst of the septum pellucidum (CSP) and bilateral mild hydrocephalus. Although funduscopic examination did not reveal papilledema, her clinical history suggested increased intracranial pressure. Although a symptomatic expanding CSP was suspected, outpatient follow-up was performed until she and her family members deemed that she required surgical intervention. She continued to have intermittent headaches occurring especially in the early morning and during straining at stool and her headaches were relieved by intravenous glycerol injection. Four months later after the first visit, she required hospitalization for surgery. Neuroendoscopic fenestration of the CSP was done. Histological evaluation of the resected part of the cyst wall showed no evidence of neoplasm. A postoperative MRI revealed collapse of the cyst and normalization of the size of both lateral ventricles. She has been free from intermittent headaches for 8 years after the surgery.

A CSP is a very rare condition defined as a fluid-containing structure between lateral ventricles with lateral bowing walls having a width of at least 10 mm.[1] The differential diagnosis of CSPs includes other cystic lesions such as arachnoid cysts and cystic tumors. CSPs can be classified as communicating and non-communicating cysts and those communicating with the cerebral ventricular system are the common type and asymptomatic. Although non-communicating cysts are also generally asymptomatic, expanding CSPs occasionally could cause clinical symptoms such as headache, syncope, emesis, papilledema, behavioral and mental disturbances because of direct compression of the expanding cyst on the surrounding structures, and/or increased intracranial pressure due to stenosis or intermittent obstruction of foramina of Monro.[2,3] Because there are no radiographic criteria for determining surgical indications in patients with expanding CSPs, the development of neurological symptoms is strongly associated with the decision for surgical treatment.[2] Surgical treatments for symptomatic CSPs include open surgical procedures, ventriculoperitoneal shunting, and stereotactic or endoscopic fenestration. Endoscopic fenestration from the CSP

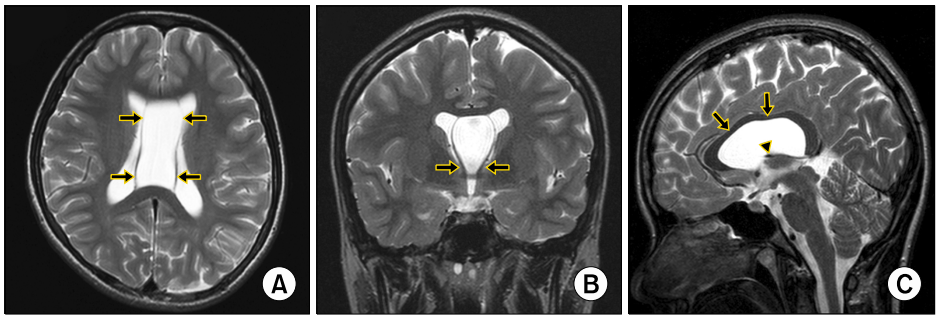

FIG. 1. (A) Axial T2-weighted magnetic resonance (MR) image showed an expanding cyst of the septum pellucidum (CSP) with lateral bowing walls (arrows) and moderate dilation of the lateral ventricles. (B) Coronal T2-weighted MR image showed obstruction of both foramina of Monro (arrows) due to compression by the expanding CSP. (C) Sagittal T2-weighted MR image showed compression and thinning of the body of corpus callosum (arrows) and caudal displacement of the fornix (arrowhead).

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Article History:
Received May 28, 2022
Revised June 19, 2022
Accepted June 21, 2022

https://doi.org/10.4068/cmj.2022.58.3.129

to lateral ventricles is strongly considered a safe, fast, and effective procedure for the treatment of symptomatic CSPs.[3,4] The endoscopic fenestration or pellucidotomy can immediately resolve the clinical symptoms and provide satisfactory results during long-term follow-up.[5] Clinicians should keep in mind that careful history taking and neurological examination are necessary to determine whether the expanding CSP is symptomatic or asymptomatic.

CONFLICT OF INTEREST STATEMENT

None declared.

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