

Cystoventricular shunting

Schieferdecker et al. described the first case of a [glioependymal cyst](#) of the [brainstem](#) managed by [robot-assisted](#), [stereotactic](#), [cystoventricular shunting](#). Glioependymal cysts are rare congenital cystic lesions that are thought to form by displacement of ependymal cells during the embryonal period. Glioependymal cysts have been reported in a variety of different locations within the central nervous system. However, glioependymal cysts of the brainstem have only been described once before. They reported the case of a 53-year-old man who was referred due to [hemiparesis](#), [hemihypesthesia](#), and [hemidysesthesia](#), as well as facial and [abducens nerve palsy](#). A large pontine glioependymal cyst was confirmed via magnetic resonance imaging (MRI) scans. The cyst was subsequently decompressed by connecting the cyst with the [fourth ventricle](#) via robot-assisted stereotactic [shunt placement](#). In the postoperative course, the patient made a quick recovery and did not report any permanent neurologic deficits ¹⁾.

Ten patients with intracranial arachnoid cysts were treated with direct shunting of the cyst to a lateral ventricle. The strategic goal of cystoventricular shunting is to establish physiologically normal intracranial pressure relationships, rather than cyst obliteration. Cystoventricular shunts were successful in treating single and multiple intracranial cysts in supratentorial and infratentorial locations and in patients with normal and enlarged lateral ventricles. Cystoventricular shunting is conceptually simple as well as effective and reliable ²⁾.

¹⁾

Schieferdecker S, Hunsche S, El Majdoub F, Maarouf M. Robot-Assisted Stereotactic Shunting as a Novel Treatment for [Pontine Glioependymal Cysts](#). J Neurol Surg A Cent Eur Neurosurg. 2021 May 24. doi: 10.1055/s-0041-1726109. Epub ahead of print. PMID: 34030189.

²⁾

McBride LA, Winston KR, Freeman JE. Cystoventricular shunting of intracranial arachnoid cysts. Pediatr Neurosurg. 2003 Dec;39(6):323-9. doi: 10.1159/000075261. PMID: 14734867.

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