

# Subdural hematoma after lumboperitoneal shunt

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Subdural hematoma can be a serious [lumboperitoneal shunt complication](#).

Physicians should be aware of this potentially devastating complication of shunt placement <sup>1)</sup>.

Castillo et al. alert about the need to take into account [subarachnoid hemorrhage](#) and [venous sinus thrombosis](#) as possible complications in the followup of these patients <sup>2)</sup>.

A 67-year-old man suffered from persistent headache worsening with postural change 2 months after LP shunt reconstruction for [iNPH](#). [Head computed tomography](#) showed [bilateral chronic subdural hematomas](#) (CSDH). Lumbar images including [shuntography](#) and [magnetic resonance imaging](#) showed the tip of the [lumbar catheter](#) was spontaneously pulled out close to the [dura mater](#) with expansion of the [epidural space](#) due to [Cerebrospinal fluid leakage](#) from a shunt side hole of the lumbar catheter to the epidural space. Shunt removal and subsequent irrigation of CSDH improved his headache. [CSF leakage](#) in this case differs from those in previous reports, because early and enormous CSF leakage into the epidural space can be explained only by a different mechanism through a side hole just located in the epidural space in this case. We must pay attention to the possibility of this rare cause of IH due to CSF leakage in patients suffering from postural headache after LP shunt placement <sup>3)</sup>.

## Mild traumatic brain injury

Patients with lumboperitoneal shunts, especially those not capable of independent daily activities, are at risk for [acute subdural hematoma](#) after even [mild traumatic brain injury](#) <sup>4)</sup>.

Aoki et al. report four patients treated with a [lumboperitoneal shunt](#) in whom acute subdural hematoma occurred after minor head trauma. Three of the four patients had subdural fluid collection or widening of subarachnoid space observed on computed tomography scan after placement of the lumboperitoneal shunt, and discuss its mechanism <sup>5)</sup>.

1)

Barash IA, Medak AJ. Bilateral subdural hematomas after lumboperitoneal shunt placement. J Emerg Med. 2013 Aug;45(2):178-81. doi: 10.1016/j.jemermed.2013.01.030. Epub 2013 Apr 30. PubMed PMID: 23643242.

2)

Castillo L, Bermejo PE, Zabala JA. [Unusual complications of the lumboperitoneal shunt as treatment of benign intracranial hypertension]. Neurologia. 2008 Apr;23(3):192-6. Spanish. PubMed PMID: 18370342.

3)

Matsubara T, Ishikawa E, Hirata K, Matsuda M, Akutsu H, Masumoto T, Zaboronok A, Matsumura A. A new mechanism of cerebrospinal fluid leakage after lumboperitoneal shunt: a theory of shunt side hole-case report. Neurol Med Chir (Tokyo). 2014;54(7):572-7. Epub 2013 Dec 5. PubMed PMID: 24305015; PubMed Central PMCID: PMC4533463.

4)

Kamiryo T, Hamada J, Fuwa I, Ushio Y. Acute subdural hematoma after lumboperitoneal shunt placement in patients with normal pressure hydrocephalus. Neurol Med Chir (Tokyo). 2003 Apr;43(4):197-200. PubMed PMID: 12760499.

5)

Aoki N, Mizutani H. Acute subdural hematoma due to minor head trauma in patients with a lumboperitoneal shunt. Surg Neurol. 1988 Jan;29(1):22-6. PubMed PMID: 3336835.

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