Cerebrospinal fluid overdrainage after lumboperitoneal shunt placement for the patients with idiopathic normal pressure hydrocephalus (iNPH) is mainly caused by insufficient management of pressure settings of the shunt valve and/or siphon effect of shunt systems induced by the patient's postural changes. [1) 2)]. Some cases of IH due to CSF leakage with other mechanisms have been reported [3)]) [4)].

Headache is commonly attributed to intracranial hypotension (IH) due to shunt overdrainage [5)].

In a retrospective survey on the usefulness of Dural sac shrinkage sign for the early detection of iatrogenic intracranial hypotension caused by lumboperitoneal shunt overdrainage for patients with idiopathic normal pressure hydrocephalus (INPH).

Forty-five INPH patients had an LPS using a pressure programmable valve equipped with an anti-siphon device.

Nine patients complained of orthostatic headache after the LPS, indicating IH due to overdrainage, which persisted for more than a week in three patients and 2-7days in six patients. The headache was transient/ nonorthostatic in ten patients and absent in 26 patients. The DSSSs and accompanying enlargement of the venous plexus were observed in all three patients with prolonged orthostatic headaches. Only the anterior shift of the dura mater was observed in 1 (4%) among 25 patients who had short-term orthostatic headache, transient/ nonorthostatic headache, or absent headache, and underwent spinal MRI. A patient with prolonged severe orthostatic headache with both DSSSs eventually developed intracranial subdural effusion and underwent tandem valve surgery, which provided a quick improvement of symptoms. The DSSSs on thoracic MRI also disappeared promptly.

DSSSs may serve as objective signs for the diagnosis of IH due to overdrainage through an LPS for INPH [6)].

Likhterman et al. describe a case of paradoxical lumboperitoneal overdrain of cerebrospinal fluid (CSF) with severe CSF hypotension syndrome in horizontal position of the patient and immediate cessation in vertical position. Ligation and then removal of lumboperitoneal shunt lead to rapid and stable disappearance of overdrain syndrome as well as concurrent left-side radicular pain syndrome in the leg [7)].

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