

Spontaneous intracranial hypotension (SIH) – MRI can be a savior

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Background - The most common cause of spontaneous intracranial hypotension headache is a cerebrospinal fluid (CSF) leakage, but the underlying mechanisms remain unknown.

Case - A 31-year-old woman presented with continuous severe bifrontal orthostatic headache, which increased within seconds on sitting up and resolved within seconds on lying down. Her headache used to also worsen during the Valsalva manoeuvre. Her current headache was associated with nausea and dizziness since last 15 days. Patient had no other cochlear–vestibular signs like tinnitus, ear fullness, distortion of sounds or hypoacusia, except for the associated dizziness.

MRI brain was suggestive of pachymeningeal thickening and enhancement along the cerebral convexities. MRI brain also showed dural venous engorgement seen as bulky cavernous sinuses and mildly dilated dural venous sinuses.

MRI of lumbosacral spine revealed a CSF sleeve in epidural space from L3 (lumbar) to S2 (sacral) vertebral level with resultant flattening of anterior dura representing the site of leak. These findings were suggestive of SIH due to CSF leak.

In view of failure of medical treatment, a CT-guided EBP was done at L4–5 with fibrin glue injected at the site of leak. Patient tolerated the procedure well and she started responding to treatment.

Conclusion -

- The three most diagnostic imaging feature of SIH are enhancement of the pachymeningitis, downward displacement of brain (brain is sagging) and subdural collections.
- Autologous epidural blood patch may be administered intrathecally, which leads to sealing of the site of leakage with a formed clot.

