

INTRATHECAL NORMAL SALINE CONTINUAL INFUSION IN THE TREATMENT OF REFRACTORY SPONTANEOUS INTRACRANIAL HYPOTENSION: A CASE REPORT

*L-Han Hsiao*¹, Der-Yang Cho¹, Hung-Lin Lin¹

¹Department of Neurosurgery, China Medical University Hospital

OBJECTIVE : Spontaneous intracranial hypotension (SIH) is a poorly understood entity that can present with a wide variety of symptoms and signs ranging from headache to coma. It is caused by spontaneous spinal cerebrospinal fluid (CSF) leaks and is known for causing orthostatic headaches. However, appropriate management of obtundation caused by spontaneous intracranial hypotension is not well defined.

CLINICAL PRESENTATION: A 50-year-old man presented with orthostatic headache followed by rapid decline in mental status. Image findings were consistent with the diagnosis of spontaneous intracranial hypotension with bilateral subdural hematomas, with abnormal fluid collection in the posterior epidural space from the T2 level down to the T12 level. Myelography of whole spine revealed focal abnormal contrast collection in the right lateral aspect of dural sac at the level of T6-T8, suspect multiple high-flow CSF leakage.

INTERVENTION: Despite treatments with bilateral burr hole drainage and ICP monitor insertion twice, and lumbar epidural blood patch three times, worsening stupor necessitated intubation and mechanical ventilation. To restore intraspinal and intracranial pressures, intrathecal saline bolus (30ML) was initiated. After that, his verbal function was improved immediately and then several hours of lumbar saline continual infusion (Keep 10ML/HR) was performed for two days, the patient's stupor resolved gradually. Arrange Myelographic computer tomography of whole spine revealed focal abnormal contrast collection in the right lateral aspect of dural sac at the level of T6-T8. Multiple high-flow CSF leakage was impressed. After his symptoms was improved and clear consciousness, epidural blood patch injection was performed again and located at T8 level. The patient was discharged in excellent condition.

CONCLUSION: Spontaneous intracranial hypotension may cause a decline of

mental status and require lumbar intrathecal saline infusion to arrest or reverse impending central (transtentorial) herniation. This case demonstrates appropriately bolus and continual infusion of normal saline and document resolution of intracranial hypotension. This maneuvers maybe change the CSF flow pattern and aimed at sealing the cerebrospinal fluid fistula or checking valve .

Topic:

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Corresponding author : **Hung-Lin Lin**

Address : 台中市北區育德路 2 號神經外科部

Contact phone : 04-22052121#5034

E-mail Address : coolfishing2002@gmail.com