

CONTINUOUS INTRATHECAL SALINE INFUSION FOR REFRACTORY SPONTANEOUS INTRACRANIAL HYPOTENSION: A CASE REPORT

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OBJECTIVE : Spontaneous intracranial hypotension (SIH) is a poorly understood entity that can present with a wide variety of symptoms and signs ranging from mild headache to coma. It is usually caused by continuous spontaneous spinal cerebrospinal fluid (CSF) leaks, causing orthostatic headaches. However, appropriate management of obtundation caused by SIH 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 SIH with bilateral cerebral subdural hematomas, and abnormal fluid collection in the posterior epidural space from the T2 level down to the T12 level. CT myelography of whole spine suspected multiple high-flow CSF leakage over T6 to T8 level.

INTERVENTION: Despite treatments with bilateral burr hole drainage for subdural hemoatomas, and repeated lumbar epidural blood patch for three times, worsening stupor developed. To restore CSF depletion, intrathecal saline bolus (50ML) was initiated. After that, his verbal function was improved immediately and then continuous intrathecal saline infusion (Keep 10 ml/hour) was performed for two days, the patient's stupor resolved gradually. After his symptoms being improved and clear consciousness, epidural blood patch injection was repeated again at T8 level. The patient was completely recovered.

CONCLUSION: Spontaneous intracranial hypotension may cause a refractory decline of mental status and lumbar intrathecal saline infusion may help to arrest or reverse impending central (transtentorial) herniation. This case demonstrates

appropriately bolus and continual infusion of normal saline and document resolution of SIH. This maneuvers maybe change the CSF flow pattern and aimed at sealing the cerebrospinal fluid fistula.

Topic:

- Spine Vascular Trauma Neurointensive Care Infection
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