Chronic subdural hematoma recurrence case reports

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Mewada et al. report a case with right hemiparesis and aphasia 1 month after a fall from a bicycle. Computed tomography scan of the head showed left chronic subdural hematoma, which was evacuated by burr-hole drainage. The postoperative course was complicated by reaccumulation within short period of time. On superselective digital subtraction angiography of MMA, iatrogenic dAVF was found on left side. We embolized successfully it using n-butyl cyanoacrylate after a third irrigation. No reaccumulation found in the postoperative period or at last follow-up. They proposed a treatment protocol based on the own experience and literature review.

Refractory chronic subdural hematoma with reaccumulation within a short interval should be subjected to digital subtraction angiography of the MMA. Embolization of ipsilateral MMA is safe, effective, and a useful option for the treatment of iatrogenic dAVF and resolution of hematoma [1].

An 85-year-old male presented with left CSDH, which recurred five times. The hematoma was irrigated and drained through a left frontal burr hole during the first to third surgery and through a left parietal burr hole during the fourth and fifth surgery. The hematoma had no septation and was well-evacuated during each surgery. Antiplatelet therapy for preventing ischemic heart disease was stopped after the second surgery, the hematoma cavity was irrigated with artificial cerebrospinal fluid at the third surgery, and the direction of the drainage tube was changed to reduce the postoperative subdural air collection at the fourth surgery. However, none of these interventions was effective. He was successfully treated by fibrin glue injection into the hematoma cavity after the fifth surgery.

This procedure may be effective for refractory CSDH in elderly patients [2].

A 67-year-old man with dural arteriovenous fistula (AVF) presenting as a non-traumatic chronic subdural hematoma (CSDH). This previously healthy patient was hospitalized due to progressive headache with subacute onset. He underwent burr-hole surgery twice for evacuating the left CSDH that was thickest at the posterior temporal area. The operative procedure and finding was not extraordinary, but subdural hematoma slowly progressed for days following the revision surgery. After investigation by super-selective external carotid angiography, a dural AVF found near the transverse-sigmoid sinus was diagnosed. Dural AVF was completely occluded with trans-arterial injecting polyvinyl alchol particles into the petrosquamosal branch of the middle meningeal artery. The patient showed a good neurological outcome with no additional intervention. Brain surgeons have to consider the possibility of dural AVF and perform cerebral angiogram if necessary when they manage the cases that have a spontaneously occurred and repeatedly recurring CSDH [3].

2007

Spontaneous intracranial hypotension (SIH) is reported to cause chronic subdural hematoma (SDH), however diagnosis of SIH in patients with SDH is not always easy.

Takahashi et al. report a case of chronic SDH refractory to repeated drainage, which was attributed to SIH. A forty-five-year-old man who had been suffering from orthostatic headache for one month was admitted to our hospital presenting with unconsciousness and hemiparesis. CT on admission revealed a chronic subdural hematoma, which was successfully treated once with subdural drainage. However, the patient fell into unconscious again with recurrence of the hematoma within several days. After two more sessions of drainage, SIH due to cerebrospinal fluid leakage was diagnosed with spinal magnetic resonance imaging (MRI) and radionuclide cisternography. Spinal MRI demonstrated abnormal fluid accumulation in the thoracic epidural space, and the radionuclide cisternogram showed early excretion of tracer into urine as well as absence of intracranial tracer filling. After treatment with epidural blood patching, the hematoma rapidly disappeared and he was discharged without symptoms. In the treatment of chronic SDH, especially in young to middle aged patient without preceding trauma or hematological disorders, physicians should pay attention to underlying SIH to avoid multiple surgery. MRI of the spine as well as radionuclide cisternography is useful in evaluation of this condition [4)].

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4)
Takahashi T, Senbokuya N, Horikoshi T, Sato E, Nukui H, Kinouchi H. [Refractory chronic subdural hematoma due to spontaneous intracranial hypotension]. No Shinkei Geka. 2007 Aug;35(8):799-806. Japanese. PubMed PMID: 17695779.