Chronic subdural hematoma case reports

see also Bilateral chronic subdural hematoma case reports.

2024

report a case of chronic subdural hematoma complicated by cerebral vasospasm after burr hole evacuation. A 74-year-old woman underwent burr hole evacuation of a chronic subdural hematoma. She developed left hemiparesis and disturbance of consciousness on postoperative day 3. Magnetic resonance imaging showed a right parietal infarct and decreased cerebral blood flow signal in the right middle cerebral artery territory. Digital subtraction angiography showed multiple segmental narrowings of the right middle cerebral artery. Her neurological symptoms recovered with conservative treatment. Follow-up angiography showed improvement in the arterial narrowing, which finally led to a diagnosis of cerebral vasospasm. Cerebral vasospasm can occur after burr hole evacuation of chronic subdural hematoma. Magnetic resonance angiography is useful for determining the cause of postoperative neurological worsening in chronic subdural hematoma patients [1)]

A 70-year-old male who developed Parkinsonism following chronic subdural hematoma post-head trauma. This case underscores the rare association between chronic subdural hematoma and Parkinsonian symptoms, emphasizing the importance of timely diagnosis and intervention in managing such cases [2)].

2023

Three cases of chronic subdural hematoma after head trauma and compared the diameter of the middle meningeal artery in MRA images before and after chronic subdural hematoma to discuss new understanding of CSDH [3)].

A case of persistent facial nerve palsy after middle meningeal artery (MMA) embolization for chronic subdural hematoma (cSDH).

Methods: A literature search was conducted for publications within the last 10 years of facial nerve palsy following cerebral circulation embolization procedures.

Results: With inconsistencies between previously believed pathophysiology and clinical features, other mechanisms causing cSDH such as angiogenesis and capillary formation have been proposed. MMA embolization has evolved as a therapeutic approach to reduce recurrence of subdural hematoma; however, postoperative neural complications such as cranial nerve palsies are poorly described in the literature.

Conclusions: cSDH is increasingly more common and is on trajectory to become the most prevalent cranial neurosurgical condition. MMA embolization is described as a safe and minimally invasive

procedure; however, as a relatively new procedure further research is needed to elucidate associated complications [4].

2022

A woman in her 30s presented for evaluation of a symptomatic left-sided acoustic neuroma and was found to have an incidental chronic subdural haematoma (SDH) over the left frontoparietal convexity without trauma or precipitating event. The SDH expanded on serial imaging and the patient eventually underwent left-sided frontoparietal craniotomy for haematoma evacuation. Haematological evaluation was benign, but angiography revealed absence of the anterior half of the SSS. We report the first case of spontaneous SDH in the setting of hypoplastic rostral SSS [5].

The first known case of a Streptococcus intermedius epidural abscess that resulted following MMA embolization for a left-sided CSDH that required evacuation and washout through a craniotomy. Intracranial infections can be a potentially devastating complication from MMA embolization in this patient population [6].

Two cases of cSDH that has previously undergone embolization of MMA, after which cSDHs have been operated through minicraniotomy due to complications after artery embolization. Microstructural changes of hematoma's capsule are described and discussed.

Histological changes in embolized capsule suggest embolization of MMA as a valuable method for treatment of cSDHs [7].

A 69-year-old male presented to a chiropractor with a 10-day history of acute on chronic low back pain, which radiated into his lower extremities bilaterally, involving weakness and difficulty walking, and a ground-level fall onto his elbows 16 days prior. He had visited his primary care provider, orthopedist, and traditional Chinese medicine practitioner, received oral analgesics and three ketorolac injections, and had lumbar radiographs, followed by acupuncture, cupping, and spinal manipulation without lasting relief. Considering the patient's concerning presentation, the chiropractor ordered lumbar magnetic resonance imaging (MRI) on the first visit, revealing findings suggestive of late subacute lumbar SDH, and recommended urgent brain MRI and neurosurgical referral. The patient went to an orthopedic surgeon at a nearby hospital, becoming disoriented upon presentation, prompting admission. Brain MRI confirmed bilateral chronic intracranial SDH, prompting emergency hematoma evacuation via burr hole craniostomy. The patient's gait rapidly improved, and the pain subsided over the following two weeks. This case highlights an older male identified as having spinal SDH by a chiropractor, leading to referral and surgery for concurrent life-threatening intracranial SDH. Clinicians should be aware that spinal SDH may stem from asymptomatic intracranial SDH and should be suspicious of SDH in older individuals after a fall, signs of which warrant emergency referral for MRI and surgical evaluation [8].

A 54-year-old male patient, following severe traumatic brain injury, underwent a right hemispheric decompressive craniectomy associated to acute subdural hematoma evacuation and, subsequently, a PEEK cranioplasty implant with polytetrafluoroethylene (PTFE or Gore-Tex) duroplasty. About 10 years later, he experienced worsening headache with sensory alterations; therefore, he underwent a brain computed tomography scan documenting a right hemispheric chronic subdural hematoma (cSDH), expanding in subsequent radiological examinations. Because of symptoms' worsening, he underwent cSDH evacuation through a burr hole centered on the parietal region of the PEEK prosthesis, associated with mini-reopening of duroplasty. Two years after the procedure, he went to the emergency department because of the appearance of a serum-purulent material drained from the surgical site. He underwent cranioplasty removal and then started a targeted therapy to treat a triple surgical site infection, often unpredictable and totally accidental.

Conclusion: Based on the literature evidence, performing a burr hole on a cranial prosthesis in bone-like material such as PEEK represents a surgical procedure never performed before and in our opinion could, in selected cases, guarantee the cSDH evacuation and the treatment of intracranial hypertension, avoiding the cranioplasty removal, although there is a risk of even late surgical site infection [9].

2020

Two patients presented with altered mental status secondary to acute-on-chronic subdural hematomas and underwent emergent craniotomies. The first, a 78-year-old man, had poor subdural drain output and deteriorated with seizures and evidence of new acute subdural hematoma formation. Recombinant tissue plasminogen activator was injected through the subdural catheter on postoperative day 3. The second patient, a 64-year-old male, received recombinant tissue plasminogen activator postoperatively. Subsequently, both experienced good subdural drainage, clinical and radiologic improvement, and successful discharge to a skilled nursing facility.

Subdural thrombolytic therapy can improve hematoma evacuation. A potential implication of this is the facilitation of minimally invasive options such as twist-drill craniotomy, previously deferred due to inadequate evacuation. However, there is a paucity of evidence and more research is needed to substantiate the safety and efficacy, refine this technique, and guide patient selection [10].

2019

Tran et al. presented the first use of an irrigating external ventricular drain in the United States in the perioperative management of a patient with cSDH treated with craniotomy (IRRAS, Stockholm, Sweden).

An 82-year-old male presented with right-sided weakness, confusion, and right-sided neglect with expressive aphasia. He was found to have a large 2.5-cm cSDH with a 9-mm left-to-right midline shift. The patient was treated with a mini craniotomy to evacuate the hematoma and placement of an irrigating drain in the subdural space. The patient was discharged home on a postoperative day 3 without complication. He was at neurologic baseline 2 weeks later on follow-up.

The use of an irrigating drain for perioperative management of cSDH is a novel means to prevent recurrence and warrants further exploration [11].

A male patient (77 years old) was admitted to the hospital on the 2nd day of fever after undergoing a “trepanation and drainage of chronic subdural hematoma” operation at a local hospital. After admission, the patient was treated with an emergency operation in which a subdural abscess was diagnosed and then administered antibiotics after the operation.

According to the clinical manifestations, intraoperative findings of imaging examination and the results of pus culture, the diagnosis was subdural empyema.

They surgically removed the subdural empyema. Postoperative antibiotics were administered according to the results of bacterial culture.

At 3 months after the operation, the patient returned to the hospital for reexamination and was found to have achieved a good recovery and good self-care.

Subdural empyema after trepanation and drainage of chronic subdural hematoma is a very rare and severe disease. Early diagnosis and operative intervention, as well as the intravenous administration of antibiotics, can improve the prognosis of patients and enhance their quality of life [12].

Otani et al. described a case of giant cell arteritis (GCA) simultaneously diagnosed with chronic subdural hematoma. In this case, head to chest computed tomography angiography was useful for the diagnosis and treatment of GCA [13].

A 59-year-old man presented with epileptic seizures interpreted as episodic syncope in the past 3 years and the patient had a history of head trauma about 4 years ago. Computed tomography revealed an ossified chronic subdural hematoma involving the right frontotemporoparietal region, which was totally resected using microsurgical technique. Postoperatively, weakness developed in the right arm and magnetic resonance imaging revealed a bilateral tension pneumocephalus, which was immediately treated by a left frontal burr hole trepanation, and the patient was discharged uneventfully [14]

2018

Weisberg and Houten from the Division of Neurosurgery, Maimonides Medical Center Brooklyn, NY and Department of Neurosurgery, Zucker School of Medicine at Hofstra/Northwell, presented an unusual case of a 79-year-old female with a chronic subdural hematoma overlying the cerebral convexity presenting only with isolated foot drop that resolved upon surgical drainage [15].

A 72-year-old man was admitted with a complaint of a drowsy mental status after a generalized tonic-clonic seizure. A brain computed tomography scan acquired at a local hospital revealed a large chronic subdural hematoma (CSDH) in the left frontoparietal lobe. The patient had not experienced head trauma and had been taking clopidogrel due to angina. A neurosurgeon at the local hospital performed single burr hole trephination in the left frontal bone and drained some of the hematoma. Brain magnetic resonance imaging performed upon transfer to our hospital showed a large OCSH with a midline shift to the right side, revealing a low, heterogeneous signal on T2-weighted images (WI) and an isodense signal on T1-WI. We performed craniotomy and membranectomy to achieve adequate decompression and expansion of the brain. Following this, the patient recovered completely. Our findings support that neurosurgeons should consider the possibility of organization of a CSDH when selecting a diagnosis and treatment plan [16].

2013

A case of bilateral chronic subdural hematoma (CSDH) in a 75-year-old man after exercise using a vibrating belt machine on the head. He suffered from headache and intermittent left side numbness for ten days. He denied any head injuries except eccentric exercise using a vibrating belt on his own head for 20 days. An MRI revealed bilateral CSDH. The hematoma was isodense on the CT scan. Park et al. made burr-holes on the both sides under local anesthesia and identified the neomembrane and dark red subdural fluid on both sides. In the postoperative CT scan, they found an arachnoid cyst on the left temporal pole. Although the arachnoid cyst itself is asymptomatic, trivial injury such as vibrating the head may cause a CSDH [17].

2011

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