Brainstem hemorrhage case reports

Holmes tremor secondary to brainstem hemorrhage [1].

A 65-year-old female with a history of hypertension, who presented with worsening headaches, right hemiplegia, and left oculomotor palsy, underwent endovascular treatment for a large basilar aneurysm. The aneurysm was treated with both hydrogel-coated coils and bare platinum coils. Hydrogel-coated coils represented 46% of the coil length in the aneurysm. The patient was discharged from the hospital with improvement of neurological deficits 6 days after the procedure. However, the patient was readmitted with perianeurysmal edema in the midbrain 23 days after coil embolization. Follow-up angiography 26 days after the procedure showed complete obliteration of the aneurysm. Two weeks later, the patient presented with a large brainstem hemorrhage and died. Pathological findings revealed intraparenchymal hemorrhage in the pons without rupture of the aneurysm.

Hydrogel-coated coils may cause a marked inflammatory response that may result in intracerebral hemorrhage [2].

Brainstem hemorrhage secondary to evacuation of chronic subdural hematoma [3].

Spinal epidural hematoma with myelitis and brainstem hemorrhage: an unusual complication of dengue fever [4].

A 55-year-old patient with ruptured anterior communicating artery aneurysm, who underwent an uneventful clipping of the aneurysm, and had a lumbar drainage intra-operatively to facilitate brain relaxation. In the postoperative period, he developed pontomesencephalic hemorrhage, and had a fatal outcome. The potential causative factors are discussed, and the relevant literature reviewed. This is probably the first reported case of this complication in the literature [5].

A 21-year-old man admitted to our hospital after a road traffic accident. The brain CT scan revealed a left hemispheric acute subdural hematoma. After DC, he developed a brainstem hemorrhage. Recovery was, however, good [6].

A 79-year-old woman suffered from left chemosis and diplopia. Cerebral angiography revealed a left cavernous dAVF with cortical venous drainage. The patient underwent TVE of the cavernous sinus (CS) via the left inferior petrosal sinus. Superior petrosal sinus (SPS) outflow occlusion was performed to avoid venous congestion, followed by superficial middle cerebral vein outflow occlusion, selective

shunt occlusion of the middle meningeal artery, and superior orbital vein outflow occlusion. The patient's condition suddenly deteriorated during CS packing. A CT scan revealed a massive brainstem hemorrhage. Cerebral angiography did not show SPS reopening or redistributed drainage to the posterior fossa. Thus, TVE for cavernous dAVF can result in life-threatening vascular complications. Well-planned treatment strategies could avert this rare complication [7)].

Brainstem hemorrhage after neural therapy for decreased libido in a 31-year-old woman [8)].

A 54-year-old, right-handed male suffered sudden onset of vertigo and vomiting. He was diagnosed with brainstem hemorrhage, and treatment was administered. After the vertigo improved, he showed disturbance of attention and anterograde amnesia. Magnetic resonance imaging revealed a hematoma across the pons on both sides, but no lesions were obvious in the cerebellum or the cerebrum. Single photon emission tomography showed decreased perfusion not only in the brainstem but also in the bilateral frontal and temporal lobes. Amnesia and executive dysfunction decreased in the 8 months following the stroke onset, with improvement in regional cerebral blood flow to the frontal and temporal lobes. These findings suggest that a hemorrhage in the pons caused diaschisis resulting in a secondary reduction of activity in the cerebral cortex and the occurrence of cortical symptoms [9)].

A case of a hemorrhage of the brainstem after craniotomy for resection of a huge arachnoid cyst of the sylvian fissure on the left hemisphere. The previous simptomatology included clinical signs of increased intracranial pressure, and the computerized tomography showed midline shift. Some factors may contribute to brain hemorrhage post-operatively: cerebral edema, ipsilateral changes in the venous reflux and blood perfusion, although the physiopathology remains obscure. A more careful approach is suggested in such cases with intracranial hypertension [10)].

Two patients made virtually complete recoveries following hemorrhage within the brainstem. Progressive clinical deterioration in each case was managed surgically by evacuation of the hemorrhagic lesion in 1 case and treatment of secondary hydrocephalus in both. Computerized tomographic scanning proved essential for nonsurgical diagnosis and later management [11)].

References

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