Primary tectal mesencephalic hemorrhage

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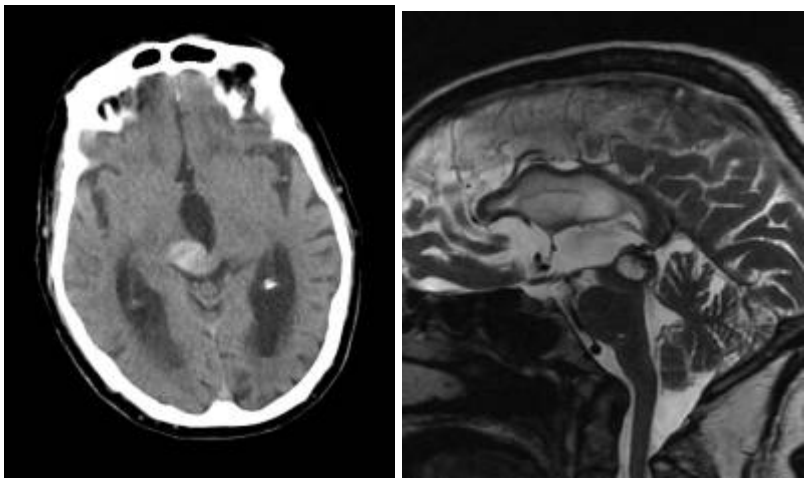
see also Midbrain hemorrhage.

Spontaneous mesencephalic hemorrhages are very unusual, specially those located in the tectum. Hypertension is a less important factor that in other classical locations. Other etiologies reported are arteriovenous malformations, coagulation disorder and trauma [1].



Case reports

Chen et al. reported a 40-year-old normotensive man suddenly developed diplopia, tinnitus and a burning sensation on the left side of his body while driving a motorcycle. He did not complain of headache, nausea or vomiting. Neurologic examination revealed left trochlear nerve palsy and impaired pinprick, temperature and joint position sensation of the left limbs. There was no ptosis or motor deficit. He had a mild bleeding diathesis due to alcoholic liver cirrhosis. Computerized tomography and magnetic resonance image of the brain disclosed hemorrhages in the right midbrain tectum and the left temporal lobe. After nine months of observation, there was nearly complete recovery of symptoms, except for mild residual diplopia. From a literature review, only nine case of midbrain tectal hemorrhage involving the inferior colliculus have been reported. These patients had a unique clinical presentation. Diplopia due to trochlear nerve palsy, either unilateral or bilateral, was present in all of the cases. Tinnitus and sensory disturbance contralateral to the lesion side were very common. Only three patients had risk factors for hemorrhage, including bleeding diathesis, hypertension and vascular anomalies. In the majority of patients, no underlying causes were detected. The outcome was favorable with conservative treatment [2].

Kaku et al. reported a Transcollicular approach for three hematomas who were completely removed, along with abnormal blood vessels in the wall of the hematoma cavity; all three of these patients experienced neurological improvement. [3].

Pego et al. reported 2 cases:

Case 1: a non-hypertensive 30 year-old man who suddenly presented headache, nausea, diplopia and left hemisensory deficit. Twenty-four hours later he lost consciousness but was again alert within five hours. Examination revealed upward and downward gaze palsy and limited convergence. The patient recovered completely within six weeks.

Case 2: a 38 year-old man without hypertension, who suddenly developed dizziness, occipital headache, nausea and diplopia. On examination, there was impaired upward and downward gaze, limitation of convergence and right arm hyposthesia. After eight weeks examination showed a mild limitation of upward voluntary gaze. CT and MR imaging studies revealed a small quadrigeminal hemorrhage in both cases [4].

Primary tectal mesencephalic hemorrhage with isolated trochlear nerve palsy [5].

References

[1], [4]
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[3]
Kaku Y, Yonekawa Y, Taub E. Transcollicular approach to intrinsic tectal lesions. Neurosurgery. 1999 Feb;44(2):338-43; discussion 343-4. doi: 10.1097/00006123-199902000-00052. PMID: 9932887.

[5]
Kamei T, Uchiyama F, Fukuyama J. Primary tectal mesencephalic hemorrhage with isolated trochlear nerve palsy. A case report]. Rinsho Shinkeigaku. 1987 Sep;27(9):1167-9. Japanese. PMID: 3440362.