

Anterior temporal artery aneurysm

Case reports

A 65-year-old woman presented a rare dissecting aneurysm of the anterior temporal artery (ATA) manifesting as headache. Computed tomography and magnetic resonance imaging revealed a mixed-density mass in the horizontal segment of the middle cerebral artery. Emergent angiography demonstrated aneurysmal dilatation and a thrombosed mass in the sylvian fissure. Infectious aneurysm was excluded. She underwent emergent surgery to reduce the risk of repeated infarction and hemorrhage. The distal side of the ATA manifested occlusive changes suggestive of arterial dissection. The proximal side of the ATA was ligated and the lesion was excised. Histological examination confirmed that the aneurysmal dilatation was attributable to arterial dissection due to disruption of the internal elastic lamina. Distal dissecting aneurysms may occur in the absence of infectious disease. We recommend that ruptured distal dissecting aneurysms be treated surgically in the acute stage immediately after detection ¹⁾

1986

Asakura et al. report a case of unruptured anterior temporal artery aneurysm showing [pupil sparing](#) oculomotor palsy. The patient was a 55-year-old male with the complaints of left blepharoptosis and diplopia. He had a history of tuberculous meningitis 9 years previously, and since then he suffered from paraparesis of lower extremities and bladder and bowel disturbance. Neurological examination on admission revealed left blepharoptosis and disturbance of medial and vertical movement of the left eye ball, but the pupils were isocoric with normal light reaction. Carotid angiography demonstrated that the left internal carotid artery was tortuous toward the medial side in the C2 portion, and the saccular aneurysm was present in the anterior temporal artery 3 mm distal from the middle cerebral artery. At operation it was revealed that the aneurysm which had a diameter of 17 mm located in the proximal portion of the anterior temporal artery, and compressed the dorsal aspect of the oculomotor nerve. A month after operation the left oculomotor palsy disappeared. There had been no report of the case of unruptured middle cerebral artery aneurysm causing oculomotor palsy. Pupil-sparing oculomotor palsy is characteristic of diabetic oculomotor palsy, and rare cases showing pupil-sparing oculomotor palsy are caused almost by aneurysms of the internal carotid-posterior communicating artery junction. Anatomical study revealed that the parasympathetic fibers which go to the pupil constrictor muscle were in the dorsomedial aspect of the oculomotor nerve in the subarachnoid portion ²⁾.

¹⁾

Umeoka K, Shirokane K, Mizunari T, Kobayashi S, Teramoto A. Dissecting aneurysm of the anterior temporal artery: case report. *Neurol Med Chir (Tokyo)*. 2011;51(11):777-80. PubMed PMID: 22123481.

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Asakura K, Tasaki T, Okada K. [A case of unruptured anterior temporal artery aneurysm showing pupil-sparing oculomotor palsy]. *No Shinkei Geka*. 1986 May;14(6):777-82. Japanese. PubMed PMID: 3748286.

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