A unique association: trigeminal and stapedial arteries in a patient harboring a meningioma

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A 63-year-old woman performed a magnetic resonance imaging because of persistent headache, which demonstrated a left parietal convexity tumor. A digital subtraction angiography was performed in order to plan the preoperative embolization. It showed the persistence of primitive trigeminal artery associated with the persistence of stapedial artery\(^1\,2\).

The stapedial artery, arising from the cervical internal carotid artery, established anastomosis with the ophthalmic artery and originated the middle meningeal artery, which was responsible for the tumor supply (Figure). There is no previous report of this association in literature. The pathological findings confirmed the diagnosis of meningioma.

**Figure.** Digital subtraction angiography and 3D reconstructions. (A) middle meningeal artery lacking in external carotid angiography. (B) persistent stapedial artery origin (arrow). (C) hypervascular blush (arrowheads). (D) trigeminal artery (arrow) and ophthalmic-stapedial anastomosis (curved arrow). (E) trigeminal artery (arrow). (F) removal of supraclinoid carotid and basilar arteries: trigeminal artery (asterisks), ophthalmic-middle meningeal (small arrows) connection (curved arrow).

**References**