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Image Report

Extremely tortuous superior cerebellar artery mimicking an aneurysm

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ABSTRACT

Background: An extremely tortuous superior cerebellar artery is a rare anomaly. We report a case of an extremely tortuous superior cerebellar artery mimicking an aneurysm.

Case Description: A 77-year-old woman was initially diagnosed with unruptured cerebral aneurysm at the right basilar artery-superior cerebellar artery junction by magnetic resonance angiography. Catheter angiogram revealed that there was no apparent aneurysm at the basilar artery-superior cerebellar artery junction and the lesion was actually an extremely tortuous superior cerebellar artery.

Conclusion: Although an extremely tortuous superior cerebellar artery is rare, it should be considered when examining other vascular lesions.

Keywords: Anatomical anomaly, Cerebral aneurysm, Segmental dysgenesis, Superior cerebellar artery, Vascular malformations

CASE REPORT

A 77-year-old woman was initially diagnosed with unruptured cerebral aneurysms by magnetic resonance angiography. She had a family history of subarachnoid hemorrhage. The aneurysms were located at the right middle cerebral artery (MCA) and the right basilar artery-superior cerebellar artery (BA-SCA) junction. Sixteen years later, routine magnetic resonance angiography examination showed no apparent change in the BA-SCA lesion [Figure 1]. By contrast, the size of the MCA aneurysm had increased and the patient was admitted for further examination. Catheter angiography was performed. Angiogram indicated two MCA aneurysms with bleb formation. Thus, we scheduled neck clipping of the MCA aneurysms. However, there was no apparent aneurysm at the BA-SCA junction and the lesion was actually an extremely tortuous SCA at the anterior pontine segment [Figure 2]. The tortuous SCA formed a mass of arterial loops with a coil-like appearance [Figure 2].

DISCUSSION

An extremely tortuous SCA is a rare anomaly. Anatomical variations of the SCA have been described in the past literature, including duplication, triplication, early bifurcation,

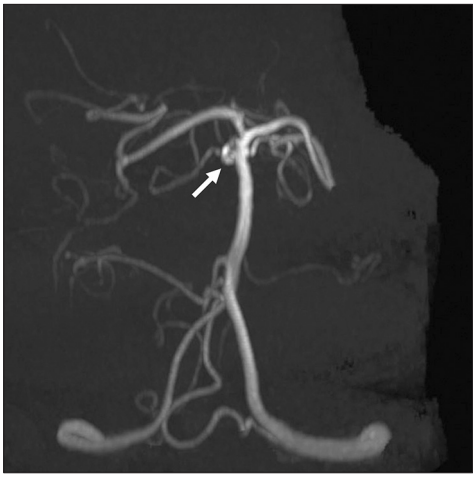

Figure 1: Magnetic resonance angiography showing a lesion with the appearance of a cerebral aneurysm at the right basilar artery-superior cerebellar artery junction (arrow).

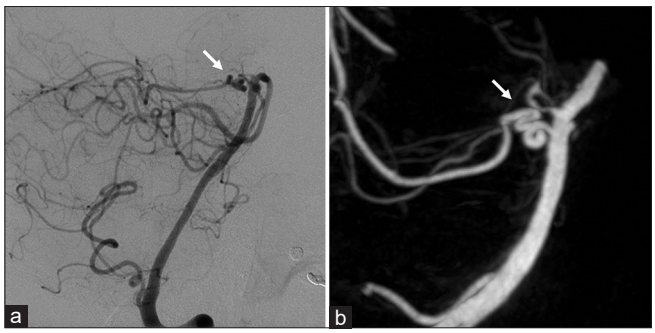

Figure 2: Selective left vertebral angiogram (oblique view) showing that the lesion is not an aneurysm, but rather involves an extremely tortuous right superior cerebellar artery at the anterior pontine segment (arrow). (a) Two-dimensional view. (b) Three-dimensional view.

fenestration, aplasia, originating from the posterior cerebral artery, and originating as a common trunk with the posterior cerebral artery.[2,3,5] However, the extremely tortuous SCA could not be identified in the past studies using magnetic resonance angiography,[5] computed tomography angiography,[2] and cadaveric brains.[3] To the best of our knowledge, there are only a few reports of this anomaly.[1,4] Uchino *et al*. reported a case of an extremely tortuous SCA mimicking an arteriovenous malformation.[4] Brinjikji *et al*. reported this anomaly as a pure arterial malformations.[1] Vascular anomaly can be encountered due to various primitive vascular networks and its developmental changes over the prenatal period. Because the extremely tortuous SCA was stable for 16 years in our case, it may also represent congenital segmental dysgenesis, likely occurring during embryogenesis.[4] Although this anomaly is rare, it should be considered when examining other vascular lesions.

CONCLUSION

Here, we report a 77-year-old woman with an extremely tortuous SCA mimicking an aneurysm. Although this anomaly is rare, it should be considered when examining other vascular lesions.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

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