Pathological entities such as schwannomas and meningiomas can appear on imaging studies as contrast-enhancing masses in the cerebellopontine angle (CPA) cistern. Focally enhancing pathological entities of vascular origin in the CPA include ectatic vessels; aneurysms, especially those of the anterior inferior cerebellar artery; and “high-riding” jugular bulbs with dehiscent overlying bone. Draining veins of arteriovenous malformations or arteriovenous fistulae can also demonstrate contrast enhancement. We present a case of superior petrosal vein varicosity that presented as an enhancing CPA lesion. This appearance of a normal variant has not been reported previously.

This 56-year-old woman with the complaint of recurrent left-sided tinnitus underwent magnetic resonance imaging, which revealed an enhancing lesion at the level of the left internal acoustic meatus (Fig. 1). The differential diagnosis included an eighth-nerve schwannoma, meningioma, aneurysm, or vascular malformation. The patient underwent four-vessel cerebral angiography, which revealed only an isolated segmental ectasia of the superior petrosal vein with no other associated vascular anomalies (Fig. 2).

To our knowledge, there have been no previous reports of superior petrosal vein ectasia presenting as an enhancing lesion of the CPA. This entity should be considered to be an extremely rare cause of enhancement in the CPA cistern. When indicated, cerebral angiography will help establish the diagnosis and avoid unnecessary exploratory surgery or stereotactic radiotherapy.

References