# Persistent primitive trigeminal artery variants

Saltzman type 1 variant: the p-comms are hypoplastic and the PPTA provides significant blood supply to the distributions of the distal BA, PCA and the SCAs (the basilar artery is often hypoplastic).

Saltzman type 2: p-comm supplies PCA.

Saltzman type 3: PPTA joins the SCA (instead of the BA).

---

Fenestration of the cavernous segment of the internal carotid artery (ICA) is an extremely rare variant with unknown clinical significance. We present two cases of this variant, both of which were associated with a persistent primitive trigeminal artery (PPTA). Large dual channels of the ICA were seen extending from the part immediately distal to the origin of the PPTA to the C3 segment of the ICA. We speculate that coexistence of the two vascular anomalies might be due to failed regression or a remnant of the primitive arterial network during the same early gestation period in which development of the PTA takes place (3-5 mm crown-rump length stage) [1].

1)
Chihara H, Kiyosue H, Tanoue S, Ide S, Ogura T, Agawa Y, Hatano T. Fenestration of the cavernous internal carotid artery associated with a persistent primitive trigeminal artery. Interv Neuroradiol. 2021 Apr 20:15910199211012261. doi: 10.1177/15910199211012261. Epub ahead of print. PMID: 33878980.