

Internal Carotid Artery Agenesis

see [Aberrant internal carotid artery](#).

see also [Internal Carotid Artery Dysgenesis](#).

The finding of absent ICA flow void on routine MRI and absence of bony carotid canal on routine CT should suggest the diagnosis. It is important to identify the transsellar intercavernous anastomosis on imaging to avoid devastating complications during transsphenoidal pituitary surgery.

Two cases of this anomalous artery with an abnormal sella turcica due to the intrasellar course were reported by Kishore et al. ¹⁾.

A 25-year-old female with 2-month history of holocranial headache. Neurological examination was unremarkable. Magnetic resonance imaging (MRI) with magnetic resonance angiography (MRA) showed absence of left ICA with an abnormal intercavernous vessel in the sella. Computed tomography (CT) showed absence of the left carotid canal. Doppler ultrasonography (USG) showed high resistance flow in the left common carotid artery (CCA). Since no hemorrhage or aneurysm was seen, patient was managed conservatively and is on regular follow-up. Based on our knowledge, this is the first case to demonstrate the features of unilateral agenesis of ICA with intercavernous anastomosis in X-ray, Doppler USG, CT, and MRI scans of the brain ²⁾.

¹⁾
Kishore PR, Kaufman AB, Melichar FA. Intrasellar carotid anastomosis simulating pituitary microadenoma. Radiology. 1979 Aug;132(2):381-3. PubMed PMID: 461796.

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Kumaresh A, Vasanthraj PK, Chandrasekharan A. Unilateral agenesis of internal carotid artery with intercavernous anastomosis: a rare case report. J Clin Imaging Sci. 2015 Jan 30;5:7. doi: 10.4103/2156-7514.150453. eCollection 2015. PubMed PMID: 25806142; PubMed Central PMCID: PMC4322372.

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