

Paraclinoid region

The nomenclature of the paraclinoid [region](#) is confusing and lacks standardization,

The region surrounding the [anterior clinoid process](#) was observed in 70 specimens from 35 formalin-fixed cadaveric heads. Detailed microanatomic dissections were performed in 10 specimens. Histological sections of this region were obtained from the formalin-fixed cadaveric specimens.

The clinoid segment of the [internal carotid artery](#) (ICA) is the portion that abuts the [clinoid process](#). This portion of the ICA can be directly observed only after removal of the clinoid process. The dura of the cavernous sinus roof separates to enclose the clinoid process. The clinoid segment of the ICA exists only where this separation of dural layers is present. Because the clinoid process does not completely enclose the ICA in most cases, the clinoid segment is shaped more like a wedge than a cylinder. The outer layer of the dura (dura propria) is a thick membrane that fuses with the adventitia of the ICA to form a competent ring that separates the intradural ICA from the extradural ICA. The thin inner membranous layer of the dura loosely surrounds the ICA throughout the entire length of its clinoid segment. The most proximal aspect of this membrane defines the proximal dural ring. The proximal ring is incompetent and admits a variable number of veins from the cavernous plexus that accompany the ICA throughout its clinoid segment.

The narrow space between the inner dural layer and the clinoid ICA is continuous with the cavernous sinus via an incompetent proximal dural ring. This space between the clinoid ICA and the inner dural layer contains a variable number of veins that directly communicate with the cavernous plexus. Given the inconstancy of the venous plexus surrounding the clinoid ICA, we think that categorical labeling of the clinoid ICA as intracavernous or extracavernous cannot be justified ¹⁾.

Paraclinoid internal carotid artery aneurysm

[Paraclinoid internal carotid artery aneurysm](#).

¹⁾

Kim JM, Romano A, Sanan A, van Loveren HR, Keller JT. Microsurgical anatomic features and nomenclature of the paraclinoid region. *Neurosurgery*. 2000 Mar;46(3):670-80; discussion 680-2. PubMed PMID: 10719864.

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