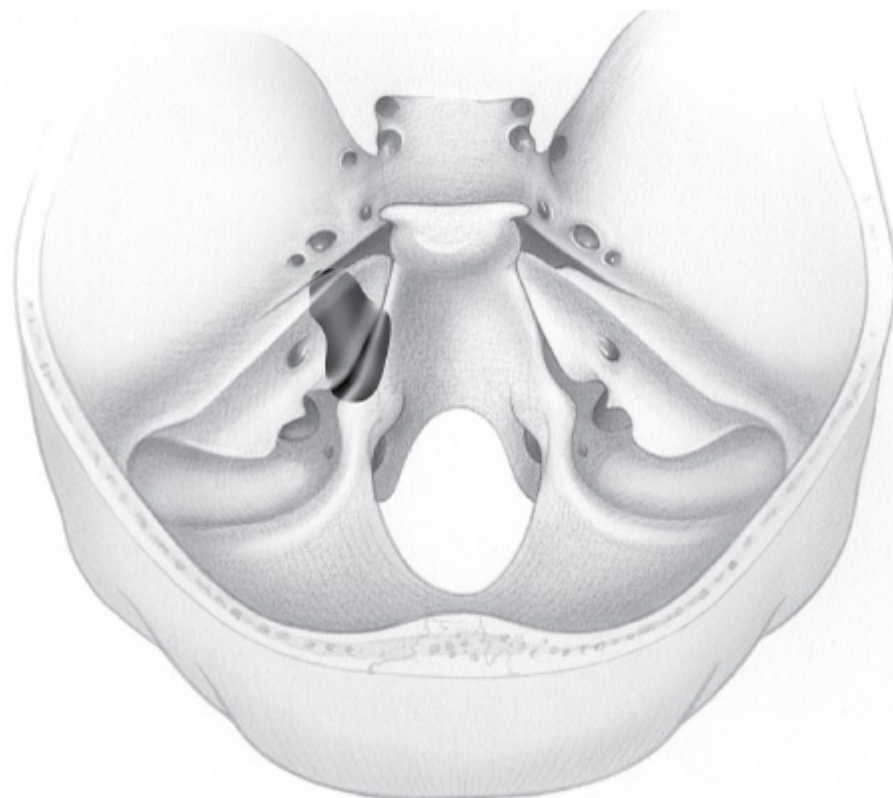


Petroclival junction



Source: Lalwani AK: *Current Diagnosis & Treatment in Otolaryngology—Head & Neck Surgery*, 2nd Edition: <http://www.accessmedicine.com>
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The petroclival junction (PCJ) is a challenging [skull base](#) location from neurosurgical point of view, especially if the retrocarotid space has to be reached.

A combined [petrosal approach](#) is a suitable technique for the resection of medium-to-large [petroclival meningiomas](#) (PCMs), and suited for patients with serviceable hearing on the side of the lesion.

This approach enhances petroclival exposure and the degree of tumor resection, especially in the area of the [petroclival junction](#), middle clivus, apical [petrous bone](#), posterior [cavernous sinus](#), and [Meckel's cave](#). The combined petrosal approach also allows better visualization of the contralateral side and the ventral [brainstem](#), which facilitates safe dissection of the tumor from the brainstem, the basilar artery, and the perforators. If a patient has an early draining bridging vein to the tentorial sinus (before it reaches the transverse-sigmoid junction) or a prominent [sigmoid sinus](#) and [jugular bulb](#), the combined petrosal approach provides significant working space ¹⁾.

Simal-Julián et al. present the technique step by step, introducing a critical concept about the optimization of the petroclival drilling, generating the [carotid clival window](#) (CCW). The CCW is delimited by the paraclival segment of the [internal carotid artery](#) ICA anterolaterally, the [petrous bone](#) posterolaterally, the clival dura medially, the synchondrosis inferiorly, and the cavernous sinus superiorly; therefore, this approach exposes an important nuance to augment the previous approaches for PCJ and retrocarotid space.

This technique provides a good surgical window and carries minimal risk ²⁾.

¹⁾

Cho CW, Al-Mefty O. Combined petrosal approach to petroclival meningiomas. *Neurosurgery*. 2002 Sep;51(3):708-16; discussion 716-8. PubMed PMID: 12188949.

²⁾

Simal-Julián JA, Miranda-Lloret P, Botella-Asunción C, Kassam A. Full endoscopic endonasal expanded approach to the petroclival region: optimizing the carotid-clival window. *Acta Neurochir (Wien)*. 2014 Aug;156(8):1627-9. doi: 10.1007/s00701-014-2125-6. Epub 2014 May 23. Erratum in: *Acta Neurochir (Wien)*. 2014 Oct;156(10):1927. Kassam, Armin [corrected to Kassam, Amin]. PubMed PMID: 24855022.

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