

There are anatomical **landmarks** within the sphenoid sinus that are used for orientation directing to the **sella floor** or the **cavernous sinus**. Yet, little data can be found on the consistency of these landmarks.

Image analysis of the anatomical landmarks included the minimal **Intercarotid Artery Distance** (ICD), diameter of the sphenoid sinus (DSS), direction of the septum sinuum sphenoidalium (SSS), and the distance between vomer and clivus (VCD). The overall mean ICD was 16.2 mm, with patients suffering from adenomas showing a mean ICD of 15.8 mm compared with an average 16.5 mm in the control group. DSS was equal for both groups (adenoma group: mean 31.5 mm; controls: mean 31.3 mm). Mean VCD was 27.9 mm in patients with pituitary neuroendocrine tumors compared with 26.7 mm in controls. A septum of the sphenoid sinus located in the midline was found in overall 23 % only. SSS was directed into the bony shield of the internal carotid artery in 28 % of underlying tumors and in 37 % of the control group. This is the first detailed description of landmarks of the sphenoid sinus based on a large radiologic-anatomical analysis of CT scans yielding a wide variation and high inconsistency of these landmarks. From our data, we suggest that the surgeon approaching the sphenoid sinus should handle the anatomical landmarks with care bearing their inconsistency in mind. A thorough planning of the procedure up front is highly recommended. Usage of a navigation system considering the bony structures might as well facilitate as steady the approach to the sellar region in some cases for the patient's sake <sup>1)</sup>.

<sup>1)</sup>

Ahmadipour Y, Lemonas E, Maslehaty H, Goericke S, Stuck BA, El Hindy N, Sure U, Mueller O. Critical analysis of anatomical landmarks within the sphenoid sinus for transsphenoidal surgery. Eur Arch Otorhinolaryngol. 2016 Apr 21. [Epub ahead of print] PubMed PMID: 27101471.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

[https://neurosurgerywiki.com/wiki/doku.php?id=intercarotid\\_artery\\_distance](https://neurosurgerywiki.com/wiki/doku.php?id=intercarotid_artery_distance)

Last update: **2024/06/07 02:51**

