

McConnell's capsular artery

The McConnell's capsular arteries (MCCA) were first described in 1953. They consist of medial branches of the cavernous internal carotid artery (ICA) and are divided in anterior and inferior capsular arteries. OBJECTIVE:

To highlight the anatomy of the MCCA and its importance in the surgical treatment of [tuberculum sellae](#) and planum sphenoidale tumors through an endoscopic endonasal approach. METHODS:

Ten cadaveric specimens fixed in formalin and perfused with colored silicone were dissected. Standard endoscopic endonasal transsphenoidal approach to the sellar region was performed. The MCCA were identified and still images were captured for further analysis. We report 1 case to illustrate the importance of the MCCA. RESULTS:

The anterior capsular artery, which originates from the anteromedial aspect of the anterior loop of the cavernous ICA and reaches the suprasellar space, was present in 70% of the specimens with no difference between the right and left sides. The anterior capsular artery plays an important role in the vascularization of tuberculum sellae meningiomas. The inferior capsular artery originates from the inferomedial aspect of the cavernous ICA, at its horizontal portion, and reaches the floor and anterior wall of the sella where it anastomoses to branches of the inferior hypophyseal artery. CONCLUSION:

The MCCA are key structures when performing an endoscopic endonasal approach for tumors of the sellar and suprasellar regions ¹⁾.

¹⁾

Ferreze Nunes C, Beer-Furlan A, Doglietto F, Carrau RL, Prevedello DM. The McConnell's Capsular Arteries and Their Relevance in Endoscopic Endonasal Approach to the Sellar Region. Oper Neurosurg (Hagerstown). 2017 Oct 13. doi: 10.1093/ons/oxx107. [Epub ahead of print] PubMed PMID: 29040718.

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