

**MICROSURGICAL ANATOMY OF THE CAVERNOUS SINUS AND ITS RELATION WITH NEURORADIOLOGICAL STUDIES**

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The development and understanding of the Cavernous Sinus (CS) anatomy that began with Parkinson, Dolenc, Taptas, Umansky, and Harris and Rhoton emphasizes the necessity of a deep knowledge of the complex microanatomy of this region before approaching lesions here. **OBJECTIVE:** The purpose of this article is to present the result of our CS dissections in its correspondence in neuroradiology. **METHODS:** Eighteen CS of 6 cadaveric heads and 3 skull base fixed in formalin were dissected using 3X to 40X magnification of the surgical microscope. The heads and skull bases were injected with colored silicone. Each cadaveric head was placed in a Sugita head-holder and extended slightly to simulate the surgical position. Ten MRI and angiography studies were performed and the landmarks of the microsurgical anatomy were identified in the neuroradiological theater. **RESULTS:** The anatomical relationships between the neural and vascular structures are demonstrated, as well as the view of the CS walls proportioned by different surgical approaches. The current neuroradiological tools are very precise to show this anatomy. **CONCLUSIONS:** The CS anatomy is complex and when the decision of treatment is surgical the approaches to this area must be based in relation to the site of entry of the nerves, its walls and the kind of pathology what affect it principally when the triangles are distorted by a huge mass. Each pathological process has its intrinsic peculiarities that must be considered before or during the surgery. This kind of anatomical study using different approaches allows variable views of the same area, giving us a three-dimensional view. The neuroradiological armamentarium offers to surgeons a precise knowledge necessary to approach this area.