MICROSURGICAL ANATOMY OF THE CAVERNOUS SINUS AND ITS RELATION WITH NEURORADIOLOGICAL STUDIES
GUSTAVO RASSIER ISOLAN; MARCELO MARTINS DOS REIS; LEONARDO VEDOLIN; NILO MARIO MONTEIRO LOPES; DEBORA
BERTHOLD; JULIANO PEREZ CHAVES; MATEUS FELIPE LASTA BECK

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.