

THE IMPORTANCE OF THE ARCUATE EMINENCE IN THE MIDDLE FOSSA APPROACH

GUSTAVO RASSIER ISOLAN; MARCELO MARTINS DOS REIS; LEONARDO VEDOLIN; JULIANO PEREZ CHAVES; MATEUS FELIPE LASTA BECK

The arcuate eminence (AE) is the classical landmark of the internal acoustic meatus in the middle fossa approach. However, its anatomical landmark does not always correspond to the superior semicircular canal (SSCC). In fact, some authors\ ' advocate that the AE is not a prominence related to the SSCC but more associated with a bulge equivalent of the eminence corresponding to the posterior part of the sulcus separating the temporal gyri. OBJECTIVE: Our purpose is to show the percentage where the AE corresponds to the SSCC and the importance of this landmark to find the internal acoustic meatus. METHODS: twenty middle fossa (ten cadaveric heads) were dissected through a middle fossa *peeling*. Followed by the drilling on the AE, internal acoustic meatus and the geniculate ganglion. 30 temporal CT scans were analyzed and the relationship between AE and SSCC was studied RESULTS: In four specimens no AE was identified. In nine cases the AE corresponded exactly to the SSCC and in the remaining six cases there was no correlation. In all cases, however, the angular relationship between the SSCC and the internal acoustic meatus was constantly between 45° and 60°. The several methods to identify the internal acoustic meatus are presented and discussed; and the advantages and disadvantages of each one. In the CT group. CONCLUSION: in order to drill out the internal auditory canal safely, surgeons should apply other methods to localize the internal acoustic meatus. The AE is not a reliable surgical landmark to localize the SSCC. For a surgical purpose, based on our findings, preoperative CT with coronal cuts is paramount. This knowledge is specially important to performed anterior petrosectomy.