Safe Entry Zones To The Pontine Portion Of The Brainstem
Anatomic And Surgical Relationship

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Objective: To describe the safe entry zones to the pontine portion of the brainstem through its anterior, antero-lateral and dorsal face.

Material And Methods: Anatomic and Surgical studies; Brainstem dissections were made on 14 anatomic specimen; 9 of them using Kingler’s technique, and 5 of them have not been frozen. 23 cadaveric specimen were dissected under microsurgical technique (previously injected heads) in order to describe the surgical corridors to the zone.

Results: Bone and neurovascular structures were identified in each step of the different approaches that were used to reach the anterior, antero-ventral and dorsal portion of the pontine zone. Surgical hints and safe entry zones are exposed, and each one of them is described in detail.

Outcome: To know the brainstem anatomy and its safe entry zones thoroughly, allows us to choose the best approaches for each lesion in the pontine region, in order to reach it in a precise and safe way, and to interprete the changes produced in the normal anatomy due to the intrinsic lesions in the pons. In this way we can reduce death rate.

Key Words: Approaches to the brainstem, Safe Entry Zones, Pontine zone, Brainstem cavernous malformations