

Morphological aspect of the superior wall of the cavernous sinus

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The lateral wall of cavernous sinus (CS) is made of two distinct layers of dura: meningeal dura (the external one) and endosteal dura (internal one). On the other hand, some debates about the histomorphological aspects of the superior and medial wall of CS are present in literature (1-2). In this study we aimed to demonstrate the histomorphological features of the superior wall of CS during cadaver dissection studies. We considered only the sellar area, bounded anteriorly by the posterior margin of planum sphenoidale, antero-inferiorly by the antero-superior surface of sphenoid sinus, inferiorly by the superior surface of sphenoid sinus, posteriorly by dorsum sellae, laterally by the interclinoid ligament (preserving the medial wall of CS) and superiorly by diaphragma sellae. The samples were collected, decalcified, paraffin embedded and serial sections were finally processed for standard histomorphological staining. Sections of each sample were analyzed using optical light microscope equipped with a digital camera. Our results showed that the two layers separated themselves at the superior wall of CS: the meningeal layer continued as diaphragma sellae and the endosteal layer continued downward between the venous compartment and pituitary capsule. In addition, between these two layers it was possible to define an interdural pathway. These data should be considered in the evaluation of the rare, though possible, extension of pituitary adenomas in the interdural space, rather than into the cavernous sinus.

References

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Keywords

Cavernous sinus; dura mater; interdural space; endosteal dura; pituitary gland.