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Abstract

Ancient Egyptians were pioneers in many fields, including medicine and surgery. Our modern knowledge of anatomy, pathology, and surgical techniques stems from discoveries and observations made by Egyptian physicians and embalmers. In the realm of neurosurgery, ancient Egyptians were the first to elucidate cerebral and cranial anatomy, the first to describe evidence for the role of the spinal cord in the transmission of information from the brain to the extremities, and the first to invent surgical techniques such as trepanning and stitching. In addition, the transnasal approach to skull base and intracranial structures was first devised by Egyptian embalmers to excerebrate the cranial vault during mummification. In this historical vignette, the authors examine paleoradiological and other evidence from ancient Egyptian skulls and mummies of all periods, from the Old Kingdom to Greco-Roman Egypt, to shed light on the development of transnasal surgery in this ancient civilization. The authors confirm earlier observations concerning the laterality of this technique, suggesting that ancient Egyptian excerebration techniques penetrated the skull base mostly on the left side. They also suggest that the original technique used to access the skull base in ancient Egypt was a transethmoidal one, which later evolved to follow a transsphenoidal route similar to the one used today to gain access to pituitary lesions.



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The medicine of the ancient Egyptians is some of the oldest documented. From the beginning of the Persian invasion of 525 BC, Egyptian medical practice went largely unchanged but was highly advanced, including setting of bones, dentistry, and an extensive set of pharmacopoeia. Egyptian medical thought was not unique; people of ancient Egypt, Rome or Greece might have been pioneers in many fields, including surgery. Oral health was basic to say the least. And this approach to dental health continued right through the Enlightenment that real, expert dentists started to emerge. But even then, treatments were often painful, therefore, makes for some pretty tough reading. Going to the dentist could be bloody, gory, and painful. In this vignette, the authors examine paleoradiological and other evidence from ancient Egyptian skulls to shed light on Greco-Roman Egypt, to shed light on the development of transnasal surgery in this ancient world. Concerning the laterality of this technique, suggesting that ancient Egyptian excerebration techniques were lateral. They also suggest that the original technique used to access the skull base in ancient Egypt...

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