

1. Record Nr.	UNINA9910915676403321
Autore	Aziz Sofia
Titolo	The Human Brain in Ancient Egypt : A Medical and Historical Re-Evaluation of Its Function and Importance
Pubbl/distr/stampa	Oxford : , : Archaeopress, , 2023 ©2023
ISBN	9781803274782
Edizione	[1st ed.]
Descrizione fisica	1 online resource (86 pages)
Collana	Archaeopress Egyptology Series ; ; v.45
Disciplina	610.932
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Title Page -- Copyright Information -- Contents -- List of Figures -- Figure 1.1. Pawiamen (IMP00105) is a male aged 22-44 dating to the Late Period. He has been mummified with resin applied to the back of the head, but the skull is intact with no attempt at excerebration. His desiccated brain, and meninges are visible post -- Figure. 2.1. Naturally preserved brain (Smith, 1902) -- Figure 2.2. Results of Study by Loynes, 2015: Total 53, TNC 39, TFC 4, Transbasal 1, TNC with Orbital 1, Orbital 1, Intact Brain 6. -- Figure 3.1. Redpath Mummy RM2720, is a female, aged 18-24. An axial view of her thorax shows desiccated lungs, but the heart has been extracted. -- Figure 3.2. Mummification bed discovered in tomb KV63, now housed in the Mummification Museum, Luxor. The stage of mummification in which this bed was used is unknown, but its design would have enabled bandaging of the mummy (Image © Aziz, 2022). -- Figure 3.3. Canopic jars with sons of Horus heads: Hapi with a baboon head and Duamutef with a jackal head, Mummification Museum, Luxor (Image © Aziz, 2022). -- Figure 3.4. Canopic jars with heads of sons of Horus: Qebehsenuf with a falcon head and Imseti with a human head, Mummification Museum, Luxor (Image © Aziz, 2022). -- Figure 3.5. A wall scene in the New Kingdom Period tomb of Queen Nefertari, (QV66). Top centre, facing right, the falcon headed God Horus sits with his four sons: Duamutef, Qebesenuf, Hapi and Imseti (Image © Aziz, 2023). -- Figure 3.6. IMP00101 Mummy of a man, age 44-55, Third Intermediate

Period. Axial view showing loose viscera and resin, but the heart is absent. -- Figure 3.7. Red Path Mummy (RM2718), male, age 20-25, Ptolemaic Period. Arrow pointing to mediastinum and heart.

Figure 3.8. Headrest amulet less than 1 inch in length dating to the Late Period (Image © Met Museum, Public Domain). In this study Peftjauneith (Mummy IMP00109), dating to the Late Period was found to have a headrest amulet placed behind the neck (See Fi -- Figure 3.9. IMP00109 Peftjauneith, male, aged 22-44. Arrow pointing to headrest amulet. Peftjauneith has been excerebrated through a transnasal route by breaking through the ethmoid bone. Some remnants of brain tissue are visible in the resin that has been -- Figure 3.10. Head/brain djed pillar amulet on frontal bone and winged scarab on the parietal region of a mummified female, aged 20-35, dating to circa 20 BCE to AD 10. Directly beneath the winged scarab, CT scans revealed, a thin sheet of metal with engra -- Figure 3.11. Osiris: God of the dead and resurrection, with the head of a djed pillar, Tomb of Queen Nefertari QV66, Valley of the Queens (Image © Aziz, 2022). -- Figure 3.13. IMP00099, Tadis or Ta(net)kharu, female, age 40-52, Third Intermediate Period. Arrows showing complete excerebration and transnasal route. -- Figure 3.14. IMP00103, Hor, male, age 22-44, Late Period, partial excerebration with some remnants of brain tissue. Route of excerebration is TNC through disruption of the ethmoid bone. -- Figure 3.15. IMP00096, Khonsuemma'a (Kherut), male, age 30-44, Third Intermediate Period, TNC through disruption of ethmoid bone followed with insertion of linen in cranial vault. -- Figure 3.16. IMP00109, Peftjauneith, male, age 22-44, Late Period, following excerebration resin has been poured into the cranial cavity. Although excerebration has been carried out meninges are visible in the resin as is some linen.

Figure 3.17. IMP00109, Peftjauneith, male, age 22-44, Late Period, PET colour option used to show large opening of ethmoid to carry out excerebration and introduce resin into the cranial cavity. Meninges are visible in the resin as is some linen. -- Figure 3.18. IMP00113, Hor, male (21-22), Ptolemaic, arrow pointing to nasal tampon. Arrows showing resin has been poured twice in the cranial cavity. There is some debris trapped in the resin -- Figure 3.19. IMP00083, Braided Lady, female, age 25-29, New Kingdom Period, shrunken intact desiccated brain is visible posteriorly. -- Figure 3.20. IMP000083, Braided Lady, coronal view, arrow showing intact desiccated shrunken brain. -- Figure 3.21. IMP00104, Harerem, male, age 45-55, arrow showing eye plate. Excerebrated TNC route. Arrow showing remnants of meninges. -- Figure 3.22. In the sample of 33 mummified individuals 55% had undergone TNC, 6% TFC, 36% had an intact brain and in 3% the route of excerebration could not be determined. -- Figure 3.23. IMP00009, Hetep Bastet, age 40+. Complete excerebration TFC route with some debris posteriorly. -- Figure 3.24. Skull packed with linen and resin, Mummification Museum, Luxor (Image © Aziz, 2022). This study found 2 examples of mummies with linen and resin in the cranium. One dating to the TIP and one to the Late Period. -- Figure 3.25. IMP00111, Mummy of a Man, age 22-40, TIP, linen pack and packages containing viscera and resin with loose debris on the posterior wall of the abdomen. The heart is notably absent. -- Figure 3.26. IMP00097, female, age 40-52, TIP, mixture of resin and granular material in body cavity. -- Figure 3.27. IMP00100 Petament, male, age 55-74, axial view showing canopic package and returned loose viscera lying within resin packing. No convincing evidence of heart retention. Figure 3.28. IMP00105 Pawiamen, male, age 22-44, granular material in thoracic cavity. -- Figure 3.29. IMP00109 Peftjauneith, male, age 22-

44, heavy use of resin, canopic package and residual tissue is visible.  
 -- Figure 4.1. Schematic representation of the circle of Willis, arteries of the brain and brain stem (Rhcastilhos, 2007). -- Figure 4.2. Angiogram of arterial supply (Image © Ofir Glazer, 2006). -- Figure 5.1: Skull injuries of soldiers from Tomb MMA 507, Deir el Bahri (Winlock, 1945) -- Acknowledgements -- Abbreviations -- Chronology -- Chapter 1 -- Introduction -- 1.1 Research aims and purpose -- 1.2 Ethical considerations -- 1.3 Chapter outline -- Chapter 2 -- Literature review -- 2.1 Part one: mummification -- Classical writings -- Twentieth century writings -- Twenty first century writings -- 2.2 Part two: medicine -- Classical writers -- Twentieth century scholars -- Twenty First Century Scholars -- Literature review -- 2.3 Conclusion -- Chapter 3 -- A re-evaluation of mummification and treatment of the brain -- 3.1 Introduction -- 3.2 Evisceration -- 3.3 Identification of the four sons of Horus with the protection of specific internal organs -- 3.4 The heart -- 3.5 Treatment of the brain -- 3.5.1 The brain after death -- 3.5.2 Ancient sources -- 3.5.3 Packing material -- 3.5.4 Head/brain amulets -- 3.6 A radiological survey of the treatment of the brain in 33 Ancient Egyptian anthropogenic mummies -- 3.6.1 Method -- 3.6.2 Results -- 3.7 Findings -- Chapter 4 -- Trauma care and neurosurgery in Ancient Egypt -- 4.1 Healthcare: Sources of evidence -- 4.2 Neuroanatomy in Ancient Egypt -- 4.3 Papyrus Edwin Smith -- 4.3.1 Introduction -- 4.3.2 Case 1: Scalp laceration penetrating to the bone -- 4.3.3 Case 3: Penetrating head injury with skull perforation -- 4.3.4 Case 4: Compound, displaced, elevated skull fracture. 4.3.5 Case 5: Open, comminuted, depressed skull fracture -- 4.3.6 Case 6: Open comminuted, depressed skull fracture and dura laceration -- 4.3.7 Case 7: Frontal cutting wound with compound skull fracture penetrating the frontal air sinus. Uncomplicated and infected: tetanus -- 4.3.8 Case 8: Closed head injuries with comminuted skull fracture -- 4.3.9 Case 13: Closed comminuted nasal fracture with basilar skull fracture and cerebral contusion -- 4.3.10 Case 17: Cranio-facial injury with comminuted maxillary zygomatic fractures and basilar skull fractures -- 4.3.11 Case 20: Temporo-zygomatic stab wound with skull perforation and basilar skull fracture -- 4.3.12 Case 31: Cervical vertebral dislocation with spinal cord and head injuries -- 4.3.13 Case 33: Cervical burst fracture with spinal cord injury and brain contusion -- 4.4 Conclusion -- Chapter 5 -- Palaeopathological evidence of cranial surgery -- 5.1 Introduction -- 5.2 Trepanning -- 5.3 Skull surgery -- 5.4 Conclusion -- Chapter 6 -- Conclusion -- 6.1 Purpose and research questions -- 6.2 Chapter outline -- 6.3 Future research -- 6.4 Final thoughts -- Appendix A -- Appendix B -- Book of the Dead: Spell 30b (Faulkner, 2010) -- Appendix C -- Book of the Dead: Spell 166: Spell for a headrest (Faulkner, 2010) -- Appendix D -- Bibliography.

## Sommario/riassunto

This volume provides a medical and historical re-evaluation of the function and importance of the human brain in ancient Egypt. The study evaluates whether treatment of the brain during anthropogenic mummification was linked to medical concepts of the brain.