DOI: *http://dx.doi.org/10.18502/cjn.v23i1.???*

Current Journal of Neurology

Letter to Editor

Curr J Neurol 2024; 23(1): ?-?

The first mention of the word "brain" in texts related to the Iranian continental plateau

Received: 07 Sep. 2023
Accepted: 10 Nov. 2023

Abdorreza Naser Moghadasi

Multiple Sclerosis Research Center, Neuroscience Institute, Tehran University of Medical Sciences, Tehran, Iran

Keywords
Brain; Iran; Continental; First; Avesta; Yasht

The first reference to the word "brain" dates back to 1700 BC. In papyri found in ancient Egypt, the word "brain" appears eight times. In this papyrus, the history and symptoms of two patients that suffered from brain damage and trauma are discussed.[1]

We know that the inhabitants of the Iranian continental plateau were familiar with the brain. The presence of the skull of a 13-year-old girl with hydrocephalus who had undergone skull surgery found in the burnt city from 4800 years ago[2] indicates these inhabitants' acquaintance with the brain. Other findings such as the first artificial eye, the world's first animation, or a ruler found in the burnt city indicate the possibility that this civilization was also familiar with the brain function.[3] Nonetheless, there is no evidence that the word "brain" is directly mentioned. There are a few unreadable tablets left from the tribes living on the continental plateau. There is no mention of the word "brain" in the Elamite tablets, more of which have been found and read. Moreover, there is nothing about brain or its function in the Achaemenid inscriptions. Of course, exploration in this field must continue, because many of these tablets and inscriptions have not been read yet. Determining when the first reference to the word "brain" was made in the Iranian continental plateau can be of great significance in terms of the history of medicine and neuroscience. Mihr Yašt is one of the Yašts considered part of the Avesta. According to Christensen's research,[4] this Yašt should belong to the beginning of the Achaemenid dynasty, about 2500 years ago. This long Yašt comprises 146 stanzas in total that praise the god Mihr and names various organs of the body; however, the point of our attention is the reference to the word "brain" in the 72nd stanza: "He cuts to pieces everything at once, mingling together on the ground the bones, the hair, the brains, and the blood of men false to the contract".[5]

How to cite this article: Naser Moghadasi A. The first mention of the word "brain" in texts related to the Iranian continental plateau. Curr J Neurol 2024; 23(1): ???-?.

Corresponding Author: Abdorreza Naser Moghadasi
Email: abdorrezamoghadasi@gmail.com
Published by Tehran University of Medical Sciences

In praise of Mihr and his victories, this paragraph states that Varharam Izad, created in the form of a boar with sharp, iron claws, moved in front of Mihr, cut the treaty-breaking enemy into pieces, and dropped all his organs, including his brain, on the ground. This is the first reference to the word "brain" in texts related to the Iranian continental plateau. The Avestan word used for "brain" is "*mastarəynasča*",[5] which is a cognate with the word "*mazga*" in the Avestan language. The word "brain" that is used today is derived from the same Avestan word "*mazga*", which is derived itself from the Indo-European word "*moz-g-o-*", meaning knot.[6]

This suggests that this word has an Indo-European origin and was used much earlier than it was used in Mihr Yašt.[7] As stated, the word "brain" is derived from the word "*moz-g-o-*", which means knot. The analogy between the brain and a node reminds us of another important point: when a rope is tied, one part will be straight, and another will be raised, i.e., a knot. The combination of knot and rope reminds us of the combination of brain and spinal cord (Figure 1). Thus, the spinal cord is like a rope that is tied at the top and forms the brain. This analogy clearly shows why the word "brain" is derived from a word which mainly means knot.

As mentioned, much more research in this field is needed, and perhaps further findings will ascribe the reference to the brain and nervous system in the continental plateau to an older time.

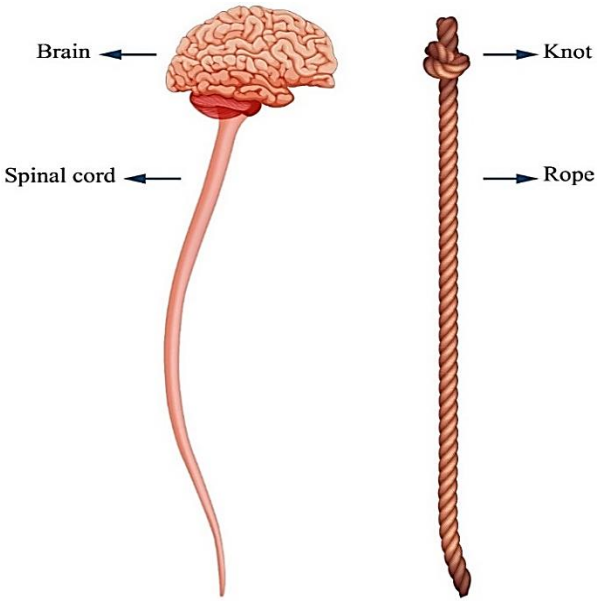

Figure 1. Similarities between the combination of knot and rope and the combination of brain and spinal cord

Conflict of Interests

The authors declare no conflict of interest in this study.

Acknowledgments

I would like to thank my dear friend Dr. Mohammad Bayani for his valuable comments.

References

1. Minagar A, Ragheb J, Kelley RE. The Edwin Smith surgical papyrus: Description and analysis of the earliest case of aphasia. J Med Biogr 2003; 11(2): 114-7.
2. Naser MA. First Skull Surgery in Iran: The Burned City and a 4800-Year-Old Skull. Iran J Public Health 2014; 43(2): 249-51.
3. Naser MA. Burnt City and the evolution of cognitive science. Arch Iran Med 2019; 22(8): 480-1.
4. Christensen AE. Mazda Worship in Ancient Iran. Trans. Safa Z. 7th ed. Tehran, Iran: Hirmand Publications; 2016. [In Persian].
5. Gershevitch I. The Avestan Hymn to Mithra. Cambridge, UK: Cambridge University Press; 1954.
6. Hassandoust M, Sarkarati B. An etymological dictionary of Persian language. Tehran, Iran: Academy of Persian Language and Literature; 2014. [In Persian].
7. Lubotsky A. Indo-Iranian *mastŗghan- / *mastŗjhan- 'brain, skull' and its etymology. Iran and the Caucasus 2021; 25(1): 66-73.