

Pulse and Gap in Greek Medicine History

Kamran Mahlooji¹, Mahsima Abdoli²

¹Department of History of Medicine, School of Persian Medicine, Tehran University of Medical Sciences, Tehran, Iran.

²Research Institute for Islamic and Complementary Medicine, School of Traditional Medicine, Iran University of Medical Sciences, Tehran, Iran. Department of History of Medical Sciences, School of Traditional Iranian Medicine, Babol University of Medical Sciences, Babol, Iran.

Abstract

We read and enjoyed the paper entitled "Avicenna and Tremor of the Heart" by Ghahramani et al., which expressed the viewpoints of Avicenna, which was expressed unique subjects. But there are some contradictions with our findings which list as below

Dhanvantari was not a physician, but was of the Hindu gods; nadi in Sanskrit is derived from the word *ney*, referring to hollow paths. On the other hand, Nadi-ha is an equivalent of the pulse, but Nadi has been popular for several hundreds of years; Accordingly, there is no trace of a book written by Dhanvantari in the books translated from Hindi to Arabic during the translation movement, Rafus of Ephesus (70-110 A.D.) had the earliest writing about pulse, and Galen (129-210 A.D.) was not the first to provide a book concerning the pulse.

Also, there was a severe breakdown in Greek medicine concerning the concept of the pulse, according to absence of pulse concept in Hippocrates works.

Dear Editor-in-Chief

We read and enjoyed the paper entitled "Avicenna and Tremor of the Heart" by Ghahramani et al., which expressed the viewpoints of Avicenna about the heart and pulse [1]. "Dhanvantari" was cited as a physician of the fifth century B.C. and the first physician to apply a checkup method using the pulse in some cardiac disorders.

Moreover, the article points out that Avicenna learned the knowledge of pulse from Galen and Dhanvantari. It was also described that Galen had introduced the heart pulse a few years after Dhanvantari did, allowing to infer that Galen was the earliest physician to refer to the issue of the pulse in ancient Greece or Rome.

According to our studies on the identity of Dhanvantari in the book *Secrets of the Pulse: The Ancient Art of Ayurvedic Pulse Diagnosis*, one of the references used in the article mentioned above, it is noted that:

... Dhanvantari, one who uses prana and higher states of consciousness for healing. For thousands of years the vedic literature has used the word *nadi* as a common word for pulse and is the most popular word for pulse throughout the healing system of Ayurveda [2].

Key Words

Pulse, Avicenna, Greek medicine.

Corresponding Author

Mahsima Abdoli;
No 847, behesht St, Vahdat Islami St, Hafiz St, Tehran, Iran;

Additionally, it seems that Dhanvantari was one of the Hindu gods [3], not a physician.

Using this part of the book mentioned above, the author of the paper might have considered the word *nadi* equivalent to pulse. However, it should be noted that the word *nadi* in Sanskrit is derived from the word *ney*, referring to hollow paths. On the other hand, Nadi-ha is an equivalent of the pulse, as used in the book *Secretes of the Pulse*, and Nadi has been popular for several hundreds of years. The word *virijananam* means cognition, and the term *nadi-virijananam* means knowing paths through which the wind passes [4]. Therefore, it is not reasonable that, in the Vedic period, when Dhanvantari was praised as the god of medicine, *nadi-virijananam* would have been used to mean the recognition of the radial pulse. Pulse examination is not mentioned in the classical Ayurvedic texts [5].

Accordingly, there is no trace of a book written by Dhanvantari in the books translated from Hindi to Arabic during the translation movement. Citations are made to 12 Indian physicians in the texts remaining from the time of the relationship between Indian medicine and Islamic medicine: Canakya, Sushruta, Caraka, Astangahrdaya, Madhava, Vrnda, Manica, Salih Bin Behletül, Bahlindad, Shribhar gudate, Kanakah, and śāntah [6]. The name of Dhanvantari is not present in any text remaining from that time. For the same reason, it is unlikely that the writings of Dhanvantari have influenced Avicenna; especially, in the text of Avicenna's Canon, there is no trace of a word equivalent to Dhanvantari or the like.

It is necessary to note that Galen (129-210 A.D.) was not the first to provide a book concerning the pulse. Rafus of Ephesus (70-110 A.D.) had written a work about pulse, which survives to this day [7].

Although the issue of the pulse has been pointed out by Alcmaeon of Croton (5th century B.C.) during the golden era of ancient Greece, this issue is one of the historical unknowns [8]. However, in the works of Hippocrates, no trace is observable of the concept of the pulse [9]. The gap extends to the ancient Rome where Rafus indicated in his book that there was a severe breakdown in Greek medicine concerning the concept of the pulse, explaining that the notion had not yet been adequately explored.

Response to “Letter to the Editor”

Dear Editor,

We thank Mahlooji and colleagues for their interest in our publication and for sharing some of the findings of their own research.

We agree with the authors that there is conflicting evidence and divergence of opinion about who were the first ones to describe the pulse. While further area of research lies in the exploration of this answer, one of the challenges of deciphering information from ancient literature is lack of concrete evidence.

What is important to appreciate from both our publication as well as the letter from Mahlooji et al. is that contributions from ancient physicians have afforded us a better understanding of medicine as we know it today and as we look to the future.

Mehrdad Ghahramani, MD and Mohammed Ruzieh, MD
Penn State Heart & Vascular Institute
Hershey, PA.

References

1. Ghahramani M, Ruzieh M. Avicenna and Tremor of the Heart. *J Atr Fibrillation*. 2018;11 (2).
2. V Lad. *Secrets of the Pulse: the ancient Art of Ayurvedic Pulse Diagnosis*. 2006;
3. LH Gray. The Indian God Dhanvantari. *Journal of the American Oriental Society* .1922;42:323–337.
4. G Mazars. *A concise introduction to Indian medicine*, Motilal Banarsidass Publishe. 2006;
5. BV Subbarayappa. *Medicine and life sciences in India*. Munshirm Manoharlal. 2001;
6. F Sezgin. *history of science and technology in the Islamic world(third volume)*. Frankfurt: Wolfgang Goethe Univercity. 2010;
7. Mahlooji K. Comments on the letter to the editor by Farjadmand et al., on “Galen’s book on sphygmology” [*Int. J. Cardiol*. 221 (2016) 333-334]. *Int. J. Cardiol*. 2017;229 ();
8. Celesia GG. Alcmaeon of Croton’s observations on health, brain, mind, and soul. *J Hist Neurosci*. 2012;21 (4):409–26.
9. S Kuriyama. *New York: The expressiveness of the body and the divergence of Greek and Chinese medicine*. www.surveymonkey.com/mp/audience. 1999;