

Accepted Manuscript

A brief report of rhazes manuscripts in the field of cardiology and cardiovascular diseases

Babak Baharvand-Ahmadi, Mahmoud Bahmani, Arman Zargaran

PII: S0167-5273(16)30051-1
DOI: doi: [10.1016/j.ijcard.2016.01.021](https://doi.org/10.1016/j.ijcard.2016.01.021)
Reference: IJCA 21776

To appear in: *International Journal of Cardiology*

Received date: 2 December 2015
Accepted date: 2 January 2016



Please cite this article as: Baharvand-Ahmadi Babak, Bahmani Mahmoud, Zargaran Arman, A brief report of rhazes manuscripts in the field of cardiology and cardiovascular diseases, *International Journal of Cardiology* (2016), doi: [10.1016/j.ijcard.2016.01.021](https://doi.org/10.1016/j.ijcard.2016.01.021)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

A brief report of Rhazes manuscripts in the field of cardiology and cardiovascular diseases

Babak Baharvand-Ahmadi^a, Mahmoud Bahmani^b, Arman Zargaran^{c,d}

^a Madani Heart Hospital, Lorestan University of Medical Sciences, Khorramabad, Iran

^b Food and Beverages Safety Research Center, Urmia University of Medical Sciences, Urmia,
Iran

^c Department of Traditional Pharmacy, School of Traditional, Medicine, Tehran University of
Medical Sciences, Tehran, Iran

^d Research Office for the History of Persian Medicine, Shiraz University of Medical Sciences,
Shiraz, Iran

Correspondence: Arman Zargaran; Department of Traditional Pharmacy, School of Traditional
Medicine, Vafamesh Street, Heravi Sq., Tehran, Iran; Tel. (mob): +98 9122060881; email:
zargarana@sums.ac.ir

Dear Editor,

There was an important period of time for developing medical sciences between 9th to 12th century AD which is called as Islamic Golden Age (1). It was happened because of some Persian and Muslim physicians' efforts like Akhawayni (?-983 AD), Rhazes (865–925 AD), Haly Abbas (949-982 AD), Avicenna (980-1032AD), Jorjani (1042-1137AD), etc (2). Rhazes was one of the main Persian scientists in that era and had a great influence on the progress of medicine and pharmacy. He was born and died in Rey (near Tehran, current capital of Iran) (3). In the early medieval period, there were two main views on medical sciences in Persian medicine. One group had a more attention to philosophy in medicine like Avicenna and the second group believed to experiments and evidence based medicine more than philosophy. Rhazes belonged to the second group (4). He is famous for his great contribution to the chemistry (*kimia*) and pharmacy as well as his role as a hospital physician (5). But, there are only few investigations on his contribution to the field of cardiology and it is not enough considered till now (6,7).

By reviewing his manuscripts and books, we can find he had many manuscripts with individual and specific titles in the field of cardiology and also cardiovascular diseases. Unfortunately, some of them were destroyed during the history and we can only know about the titles with the help of other historians and physicians' (like Ibn Nadim) citations to them.

The titles of Rhazes' books and manuscripts in the field of cardiology and cardiovascular diseases are listed as below:

1- *Heiat al-Ghalb* (anatomy of heart)

2- *Ekhtesar Ketab Nabz ol-Kabir l-Jalinoos* (Briefing the book of great pulse of Galen): Rhazes briefed one of the Galen's books about pulseology.

3- *Ketab al-Neghres va ergh al-Madani* (the book of gout and Guinea worm)

4- *Fasd* (Bloodletting): He dedicated this book to Amir Abu Ali, king of Samani dynasty.

5- *Neghres* (gout)

6- *Maghalat fi Ekhtelaf al-Dam* (a manuscript on differences of blood): It is a short text (only 13 lines) about differences of blood quality and is kept in the Malek library with voucher no. 4574 (8).

Rhazes is unique among other physicians because of the number of his works in the field of cardiology in that era. It shows his great contribution in this field. Therefore, working on his works in the field of cardiology (both in his general books and in the specific titles in cardiology) can help us to find more about history of cardiology and its progress during the history.

References:

- 1- Zargarán A, Zarshenas MM, Karimi A, Yarmohammadi H, Borhani-Haghighi A. Management of stroke as described by Ibn Sina (Avicenna) in the Canon of Medicine. *Int J Cardiol* 2013;169(4):233-7.
- 2- Zarshenas MM1, Zargarán A, Abolhassanzadeh Z, Vessal K. Jorjani (1042-1137). *J Neurol* 2012;259(12):2764-5.
- 3- Zarshenas MM, Mehdizadeh A, Zargarán A, Mohagheghzadeh A. Rhazes (865–925 AD). *J Neurol* 2012;259(5):1001-2.
- 4- Zarrintan S, Aslanabadi S, Rikhtegar R. Early contributions of Abu Bakr Muhammad Ibn Zakariya Razi (865-925) to evidence-based medicine. *Int J Cardiol* 2013;168(1):604-5.
- 5- Zarrintan S, Najjarian F, Tahmasebzadeh S, Aslanabadi S, Zarrintan MH. Abu Bakr Muhammad ibn Zakariya Razi (AD 865-925) and early description of clinical trials. *Int J Cardiol* 2014;174(3):758-9.
- 6- Nezhad GS, Dalfardi B. Rhazes (865-925 AD), the icon of Persian cardiology. *Int J Cardiol* 2014;177(3):744-7.
- 7- Dalfardi B, Mahmoudi Nezhad GS, Ghanizadeh A. Rhazes' description of a case with aortic regurgitation. *Int J Cardiol* 2014;172(1):e147-8.
- 8- Nadjmabadi M. Bibliographie de Rhazes [in Persian]. Tehran: Tehran University Publications; 1992.

Figure legend:

Fig. 1. An imaginary painting on visiting a young patient by Rhazes (was painted by H. Behzad)

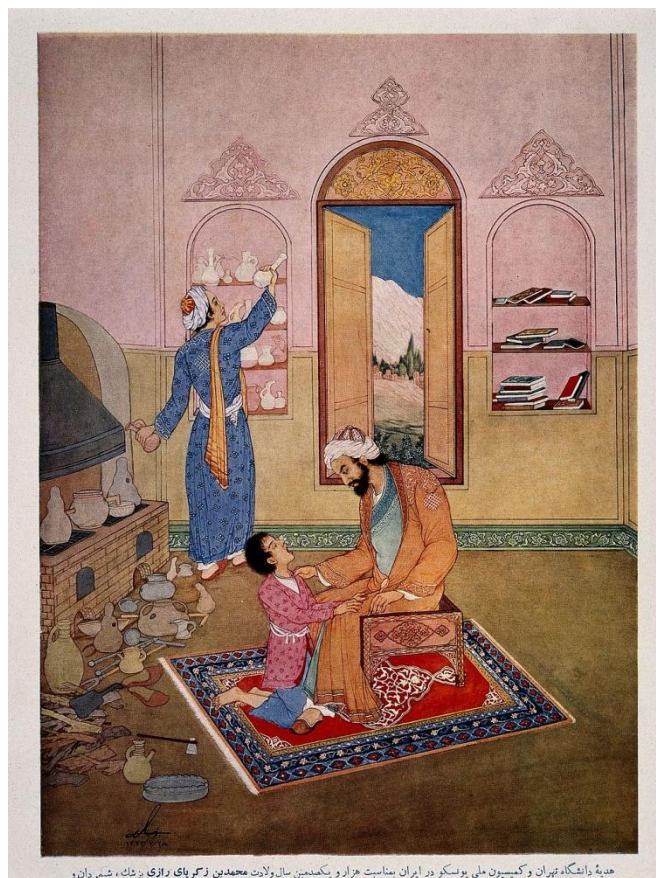


Figure 1