

## SHORT COMMUNICATION

### ***Gabigaj*: A Persian Herb for Protecting Manuscripts against Fungies and Insects from Safavid Era (1501-1722AD)**



#### **Abstract**

Keeping old documents from damage is of considerable points in protecting national resources. Recently, some studies performed to find out ways of protecting manuscripts from defecting of some biologic or chemical factors. Searching through the Iranian manuscripts remain from 15<sup>th</sup> century (AD) until about the second decade of 17<sup>th</sup> century (AD), which was Contemporary with the rule of Safavid government, demonstrate a word written frequently by the writer in several parts of documents and in different forms, as “*Gabigaj*”, which is the name of a Persian plant belonging to Ranunculaceae family.

Historical studies show ta prevalence of magic in different aspects of life through Safavid era in Iran, especially in the case of the magic usage of some plants. In this study we discuss about the magic usage of the name of the plant of “*Gabigaj*” in Safavid era, to protect manuscripts against fungies and insects.

**Key words:** Traditional medicine, Persian medicine, Herbal medicine, industrial fungicides

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Kamran Mahlooji<sup>1,2</sup>   
Mahsima Abdoli<sup>3</sup>  
Arman Zargaran<sup>4</sup> 

1- MSc., Student Scientific Research Center (SSRC), Iranian Society for the History of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran

2- MSc., Department of History of Medicine, School of Persian Medicine, Tehran University of Medical Sciences, Tehran, Iran

3- MSc., Institute for Islamic and Complementary Medicine, School of Traditional Medicine, Iran University of Medical Sciences, Tehran, Iran

4- PharmD, PhD, Department of History of Medicine, School of Persian Medicine, Tehran University of Medical Sciences, Tehran, Iran

#### **Correspondence:**

Arman Zargaran  
PharmD, PhD, Department of History of Medicine, School of Persian Medicine, Tehran University of Medical Sciences, Tehran, Iran  
azargaran@sina.tuma.ac.ir

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## Introduction

Protecting manuscripts and books are always one of the main concerns to keep them safe during time<sup>1</sup>. There are many factors can damage the manuscripts; like physical factors such as temperature and humidity; chemical and photochemical agents such as light and air pollution, Ozone and Nitrogen oxides, as well as some biologic agents such as funguses and insects. Therefore, there are some organizations in the world, which are specially organized to work on keeping the manuscripts safe from various damaging factors. Some of these protecting methods can be listed as keeping the manuscripts in microfilms, special boxes or acid free covers, encapsulating by polyester covers, de-acid the acid manuscripts, and autoclaving the infected ones<sup>2</sup> or using microwave<sup>3</sup>.

But, it seems that this concern has a long history in Persian medicine (PM). PM was a humoral system of medicine dating back to at least 7000 years ago. It was flourished during early medieval era (9-12<sup>th</sup> centuries AD) and continued to 20<sup>th</sup> century when replaced completely by current medicine in Iran. But, it is steel used as traditional medicine nowadays<sup>4</sup>. There are about 17000 remained manuscripts of PM. It seems that there were some methods to protect them against harmful factors. One of the methods used by Persians to protect these books was using a plant which was called as *Gabigaj* in Persian language at least from Safavid Era (1501-1722AD).

### Safavid era (1501-1722AD)

Safavid dynasty, ruled Persia (Iran) for more than two centuries, is considered as one of the most important historical periods of Islamic age of Persia. Over nine hundred years of the Sassanid Empire destruction by the Arabs in 637AD, Iran experienced a long unstable period without any stable long period national government. During the Safavid Era; science, technology and art were flourished, especially during the reign of Shah Abbas I (the king of Safavid dynasty)<sup>5</sup>. In this period of time, forming an expanded relationship between Iran and European societies was started, and it was such a turning point for international exchanges. Pharmacy was one of the medical fields that was progressed and developed during this time. Also, using herbs as well as magic were common for various aims by various ways<sup>6</sup>.

- 1- Tisdal, 1965: 786.
- 2- Naseri, 2011: 108-123.
- 3- Bahadori, 2003: 153-158.
- 4- Avicenna, 2007: 243.
- 5- Newman, 2012: : 98-125.
- 6- Lockhart, 2014: 50-120.



**Gabigaj; the magical and medicinal herb to protect the manuscripts**

*Gabigaj* or Persian buttercup (*Ranunculus asiaticus* L.) is a Persian plant belonging to Ranunculaceae family. There are some evidences of using leaves of this plant among the pages of the manuscripts belongs to 16<sup>th</sup> century and later. Also, at the first page of many of these manuscripts, there is a benedictory phrases like “*Ya Gabigaj*”<sup>7</sup> (Figure 1), “*ya Mahmood ya Gabigaj*”<sup>8</sup> (Figure 2), “*ya Gabigaj ya Hefz*”<sup>9</sup> (Figure 3), or an imperative sentence, “*Ehfez Gabigaj*”<sup>10</sup> and mostly use of “*Gabigaj*”<sup>11</sup> (Figure 4). In these phrases, *ya* is a word for calling a person or something aiming to recourse; *Mohammad* means admired (the prophet of Islam), *hefz* means protection, *Ehfez* means protect (as verb). Some of these phrases were written in the form of magic triangle shape (Figure 5). It seems that these phrases were used as amulet to protect of the manuscripts<sup>12</sup>.

- 7- al-jamali, 1525, No. 931/1525.
- 8- Tusi, 17<sup>th</sup> Century: 3.
- 9- Baba, 18<sup>th</sup> Century: n.p.
- 10- al-Kattani, 1814, No. 1229/1814.
- 11- Anonymous, 18<sup>th</sup> Century: n.p.
- 12- Gacek, 1986: 49-53.



Figure 1. Manuscript of *al-Mukhtarat*, by al-jamali, 931/1525, kept in Leiden university library



Figure 2. Manuscript of *Tahzib al-ahkam*, by Tusi, kept in National Library and Arcives I. R. of Iran





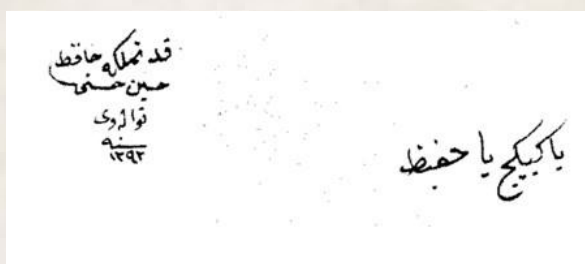


Figure 3. Manuscript of *Khulasat al-rab*, by Baba ,18<sup>th</sup> century, kept in Leiden university library

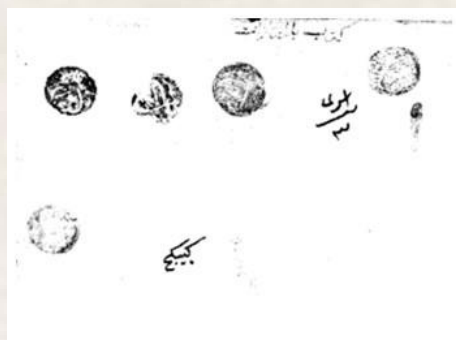


Figure 4. Manuscript of *Mutaqin al-Riwayah fi Ulum al-Qira ah wa-Dawayah*, by al-Kattani, 1229/1814, kept in Leiden university library

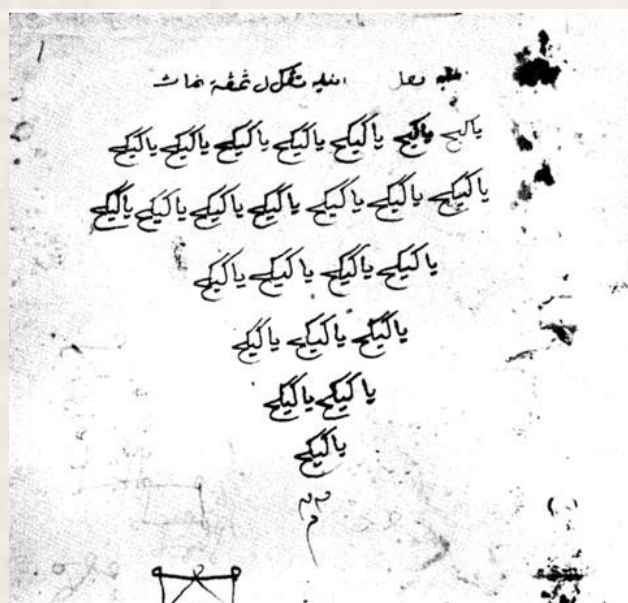


Figure 5. Manuscript of *Panj-Ganj*, by Unknown, 18 century, kept in National Library and Archives I.R of Iran

By looking at historical manuscripts, the oldest ones that



have such phrases; or the herb of *Gabigaj* was used in them date back to Safavid era; therefore it seems that this tradition was started from that time<sup>13</sup>.

### ***Gabigaj* in PM documents**

This herb has been mentioned from ancient times. In the book of *Al-Hashayesh (De Materia medica)*; written by Dioscorides (an ancient Greek physician, 54-68 AD), this plant was named as "*BetraKhon*"<sup>14</sup>. After that, in Persian Medicine text books, *Gabigaj* was used for different therapeutic effects, such as facilitate delivery, tooth pain relief, elimination of eye and skin diseases and it seems to be an pruritus herb<sup>15, 16</sup>.

### **Current findings**

*Gabigaj* (Persian buttercup) is a native plant to the eastern Mediterranean region in southwestern Asia, southeastern Europe, and northeastern Africa. It grows to 45 cm tall, with simple or branched stem. The basal leaves are three-lobed, and the flowers are 3-5 cm diameter, variably red to pink, yellow or white with one to several flowers on each stem<sup>17</sup>. It contains Anemonin that is identifiable immediately after bursting the flowers, with a strong toxic effect and extensive use in pharmaceutical industry<sup>18</sup>. Current Findings show that *R. asiaticus* has a fungicidal activity against *Fusarium Oxy-sporum f.sp. lycopersici*<sup>19</sup>, *Cladosporium spp.* and *Penicillium spp.* Its efficacy to prevent fungal contamination of the manuscripts was also shown in a study<sup>20</sup>.

### **Conclusion**

According to explanations above, it is evident that, from ancient times up to around 16<sup>th</sup> century, *Gabigaj* mentioned only for treatment, and for its protective effects, had traditionally used from Safavid era. And the magic usage of this herb that has been mentioned by some researchers matches the findings of scientific studies. Probably this herb has been used in the production of papers and ink and if it becomes prove, a giant mutation will occur in the cognition of this productions proses.

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- 13- Ranjbar, 2016: 1-6.  
14- Ibn- Beitar, 1920: 203.  
15- Aghili Khorasani, 2011: 652.  
16- Razi, 2005: 209.  
17- Khobani Rabani, 2016: 104-123.  
18- Mirheidar, 1994: 386.  
19- Qasem, 1996: 533-540.  
20- Khobani Rabani, 2016: 104-123.



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