





# Abstract

Mrs. Dr. Soghra Azarmi (1914-1973) is one of the most influential female doctors in Iran's contemporary history. She was the first pathologist and the pioneer of the cytology database, making a significant impact on the lives of many women suffering from cancer. Various experiences marked her life, and she navigated through the stages of career progression with genuine merit. Dr. Soghra Azarmi initiated her secondary education in Hamedan, located in western Iran. Following a teaching period she pursued her medical studies at Tehran University. Later, she ventured to the United States, where she worked at Women's Hospital in Chicago. Illinois. There she pursued her studies in Pathology. Subsequently, she obtained a research opportunity in Melbourne, Australia, and furthered her studies in cytology at Johns Hopkins University in Baltimore. Upon returning to Iran, Dr. Soghra Azarmi joined the National Cancer Society, where she played a crucial role in saving the lives of numerous cancer patients. This research gives an introduction to the pathology department at Tehran University and subsequently reports the scientific and research journey of the esteemed professor in the pathology department.

**Key words:** Dr. Soghra Azarmi, Pathology, University of Tehran, History of Medicine, Iran

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Reza Karami (Ph.D. Candidate)<sup>1,2©</sup>

Seyyed Alireza Golshani (Ph.D.) 3 ©

- 1- History of Iran after Islam, Department of History, Faculty of Literature and Humanities, Kharazmi University, Tehran, Iran
- 2- Expert of Hamedan Province Health Historical Cultural Collection, Hamedan University of Medical Sciences, Hamedan, Iran
- 3- History of Iran after Islam, Traditional Medicine and Hydrotherapy Research Center, Ardabil University of Medical Sciences, Ardabil, Iran

### Correspondence:

Seyyed Alireza Golshani

Ph. D, History of Iran after Islam, Traditional Medicine and Hydrotherapy Research Center, Ardabil University of Medical Sciences, Ardabil, Iran e-mail: golshani\_22@yahoo.com

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### Introduction

Before exploring Dr. Soghra Azarmi's life, it is essential to examine the history of pathology in Iran, particularly in the early 20th century and its establishment at Tehran University. The initiation of clinical anatomy in Iran can be attributed to Professor Mostafa Habibi Golpayegani (1904-1948). Pathology was not part of the standard educational program in Iran before 1933; however, Professor Ali Falati (1889-1960) taught histology and clinical anatomy at Tehran University during that period. His work was later followed by Mostafa Habibi, who then held the university's professorship of histology and embryology. Professor Habibi passed away in 1947, leaving his position vacant for six years (Azizi, and Bahadori, 2006, pp. 438-439; Aslani, 2015, pp. 14-16; Zargaran, 2015, p. 135). Subsequently, two of Professor Habibi's notable students, Professor Kamaleddin Armin (1914-1995) and Professor Hossein Rahmatian (1912-1986), took on the role of pathology lecturer. In 1953, Professor Rahmatian and Professor Abdul Mahmood Zia Shamsa (1922-1999) established the first pathology laboratory in a 1000-bed hospital equipped with an electron microscope and tissue and cellular pathology departments. Concurrently, they launched the chair of oncology at the University of Tehran. Graduates from this laboratory became renowned pathology professors in the Middle East, including countries like Turkey, Pakistan, and Egypt. Professor Armin established a pathology laboratory alongside the hospital pathology laboratory on the university grounds. These two laboratories were crucial in training numerous students who contributed to various universities nationwide (Bahadori, Eslami, and, Azizi, 2018, p. 551; Azizi, Bahadori, and, Azizi, 2013, pp. 615-616). Another influential figure in shaping the position of pathology in Iran was Professor Moslem Bahadori (1927-2022). Known for his contributions to clinical medicine and molecular pathology. Bahadori played a crucial role in bridging the gap between doctors and molecular pathology and pathophysiology in Iran. His efforts also strengthened research in this field, and he established an international research class at Tehran University of Medical Sciences (Azizi, 2018, p. 380)

The Taj Pahlavi Cancer Institute, now known as the Cancer Institute, affiliated with the University of Tehran, has been a highly active center in pathology. A significant milestone occurred in 1957 with the appointment of Dr. Soghra Azarmi, marking the first woman in the history of contemporary Iran in pathology. Dr. Azarmi's employment at the institute initiated a new chapter in women's medical history. After joining the cytology base at the Farah Pahlavi Maternity Hospital, Dr. Azarmi continued her medical services. Notably, she achieved a significant milestone by conducting cancer cytology tests on 30,000 women in this base, leading to early diagnoses and saving their lives (Farrokhzad, 2002, pp. 37-38; Modjtabai, and Shariatmadari, 1972, p. 30). This research aims to explore the scientific journey of Dr. Soghra Azarmi throughout her remarkable life, tracing the path of one of the most influential women in the history of contemporary medicine. The investigation will use historical sources to illuminate various aspects of her impactful career.

## **Materials and Methods**

This research adopts a descriptive-analytical approach, relying on library resources from contemporary history and documentary sources, as well as recent studies and newspapers. The methodology follows the style of historical research, incorporating the Annales school's perspective, which combines both the Biography and Contemporary

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medical history of Iran approaches. The study provides an overview of contemporary medicine in Iran, serving as a backdrop for the critical examination of the scientific life of Dr. Soghra Azarmi. A specific focus will be placed on her relationship with the Department of Pathology at Tehran University.

# Biography of Dr. Soghra Azarmi

Dr. Soghra Azarmi, the first pathologist and the first founder of the cytology center that saved the lives of hundreds of women suffering from cancer, was born in 1914 in Asadabad, Hamedan (Heydari, Karami, and Alisoufi, 2019, pp. 177-179).

Soghra Azarmi completed her primary education at Tae'ed School of Hamedan. Her father, Mohammad Hassan Khan Azarmi, who was a small landowner of Asadabad, left Hamedan for Kermanshah due to some family problems. But after a while, he returned to this city. In the heat of the Iranian liberation movement to establish a constitutional government, under the influence of the liberation party's new ideas and, contrary to the norms of the time, he decided to send his daughters to school to become educated (Farrokhzad, 2002, pp. 37-38).

At the age of 13, Miss. Soghra Azarmi succeeded in completing her high school education, and at that time, at the initial suggestion of Tae'ed primary school in Hamedan, she began teaching in the fifth and sixth grades at the same school.

After a while, her sister received her sixth-grade certificate, but because of her small body size, she was not fit for teaching, so her father sent her to an American school. Her sister's presence in the American school was a prelude to Miss. Azarmi started to learn English, and she took the first steps with great difficulty, enlisting the help of her sister (Ghani Parsa, 2016, p. 187).

When the American school officials learned of this, they invited her to teach and attend school at the same time and asked her to drop out of public school. She worked in the American school for two years, but attended this school again as a student, and finally succeeded in obtaining a diploma from the American school in Hamedan, which was equivalent to a ten-year course in Iranian schools, and became the secretary of an American high school.

While teaching, she began studying with private tutors to prepare for the 11th grade of high school. This time coincided with the closure of foreign primary schools ordered by the Ministry of Culture at the time (Karami, 2020, p. 7). After leaving for Tehran, she continued her education at the American School in Tehran and in 1932, she received a high school diploma (Faizi-Sakha, 2009, pp. 197-208).

Dr. Azarmi returned to Hamedan again and at the suggestion of the officials of the American High School of Hamedan, Miss. Soghra Azarmi obtained the privilege of Ecbatan Elementary School and presided over the school in the American Elementary School style for 5 years. During this period, her interest in continuing her education and obtaining scientific degrees led her to resign from the presidency of the primary school and go to Tehran again (Farrokhzad, 2002, pp. 37-38).

This time she attended an American college course, completed a four-year college course in three years, and received a scholarship from the Philadelphia School of Medicine to continue her studies. However, she could not get the passport on time and hence lost the scholarship.

This time she went to the Faculty of Medicine, University of Tehran, but her efforts to make them accept an American college diploma instead of a boys' high school diploma were unsuccessful. The head of the university office conditioned her acceptance to participate in the entrance exam to one year of her participation in the courses held at the University of Higher Education. But a short time later, the Department of Culture recognized her American College diploma as equivalent to a bachelor's degree. After graduating from medical school in 1947, Miss. Azarmii left for the United States. The late Dr. Soghra Azarmi was one of the first women who graduated from Tehran Medical University. She left for the United States the same year to continue her education at the Chicago Women's Hospital and treated patients as a pathologist (Farrokhzad, 2002, pp. 37-38). It was there that she married the late Prof. Dr. Mahmoud Hesabi (1903-1992), an Iranian nuclear physicist and senator, but this marriage did not last long, and the two separated for some reason after returning to Iran (Heydari, Karami, and, Alisoufi, 2019, p. 410). Dr. Azarmi never married again, but she adopted a child from Hamadan earthquake victims (1957 Farsinaj earthquake).

She was employed at Taj Institute affiliated with the University of Tehran, and, owing to her intense activity, she became the director of the clinic in 1957. She worked at the institute for eight years, and in 1955, at the invitation of the Australian Government, she started working in the pathology department of Melbourne University, and a year later left for Baltimore, USA, this time at Johns Hopkins University, Cytology Department. Returning to Iran, she worked again both at Taj Institute and the National Cancer Society, where she worked until the end of her retirement (Farrokhzad, 2002, pp. 37-38). (Figures 1-5)



Figure 1. Personal photo of Dr. Soghra Azarmi, while a student at the University of Tehran (The Photo is taken from Azarmi family archive).

# ٤ = تأثير ويتامين ب يك در در د هاى بياى

پایان نامه دکتر بانو صغری آ درمی فارغ التحصیل ۲۰ ـ ۱۳۲۰ دانشکده پزشکی تحت عنوان فوق در تاریخ ۲۰/۸/۱۱ با درجه بسیار خوب بتصویب هیئت قضاة رسیده است. شماره پایان نامه مز بور در کتابخانه ۷۷۰ و نتیجه آن بقر ار زیر است:

از زمانیکه ویتامین هاداخل دردرمان بیماریها گردیده قدم مهمی درمهالجه دردهای بی ای بر داشته شده است از مشاهده است بالینی بر میآید که هر گاه درد عصب بعلتی خاص مانند میکر بی ویافشار روی عصب وغیره باشد درمان باویتامین ب یك به تنهای چندان سو دمند نبو ده و هنگای

Figure 2. The thesis "Effect of vitamin B1 on PE pain" was defended by Dr. Soghari Azarmi at the Faculty of Medicine, University of Tehran on 2 - 11 - 1946. (Karami, 2020, p. 7).



Figure 3. A group of medical graduates from Tehran University in their mid-twenties, around the years 24-25, in this photo, Dr. Abdullah Jalali, the founder of the first private hospital in Hamedan called Bou-Ali Hospital, is also present (from an interview held with daughter for writing my book (The Photo is taken from Azarmi family archive)).



Figure 4. Dr. Soghra Azarmi's aging photo (The Photo is taken from Azarmi family archive).

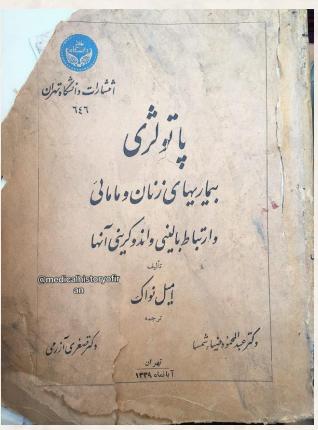


Figure 5. Translation of the book "Gynecologic and Obstetric Pathology (Pathology of Women's Diseases and Obstetrics and their Clinical and Endocranial Relationship)" by Dr. Emil Novak (1883 - 1957), in October 1960. (Heydari, Karami, and Alisoufi, 2019, p. 410)

In the late sixties, Dr. Soghra Azarmi continued to provide medical services at the Cytology center (Farah Pahlavi Maternity Hospital) and according to the statistics published



during her service, she succeeded in conducting cytological tests on 30,000 women in this base, identifying women and mothers who were at risk of contracting the disease and reducing death risk. Unfortunately, Soghra Azarmi who was one of the first female doctors and the first female cancer specialist in Iran, died of this deadly disease in 1973 and was buried in Ibn Babavieh Cemetery in Rey (Farrokhzad, 2002, pp. 37-38).

### Conclusion

The onset of modern history in Iranian medicine, particularly pathology, presented a distinct environment compared to other medical disciplines. For many years, it operated within a predominantly male domain. However, a significant shift occurred with the recruitment and presence of Dr. Soghra Azarmi, a woman, in two key centers—the Pahlavi Cancer Institute and the Cytology center. Both these institutes are integral parts of Tehran University. Dr. Azarmi's entry into these centers marked a transformative moment in the contemporary history of Iranian pathology, especially regarding the significance of women's health, particularly in the context of cancer. This development led to a new and scientifically distinctive approach, bringing about substantial changes in various aspects of the field of pathology. The focus on women's diseases gained prominence during this time. This transformative trend, initiated by Dr. Azarmi, has persisted to the present day, thanks to the ongoing efforts of pathology specialists. Today, many women in Iran actively contribute to the field of pathology, continuing the path paved by the late Dr. Soghra Azarmi.

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# **Authors' Contribution**

Reza Karmi has presented the design and the idea of the work. Editing and the analysis was done by Seyyed Alireza Golshani. All authors read and approved the final version of the work.

## **Conflict of Interest**

None.

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