

Serefeddin Sabuncuoglu: A Pioneer in Ottoman Medicine and Surgery

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Introduction

The Ottoman State witnessed significant advancements in the fields of science and art during the 15th century, with notable progress also occurring in the field of medicine. Among the prominent medical scholars of this period was Şerefeddin Sabuncuođlu, who distinguished himself through innovative surgical practices and substantial contributions to the Turkish medical literature. Sabuncuođlu left an indelible mark on Islamic medical history, with his influence extending beyond the Islamic world into Western medicine.

The Life of Serefeddin Sabuncuo lu

Şerefeddin Sabuncuođlu was born in 1386 in Amasya, an important intellectual center of the Ottoman Empire (1). He hailed from a prominent medical family; his grandfather, Sabuncuođlu Mevlânâ el-Hâc İlyas Çelebi Bey, was the chief physician of Çelebi Sultan Mehmed. It is believed that Sabuncuođlu received his medical education at the Amasya Darüşşifa under the tutelage of Burhâneddin Ahmed en-Nahcuvânî (2). After practicing medicine there for fourteen years, he spent some time in Kastamonu, where he began writing his seminal works. Notably, after completing *Cerrâhiyye-i İlhâniyye*, he traveled to Istanbul to present the work to Sultan Mehmed the Conqueror. In his final work, *Mücerrebname*, written in 1468, Sabuncuođlu mentioned that he was 85 years old at the time, and he is presumed to have passed away shortly thereafter.

Despite his contributions, Sabuncuođlu's name was not widely recognized within the Ottoman scientific community. His name first appeared in the historical record in the 1505 work *Alâim-i Cerrâhin* by the surgeon

İbrahim b. Abdullah. Additionally (3), Sabuncuođlu's student Gıyâs b. Muhammed İsfahânî praised his mentor's medical achievements in his book *Mir'âtü's-şihha*, which he dedicated to Sultan Bayezid II (4).

The Works of Serefeddin Sabuncuoğlu

Şerefeddin Sabuncuođlu's most renowned work is *Cerrâhiyye-i İlhâniyye*, which holds the distinction of being the first surgical text written in Turkish during the Ottoman period. This work not only reflects the level of Turkish surgery in the 15th century but also represents an adaptation of the surgical section of the Andalusian Islamic physician Abu al-Qasim al-Zahrawi's *Kitâb al-Taşrif*, with the addition of two new chapters, as well as illustrations of surgical instruments and patient treatments. *Cerrâhiyye-i İlhâniyye* is unique in medical history for being the first text to depict surgical interventions using miniature illustrations (5). The text's composition in straightforward and accessible Turkish further underscores its significant contribution to Turkish medical literature, and its reflection of the linguistic features of Anatolian Turkish makes it an essential resource for the study of Turkish grammar and phonetics (6).

Three known copies of the manuscript have survived to the present day. Two of these copies, housed at the Bibliothèque Nationale in Paris and the Millet Library in Istanbul, were penned by Sabuncuođlu himself. Among these, the Paris manuscript, which was presented to Sultan Mehmed the Conqueror and bears the seal of Sultan Bayezid II, is regarded as the most valuable. This manuscript consists of 205 folios, each containing seventeen lines of meticulously penned Turkish text, with red ink used to highlight key titles. The text offers

detailed descriptions of various treatments involving cauterization, surgical procedures, and the management of fractures and dislocations, all accompanied by a total of 138 miniature illustrations and depictions of surgical instruments. Notably, some of the points described for cauterization treatments have been found to coincide with acupuncture points (7).

Another significant work by Sabuncuoğlu is *Mücerrebname*, which details the preparation and usage of various medicines tested on animals, humans, and even the author himself (8). *Mücerrebname* is notable as the first monograph in Turkish medical history to describe a physician's own medicinal discoveries and treatment methods. The text is organized in a manner similar to modern case reports, with medicines categorized from most to least used.

Sabuncuoğlu also translated the "Akrâbâzîn" section of the *Zahîre-i Hârizmşâhî*, a Persian work by Ismail b. Hasan al-Jurjani, into Turkish at the request of Prince Bayezid in 1444. This work, known as *Akrâbâzîn Tercümesi*, provided detailed instructions on the preparation and application of various medications, significantly contributing to the development of Turkish medical terminology (2, 9).

Contributions and Innovations in Medicine

Şerefeddin Sabuncuoğlu made significant contributions to the field of surgery, leaving a lasting impact on the medical world. The innovations he introduced in *Cerrâhiyye-i İlhâniyye*, particularly in orthopedics, neurosurgery, urology, gynecology, and paediatric surgery, underscore his importance in medical history. For example, the techniques he developed for spinal surgery, neurological disorders, pain management, and anesthesia were widely adopted in subsequent periods (10, 11).

Sabuncuoğlu also introduced groundbreaking designs for surgical instruments, meticulously illustrating their use in his Works (12). These original contributions had a profound influence not only on Ottoman medicine but also on Western surgical practices. His detailed illustrations, created despite the technical limitations of his time, ensured that his works attained a universal quality (13).

Beyond surgery, Sabuncuoğlu made notable advancements in dermatology, ophthalmology, dentistry, orthopedics, and neurology. His work in these areas demonstrates his comprehensive medical knowledge and

his ability to apply this knowledge effectively in practice. Particularly, his contributions to pain management and anesthesia laid the foundation for modern anesthetic practices (14).

In the field of obstetrics and gynecology, Sabuncuoğlu introduced innovative surgical techniques and designed specialized instruments, which he meticulously documented in his works (15). These advancements highlight his progressive understanding of medical science for his time.

Moreover, the detailed illustrations in Sabuncuoğlu's works played a vital role in medical education of the time, enabling surgical techniques to be disseminated more widely. His contributions represent a pivotal moment in Islamic medical history, establishing a foundation for the development of modern medicine.

Conclusion

Şerefeddin Sabuncuoğlu was a pioneering figure in the development of Ottoman medicine, introducing numerous innovations that have had a lasting impact on the field. His works are not only valuable for their medical content but also for their cultural and scientific significance. Understanding Sabuncuoğlu's life and contributions is crucial for appreciating the role of Muslim scholars in the foundations of modern medicine. Therefore, recognizing and preserving his legacy is of great importance for both medical and cultural history.

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A miniature from *Cerrâhiyye-i İlhâniyye* (Millet Library, Medical Collection, no. 79/353, folio 47a)