Theriac in the Persian Traditional Medicine

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Theriac is a term referring to medical compounds that were originally used by the Greeks from the first century A.D. to the nineteenth century. The term derived from ancient Greek thēr (θήρ), “wild animal”. Nicander of Colophon (2nd century BC) was the earliest known mention of Theriac in his work Alexipharmaka (Ἀλεξιφάρμακα), “drugs for protection”. During the era of King Mithridates VI of Pontus (132-63 BC), the universal antidote was known as mithridatum (μιθριδάτιο or mithridatum or mithridaticum) in acknowledgment of the compound’s supposed inventor or at least best-known beneficiary. It contained around forty ingredients, such as opium, saffron, castor, myrrh, cinnamon and ginger. Theriac was not only used as an antidote from poisoning but also for various diseases, such as chronic cough, stomachache, asthma, chest pain, fever, colic, seizures, diarrhea, and retention of urine. The present study aims to collect and discuss the mentions of theriac in Persian medical texts.

Keywords: History, traditional medicine, pharmacy, toxicology

INTRODUCTION

Since time immemorial, human beings have tried to discover or to create a universal antidote that could protect against all poisons, whether they were derived from plants, animals, or minerals. Such an antidote was a particular preoccupation of powerful rulers and the affluent; both groups were motivated by fear of poisoning and a desire somehow to purchase longevity. Among speakers of Arabic, the elusive elixir came to be referred to as a “theriac” (ثرياق), a word derived from ancient Greek thēr (θήρ), “wild animal” (1).

The earliest known mention of the subject in writing was by the ancient Greek poet Nicander of Colophon (2nd century BC) in his work Alexipharmaka (Ἀλεξιφάρμακα), meaning “drugs for protection” (Fig. 1). There is also a story from around Nicander’s time regarding King Mithridates VI of Pontus (132–63 BC) and his closest followers attempting to commit suicide by poison after suffering defeat in the hands of the Romans. According to the story by the historians Cassius Dio and Appian, all of the people who took the drug died except the king himself, whose survival was attributed to his lifelong consumption of antidotes against the poisons of would-be assassins (in the event, he is said to have died by the sword) (2, 3). The writings of the most famous Roman physician, Galen (129–ca. 201), on the subject—which were more scientific than Nicander’s if not more accurate—became a source for many medieval texts about poisons and antidotes. He and other writers referred to the universal antidote as mithridatum (μιθριδάτιο or mithridatum or mithridaticum) in acknowledgment of the compound’s supposed inventor or at least best-known beneficiary (1). This study aims to collect and discuss the mentions of theriac in Persian medical texts.

Theriac in Persian Medical Texts

In the 10th or 11th century Persian (specifically Zoroastrian) text Arda Wiraz (Wiraz the Just), the title character is given a concoction of wine and Bang (4 haoma (henbane in preparation for a seven-day spiritual journey to heaven and hell and afterward receives an anīš khus ("delicious antidote") to counteract the effects of the initial dose. Also, while he is in heaven, Wiraz receives anīš from “the souls of the deceased” that is described as an “elixir of eternity” and resembles in many ways the ambrosia consumed by the ancient Greek gods (5).

By the time the entire region adopted Islam, theriacs were part of a long-standing Persian medical tradition, and they were used by physicians (Fig. 2). Thus, Ali b. Sahl Rabban al-Tabari. (9th century), synthesized Greek, Persian and Indian medicine in a compendium called Firdaus al-Hikma the administration of theriacs for conditions involving the liver, kidney, and intestines, gout and colic, and to counteract a variety of poisons and infections resulting from animal bites were described (Fig. 3). Tabari’s sole source regarding theriacs seems to have been Galen’s work; however, he strongly advised against the use of theriacs, the effects of which on the young he com-
pared to extinguishing their heat like a lamp running out of oil (6). Muhammad b. Zakaria al-Razi (854–925) also cited Galen, but, in this case, in support of the notion that a theriac may counteract snake venom and all other poisons (7). Also, writing at about this time, Abū Abdallah Khwarazmi noted the Greek origin of the term, and Abū Rayhan Birūnī (973–1050) made many references to the properties and types of theriacs, which he described as tīrīq fārūq, “that which saves” or “that which abstracts poison from the body” (8, 9).

Avicenna (as he is known in the West; ca. 980–1037) again traced theriacs back to King Mithridates but identified as the best method for producing them the one practiced by Andromachus the Elder of Crete, physician to the Roman Emperor Nero (reigned 55–68 CE). “Many physicians have tried to add ingredients to or remove ingredients from the fārūq, which was the only way left for them,” Avicenna stated in his Canon of Medicine (al-Qānūn fī al-Tibb), asking, “Do you know the reasoning behind their manipulation of the formula? (Fig. 4) Simply to go down in history and be honored for playing a part in the making of fārūq. They wanted to be as well known as Andromachus.” Avicenna appears to have been of the opinion that the theriac proved effective in counteracting poisons and healing many diseases; the maladies for which it prescribed included chronic cough, stomach ache, asthma, chest pain, fever, colic, seizures, diarrhoea, and retention of urine (10). His contemporary Muhammad ibn Sa’īd al-Tamimi (d. 990) wrote three separate monographs on theriacs and even created one of his own consisting of sixty-six basic drugs in addition to honey and wine that, he claimed, protected against the venom of all snakes and scorpions (11, 12).

In the following century, in the eastern Muslim world, Ismail Jurjānī (1041–1136) repeatedly referred to various types of theriacs and their medical properties. In Zakhira Khwarazmshahi (literally, Treasure Dedicated to the King of Khwarazm), for instance, he described theriacs as having the power to treat various poisons, cure seizures, nausea, toothache, parasites, and urination problems, and to prevent winter illnesses among the elderly, as well as leprosy (13). Jurjānī included a story from his own clinical experience of a man whose bleeding larynx was supposedly cured by the administration of a theriac (14). Like many medical writers of the period, he served the king; Abu al-‘Ala Ibn Zuhr (1094–1162), on the opposite side of the Muslim world, wrote of making a theriac for the ruler of al-Andalus that included saffron (15). Somewhat later, in 1360, a presumably Jewish physician working in Cairo, al-‘Attar Haruni al-Israili, described, in a volume on pharmacy titled Minhaj al-Dukkan wa-Dustur al-A’yan (The Management of the [Pharmacist’s] Shop and Preparation of Useful Medicines), a new theriac consisting of 86 components. This mixture, he claimed, when dissolved in water and taken with honey, counteracted poisons, as well as treating respiratory, chest and stomach conditions, chest pains in the chest, and colic (16).

In the following centuries, theriacs continued to receive considerable attention in Persian books on medicine and pharmacology of the Safavid era. Many scholars wrote about fārūq, such as Kamaleddin Hasan Shirazi, who, in a work that appeared in 1563,
discussed the opinions of previous physicians regarding the amount of time required to prepare a theriac (with estimates ranging from five to twelve years); he also asserted that a theriac maintained full potency for thirty years and at least partial potency for sixty. Shirazi listed various methods for assessing a theriac’s efficacy based on its power either to assist a person in recovering from the effects of a laxative, to allow a rooster to survive a viper bite (an experiment that he described as “Galen’s method”), or to protect some other animal from poison (17). Sometime later, in 1707, Himawi Yazdi wrote, while in exile in India, yet another work on theriacs, *Tuhfat Shah Abbasia*, in which he recommended their administration after bleeding procedures, such as cupping (18).

This little-known work was composed not long after one of the best-known volumes on medicine and pharmacology of the Safavid period, *Tuhfat al-Muminin* (1695) by Muhammad Mumin Husayni Tunekabuni, also known as Hakim Mumin. In addition to prescribing *fāriq* for chronic constipation, the author mentioned eight types of theriacs (19). Interestingly enough, Persia and Europe shared an interest in theriacs in this period, as is evident in the first European natural history encyclopedia, *The Hortus Sanitatis* (The Garden of Health) by Jacob Meydenbach (20, 21) which appeared in 1491, and the *Andromachus Theriac*, which appeared in 1634 (22).

Theriacs remained a common topic in books on medicine and pharmacology in the East throughout the 18th century. Muhammad Husayn Aqili Khurasani from Shiraz, for example, once more traced the history of theriacs back to ancient Greece and wrote of their efficacy against orally administered poisons and snake and scorpion venom, as well as their capacity, when administered to nursing mothers, to render breast milk digestible by sensitive infants. Khurasani also described a theriac called *daway-i shafia* that was supposedly supplied by the angel Gabriel to Moses for protection against food poisoned by the pharaoh and later to the Prophet of Islam, for which reason it was alternatively known as *daway-i Muhammadi* (23, 24).

Following the introduction of modern Western medicine in the global east in the 19th century, handbooks on traditional pharmacology continued to be written, although they had far less authority than they had during the medieval era. Moreover, even in these newer books, the effects of modern medicine were felt for theriacs were downplayed or treated with skepticism. Ali b. Zayn al-'Abidin al-Hamadani, for example, wrote in 1893, characterized theriacs as toxic, (25) and Nasir al-Hokam in 1907 affirmed that no theriac had the power to counteract snake venom (26).
CONCLUSION

The copious references to various universal antidotes and panaceas in the mythology, as well as the healing traditions of many people, attest to the universal desire for protection against the many compounds that may disrupt the normal functioning of the human body. In their search for these drugs, Muslim physicians, not least Persian physicians, were heirs to the medical traditions of ancient Greek and Rome on the one hand and of ancient Persian on the other, with the former being dominant. Thus, the mentions of antidotes in Persian scholarly and mythological texts of the medieval period all build on or are in some way informed by ancient Greek writers. Starting near the beginning of the Islamic era, physicians and pharmacologists strived for the better part of a millennium to develop an effective theriac by changing the many ingredients that went into these concoctions and their proportions or the methods by which they were produced. Many Persian writers of the era spoke of the astonishing effects of various types of theriaecs—which is a topic deserving of more extensive research. Supported by the great authority accorded to Greek medicine in both the Muslim world and Europe, the belief that theriaecs could protect individuals from poisons and various maladies persisted well into the modern era, only gradually being dispelled by the progress of the Western medicine founded on scientific principles (27).

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