THE INFECTIONS IN THE HISTORY OF MEDICINE

Asclepieia in ancient Greece: pilgrimage and healing destinations, the forerunner of medical tourism

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SUMMARY

Asclepios, the first physician-demigod in Greek mythology, was born in Thessaly of the God Apollo and Coronis, a mortal mother. Asclepieia were healing sanctuaries dedicated to Asclepios. Asclepieia were located throughout the Eastern Mediterranean area, in ancient Greece and the Roman world. Travelers from

sclepios, the first physician-demigod in Greek mythology was born in Thessaly of the God Apollo and Coronis, a mortal mother. In Homer's Iliad, Asclepios was a human, and in particular a great physician and surgeon who treated wounded soldiers during the Trojan War (between the 12th and 11th century BC); however, by Hippocrates' era (5th century BC), Asclepios was considered a God [1]. Asclepios has been depicted as a middle-aged man with a rod with a snake wrapped around it. The snake refers to a snake bite causing the most severe disease which was very difficult to treat in ancient times; however, Asclepios had the ability to heal it. The rod with the snake, which is the symbol of physicians worldwide, is known as the "Rod of Asclepios" [1].

In ancient Greece the roots of healing and medicine lied in religion and spirituality. Asclepieia were healing sanctuaries dedicated to Asclepios [1]. Asclepios' cult emerged more clearly between the 6th and 4th century BC. It was only with Ascle-

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all over the Mediterranean area seeking healing made pilgrimages to the Asclepieia, the early forerunner of "medical tourism".

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pios that formal hospitals were established. Asclepieia operated as public healthcare facilities, "sacred" hospitals, and medical teaching centers [2]. A "sacred healthcare network" with over 300 Asclepieia had been established throughout ancient Greece, the Eastern Mediterranean area, and the Roman world [1]. Among the most famous Asclepieia were those located in Epidaurus, the island of Kos, Athens, Corinth, and Pergamon. These temples were often located in secluded and peaceful natural environments [2]. Today these monuments, apart from being recognized as masterpieces of ancient Greek art, are also standing proof of the practice of medicine in antiquity. They illustrate the medical evolution from the time when it was believed that healing depended on God to the time when it developed into science-based on systematic knowledge through accumulative experience [1, 2].

People seeking healing made pilgrimages to Asclepieia, and pursued a traditional, faith-based cure through worship, sacrifices, and the dedication of votive objects to Apollo, Artemis, Asclepius, Hygeia, and other health Gods, as well as medical and surgical treatment; therefore early forerunners of "medical tourism" [2]. On arrival, pilgrims practiced certain preliminary procedures, including catharsis, exercise, massage, and fasting followed by specific medical or surgical treatment, or natural remedies, depending on their health problem. These procedures, however, were performed in a mist of mystery and the supernatural with the patients resting in the "abaton" or "enkoimeterion", under a hypnotic state [2, 3]. Patients spent the night in one of the sanctuary's sacred buildings (abaton). Through the guidance of priests with rituals of purification and "incubation" (enko*imesis:* the sleep that ideally led to the miraculous healing), patients waited for the God to enter their dreams, the essential element for healing [2, 3]. Later, with the increasing emphasis on the real-world medicine, Asclepieia began employing physicians who could supplement their priests' spiritual/mystical curatives with applications of medicinal treatments [4]. Asclepieia flourished in Roman times and particularly in the 2nd century AD, when the Roman Emperor Antonine financed the refurbishment of old buildings and the construction of new ones. During this period, the ancient Greek traveler Pausanias visited, admired, and described in detail the Asclepieion of Epidaurus and its monuments [5]. The discovery of inscriptions heralding cures, in combination with the testimony of patients themselves have shown evidence of treatment for a wide variety of illnesses; e.g. the "Sacred Tales" of Aelius Aristides in the 2nd century AD who described his dream-state encounters with Asclepius during a stay at the Asclepieion of Pergamon [6].

Ancient inscriptions with the patients' histories, which were described by Pausanias, included information about other methods of treatment such as the prescriptions of the medicine used internally or externally in every case, and their effectiveness. A wide range of pathologies was described such as headaches, pregnancy difficulties, arthritis, blindness, paralysis, wounds, and abscesses, and for every pathology, there was a different, unique treatment; however, every patient was treated with "*enkoimesis*" [7].

Evidence about other activities performed by visitors such as performative rituals, and spaces is based on (i) the archaeological data, providing information for the construction of theatrical structures and the monumentalization of processional routes; (ii) the epigraphic sources, including hymns, paeans, healing tales, sacred laws, and dedications; (iii) the literary sources which, in the 2nd and 3rd centuries AD, give particularly abundant accounts of festivals, myths, and rituals practiced in ancient Greece [5].

The most typical traditional ritual in honor of Asclepios was the sleep that ideally led to the miraculous healing "iamata". The structure of the "iamata" at Asclepieia reflects societal structures during the 4thcentury BC, where medical systems including therapy, based on a scientific study, and divine medicine characterized by empiricism and, sometimes, deriving from magic coexist [8]. Psychedelic medicine was also part of the ancient practices of Asclepian healing [9]. Poetic and musical performances (e.g. hymns and paeans), were well attested in the sanctuaries of Asclepios. Ancient Greeks knew the therapeutic value of music, and Pythagoras developed the theory of purification of the soul through music [10,11]. The prophylactic, as well as the therapeutic value of exercise and other wellness activities (e.g. baths and massage) performed in Asclepieia, dates back to the ancient Greeks. Hippocrates and Galen were the first to point this out through observation [6].

As shown by Hippocrates, Aristotle, and the other Asclepiads'work, health perception was characterized by the philosophical and ideological principles of a human-centered approach, which are also characteristics of the Greek culture [7]. Archaeological evidence shows that Asclepieia offered in antiquity what we nowadays call holistic healthcare. Therefore, what has recently emerged in modern healthcare design, appears to have been a well-established practice in Asclepieia [2]. The careful selection of the location of the Asclepieia, which was usually an idyllic site, with lush vegetation, pleasant and relaxing views, abundant running water, and even thermal springs, provided an idyllic site for a holistic approach to physical, psychological, and emotional healthcare needs of patients [2]. An example is the sanctuary of Epidaurus in Peloponnese which was situated in a valley abundant in springs, with facilities extending within the forest, described by Pausanias as "the sacred grove", and with a spring located near its entrance for the freshwater supply [12]. The Asclepieion of Kos was also located on a three-level slope in a forest, specifically in the middle of a cypress grove, with a magnificent view, overlooking the sea [2].

Further points of interest were the type and nature as well as the structure and the arrangement of the

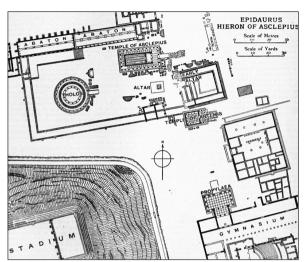


Figure 1 - Sanctuary of Asclepios, Epidaurus, Greece. Source: Warwick. Classics and Ancient History. Retrieved from: https://warwick.ac.uk/fac/arts/classics/ intranets/students/modules/greekreligion/database/clumcc/. Last accessed October 2, 2022.

buildings surrounding the Asclepieia (Figure 1). Apart from the sacred buildings for worship and for health care, including the temple, the God's statue, the altar and the *enkoimeterion*, and medical facilities, the shrine was surrounded by other facilities for patients' entertainment and wellness, and physical exercise including the Theatre, the Odeion, the Stadium, the Hippodrome, the Gymnasium, and the Palaestra [5]. The large dining and symposium halls were equally important where the patients could dine, consuming the meat of the sacrifices offered to God [5].

Asclepieia were destinations of pilgrimage and treatment, the forerunner of "medical tourism". Moreover, Asclepieia had an important impact on the establishment of the foundations of medicine. They established the first step of human knowledge, including surgery and pharmacology, which gave birth to rational medicine. Holistic healthcare, a major issue in modern healthcare design, appears to have been a well-established practice in Asclepieia. With Hippocrates and his research, the circle of Asclepieia ended, and the era of the organized medical schools with theories and experiments on every aspect of medicine began [4].

Conflicts of interest

All authors have nothing to declare.

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