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HISTORY AND HUMANITIES IN DERMATOLOGY

[Translated article] Medical Practice, Urban Legends, Myths and Folklore Regarding Dermatology in Ancient Greek History



Práctica médica, leyendas urbanas, mitos y folklore relativos a la Dermatología en la Historia antigua de Grecia

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Introduction

Within Greece's rich and longstanding medical tradition, originating from the years of Hippocrates and Galen, the history of dermatology is characterized by its long-term existence, both ancient and contemporary. The obvious exteriority of skin diseases is one of the reasons why it drew medical attention early in history. Indeed, although dermatology did not become a medical subspecialty until the end of the 18th century, many concepts regarding dermatological diseases and its therapeutics are traced back to antiquity.

In Ancient Greece, cutaneous diseases were described as manifestations of humoral pathology, based on the theory of the four 'fluids' (phlegm, yellow bile, black bile and

blood) that stemmed from the theory of the four elements (earth, water, air and fire) and their four corresponding qualities (dry, humidity, cold and heat). These were in turn based on the theories of the philosophy of nature prevalent at the times.

The theory of the four humors was originally postulated by Hippocrates of Kos (460–370 BC), who is regarded as the founder of medical sciences, and dominated medicine for more than two thousand years.^{1,2}

Asclepius

Ancient Greek god religion and mythology can be found on the basement of the evolution of Dermatology. Asclepius was the Ancient Greek semi-god of medicine, son of divine Apollo and married to the Greek goddess of health, Hygieia (Health) (Fig. 1). Asclepius met a tragic end when he was killed by a thunderbolt thrown by Zeus. This was because the father of the gods saw Asclepius and his medical skills as a threat to the eternal division between humanity and the gods, espe-

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Figure 1 Hygeia, as depicted by the Austrian symbolist painter Gustav Klimt.

cially following rumors that Asclepius' healing powers were so formidable that he could even raise the dead.^{3,4}

For hundreds of years, the cult of Asclepius maintained several sanctuaries at Thessaly, Epidaurus, Kos, Athens, Corinth, Pergamon and many other places across Greece called *Asclepieions*. The *Asclepieions* were the first primitive health care infrastructures in Europe and offered their services to patients from all over the Greece from the beginning of sixth century B.C. till the advent of Christianity in Greece in the fourth century AD. There, the descendants of Asclepius, known as *Therapeutae of Asclepius* or *Asclepiads* continued the practice of medicine and healing, and guided the patients through rituals of purification and "incubation" (*enkoimesis*). Saved inscriptions from these sanctuaries give accounts of many patients treated there for cutaneous diseases.^{4,5}

The most famous sanctuary was the *Asclepieion* at Epidaurus which became an important center of healing. There, live non-venomous snakes slithered about freely in the visitors' quarters as the healers performed their rituals. This species is known today as the Aesculapian Snake (*Zamenis longissimus*) and was often used as part of the healing ceremonies. The rod of Asclepius, a snake-entwined staff, remains a symbol of medicine today. Additionally, sacred dogs roamed the sanctuary and visitors with flesh wounds would allow them to lick their wounds as it was believed their saliva had curative powers.^{2,4,5}

A plethora of votive offerings that vary in type and frequency can be found at the sanctuaries. Appendages and limbs as well as genitalia, mostly penises, have been found in various *Asclepieions*, but mostly in the city of Corinth (Fig. 2). Corinth was well known in antiquity as a place of prostitution, consequently the multitude of diseased penises is thought to represent venereal diseases. It may well be



Figure 2 Clay model of a left hand bearing a nodule. Dating: Late 5th–2nd half of 4th century BC, *Asclepieion* of Corinth. The votive depicts a nodule overlying the distal part of the fourth metacarpal of the left hand. The red paint that used to cover it may indicate that the lesion represented an injury/bite, an abscess, or even a cutaneous malignancy.

that the *Asclepieion* at Ancient Corinth served as a healing place for sexually transmitted diseases, even those whose provenance was the city itself.

Ancient Greek dermatological literature

Ancient Greek medical literature, consisting mainly of Hippocratic and Galen (130–200 AD) writings as well as those of Pedanius Dioscorides (40–90 AD), Erasistratus (305–250 BC), and Herophilus of Chalcedon (330–255 BC), frequently describes certain cutaneous disorders. The Greeks, who pioneered the field of medicine, divided cutaneous disorders into the categories of psora (scabies), lepra and leichen. Alopecia, erysipelas, impetigo, vitiligo (alpos), melasma, pruritus, etc., are also recognizable on account of their striking characteristics.

Hippocrates (460–370 BC), the "Father of Medicine," was an *Asclepiad* of the temple on Cos, an island in the Dodecanese on the Aegean Sea. This is the reason why Asclepius was even featured in the original text of the Hippocratic Oath:

"I swear by Apollo the Physician and by Asclepius and by Hygieia and Panacea and by all the gods..."

The Hippocratic Collection, also known as the *Corpus Hippocraticum*, is a group of medical books edited at Alexandria about a hundred years after his death. In this collection of sixty books, Hippocrates describes how medicine owes to incorporate the art of clinical observation and use it to make prognosis, as in the case of Hippocratic facies indicating impending death. The *Corpus Hippocraticum* also describes skin anatomy and physiology, dermatological conditions, and gives great attention to the relation between the glands and the skin in health and disease.^{6,7}

For example, Hippocrates described an association between the acute onset of guttate psoriasis and a throat infection. Among others, he describes clubbed fingers and their association with underlying chronic pulmonary and cardiac disease, pruritus in cases of jaundice, and notes that urticaria associated with diarrhea and swollen joints

may indicate a worm infestation. He also recorded genital and acral ulcers, and comments on the role of perspiration in maintaining homeostasis.^{6–8} The list of cutaneous afflictions recorded in Hippocrates' works spans the full range of modern skin diseases, including nail deformities, dermatitis, alopecia, acne, psoriasis, lichen planus, skin cancers, pigmentation disturbances, cutaneous microbial, viral, fungal and parasitic infections, ulcers, sexually transmitted diseases, burns, various vesicular, pustular and fissured eruptions, bullous and exfoliative diseases, and varicose veins. The earliest classification of cutaneous diseases can also be attributed to Hippocrates, since he was the first to propagate the philosophical idea of "etiological classification" by dividing disorders into local and constitutional.^{7,8}

Hippocrates believed that physicians should do the opposite of what was inflicted by the disease, such as applying a drying agent to the moist area and applying an emollient to a dry area. He introduced a variety of topical treatments using a multitude of natural ingredients such as herbs, honey, spring water, goose or pig fat, tar, and white wine and used curettage and cautery for excision of superficial cutaneous tumors.^{6–8}

Aelius Galenus or Claudius Galenus (130–201 AD) was a Greek physician and philosopher, born in the ancient Greek city of Pergamon. Arguably the most accomplished of all medical researchers of antiquity, Galen was the first to identify the skin as the organ of touch, focusing on the special features of the thick skin of the palms to allow full contact with the objects it grasps. The Antonine Plague, an ancient pandemic of the Roman Empire (165 t-180 AD), was also known as the Plague of Galen, since he was the first to describe the blistering rash that covered the victim's entire body. He was also the first to write a book entirely on cutaneous disorders and classified skin diseases into those of the hairy part of the body and those of the non-hairy parts. This classification system influenced and remained the backbone of modern Dermatology till about mid-18th century.^{8,9}

Dermatology in ancient Greek mythology

Dermatologic conditions as results from insults to Gods are present in a number of ancient Greek myths. The first figure in Ancient Greek mythology connected with Dermatology is the healer of Gods "Παίων" (Paion). In Homeric epic poems Paion is presented as a healing god who treated the wounds of Mars and Hades using a combination of various herbs, ointments and other remedies. During the classic years, the word Paion identified with Asclepius, or even god Apollo, and his name became a synonym for the dermatologic healer.⁴

Several places in Ancient Greece, especially Peloponnese, claimed to be the site of the cure of cutaneous disorders, including the healing springs of the Anigrad nymphs. Anigrades, the nymphs of the river Anigrus in the ancient country of Triphyllia were believed to live in a grotto sacred to them, which was visited by persons afflicted with cutaneous diseases. In a Hesiodic myth, the daughters of King Proitos of Tiryns, the Proitids, were punished for their scorn of Zeus's wife, Hera by a disfigurement caused by a loathsome skin disease. They believed they became cows and were afflicted by vitiligo (αλφός) and a form of dermatosis (κνύος) which caused loss of hair. Melampus, a legendary

soothsayer and healer, cured the girls by making them have a ritual bath at the river Anigrus and was rewarded with receiving one of the princesses in marriage.¹⁰

As a result, the water reputedly cured skin diseases including leprosy, elephantiasis, and scabies. The patients were cured by prayers and sacrifices to the nymphs, and by bathing in the river. It is said, also, that the Alpheios (Alpheus) was so named from its being a cure for vitiligo (Αλφός- stands for dull-white in Ancient Greek language, albus in Latin).

In the mythical accounts, Chiron who was the original and archetypal Greek Centaur was also believed to have visited the springs in order to wash off the poison he got from Hydra. The emission of an offensive odor from the waters was attributed to this poison; nevertheless today it is known that is caused by increased concentrations of sulphur.¹⁰

"There is in Samicum a cave not far from this river and called the Cave of the Anigrad Nymphs. Whoever enters it suffering from alphas or leuke first has to pray to the nymphs and to promise some sacrifice or other, after which he wipes the unhealthy parts of his body. Then, swimming through the river, he leaves his old uncleanness in its water, coming up sound and of one color."

"Pausanias, Description on Greece, 5.5 and 5.6"

Concluding remarks

The Ancient Greek historical-mythical path followed in this study reveals the inauguration of the scientific era of dermatology by Hippocrates, as depicted through the Hippocratic Corpus. In the pre-Hippocratic and pre-Galenic era, the science of Dermatology mingled between Myth and history. Through the use of symbols, mythology set the grounds for the systematic investigation and explanation of several subjects, such as human nature and disease, including cutaneous afflictions. However, Ancient Greek medicine was the first to attribute the skin with a purely instrumental function. Despite the fact that Hippocrates's unique contribution to dermatology was overshadowed by his status as the father of medicine and the oath ascribed to him, we still preserve – to some extent – the same dermatological terminology that Ancient Greek medicine had adopted and divulged. On the whole, it is undeniable that via Ancient Greek medicine, many aspects of Dermatology were expanded, modified, improved, and ultimately carried forward to contemporary occidental medicine.

Conflict of interest

The authors declare that they have no conflict of interest.

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