

I have been very much interested in the statistical aspect. Last year Dr. Glover gave statistics at a Laryngological meeting which impressed me very much, and I read the paper with great care.

With regard to the relationship to otorrhœa, the conclusions Dr. Glover arrived at were at variance with my own experience and close observation for two years. He quoted Dr. Payton as having studied the incidence of otitis and found it was increased by the removal of adenoids.

(At this period of the evening the time limit for remarks had been reduced and Mr. O'Malley was not permitted to conclude.)

Mr. Herbert Tilley and Dr. Dan McKenzie here replied.

THE CHAIRMAN: I first ask if the majority of those present at this Meeting wish to vote at all. I read in "The Times" recently that Lord Banbury said that he had spent most of his life in stimulating discussion and preventing legislation, a very wise remark. The chairman of a meeting is supposed to be without bias, that is, a good chairman is. But we none of us can get rid of bias, and I can, personally, only think that a vote on a subject like this is most unscientific. I do not know whether it is a wave of democracy, which, fortunately, is rapidly dying out, but I can speak freely on the subject as I began life as an anarchist, and I am finishing as a quietist; and I ask myself what the vote would have been if Harvey, or Jenner, or Lister had had their researches voted on. I do not know that there has ever been a vote on appendicitis, which was created since my student days, for when I was a student I never saw such a case operated upon. And yet the question of appendicitis has helped itself to get itself as settled as anything can get settled in this world, without votes. Therefore, from the chair, I first ask for a show of hands as to whether, having heard this most interesting and stimulating debate—I feel that these debates make us recast our views—you wish the resolutions put to the meeting.

It was unanimously agreed that no vote be taken.

On the proposition of Lord Dawson of Penn, a hearty vote of thanks was accorded to the Chairman.

THE HIPPOCRATIC TRADITION.

By MATTHEW B. RAY, D.S.O., M.D. (Edin.)

Part I.—Ancient Greek Medicine.

Who was this great man, Hippocrates, this outstanding personality who well over twenty three centuries ago kindled a torch whose light still shines before men?

In order to understand how the great tradition associated with his name arose the imagination must be carried back to a time when the medical art was entirely in the hands of the priest and magician. It was only concerned with the propitiation of those deities who sent disease and death upon mankind in anger and revenge for impiety, vows unfulfilled and sacrifices unoffered.

These ancient divinities were evolved from the religious faith and practices of immigrant races from the North who personified potencies for good or evil as gods or dæmons. In process of time, the Greeks, aided by the imagination of their

poets, the speculation of their philosophers and the artistry of their sculptors, transformed those early deities into a higher order of beings, super-human, of superior strength, man-like in appearance, yet idealised and glorified.

These comparatively simple concepts sufficed for many centuries but with the development of new ideas there came a great diversity and broadening of religious thought. The ritual became more and more elaborated as the æsthetic sense grew and interpreted the gods before the eyes of the populace in terms of majesty and ideal beauty. Religion for the Greeks was a matter of observance and ritual. There was practically no moral restraint on the conscience as the gods were entirely unmoral. To neglect or deny the gods was the only sin.

The divinities were of two classes, those dwelling in the mystic heights of Olympos and those of the underworld; some of those personalities inspired fear and dread, others again were beneficent and had functions essential to the life and happiness of mankind. The great Death-God, Hades, and his consort Persephone ruled in this underworld. Here the broken oath was avenged and the punishment of sinners took place after death. Among the benign functions of these nether deities were the dispensing of the hidden wealth of the earth, the giving of advice to mankind by prophesy and dreams as well as coming to their assistance in misfortune or suffering. Associated with the underworld were certain mysteries which were celebrated by elaborate ritual and only referred to by contemporary writers in very vague terms.

The Cult of Asklepios.

Asklepios, the personification of the mystic powers of divinity over the healing forces of the unseen world, is traditionally supposed to have appeared on the earth about the thirteenth century B.C. According to legend, he obtained his knowledge of the medical art from Cheiron the mystic centaur, famed for his wisdom and acquaintance with medicinal properties of plants and who lived on the slope of Mount Pelion in Thessaly. Asklepios, while ranking first as a hero, was also an "earth spirit" and belonged to the under-world. The serpent was his symbol and he acquired an oracle. Later, he had many aspects of a solar deity which were obtained after his apotheosis.

Asklepieia. In the Grecian Archipelago, there were upwards of three hundred temples devoted to his worship. These temples, known as "Asklepieia", were usually placed outside the various towns and cities and their sites were selected with a view to purity of air and water as well as their general attractiveness. The water at several of these sanctuaries was reputed to be of distinct medicinal value and it is of interest to note that in many respects these temples corresponded to the modern conception of a spa.

The best known shrines were those at Trikke (the most ancient), Epidauros, Kos, Delphi and Pergamus.

The actual temples themselves were never imposing by their size but were sufficiently large to contain the statue of the deity and the dedicated gifts of votaries. All ritual ceremonies were held in the open air, within the sacred enclosure or "Hieron." The sanctuaries were holy and only the initiated were permitted to enter. The gods were represented by painting and sculpture. Asklepios was usually shown as middle-aged with a beard, standing and holding a knotted staff with a serpent coiled about it. This is no doubt the origin of the staff and serpent which is used all over the world as the medical insignum. Telephoros, typifying convalescence and represented as a boy or dwarf, was often placed, standing, beside the erect statue of the god.

The *Serpent* was a familiar animal in Greek religion and mythology and was looked upon as sacred, mystic and the possessor of magic powers connected with prophecy, disease and healing. It was also a symbol of the underworld and often regarded as the visible incarnation of the deities, demi-gods and heroes. The oracles were frequently delivered by a snake. A particular kind was held in veneration, *viz.*:—the “*coluber longissimus vel Aesculapius*” which inhabits the hills and valleys of Greece and grows to a length of about five feet. It is perfectly harmless and non-venomous, feeding chiefly on mice, easily tamed and becomes quite friendly. Its colour varies from pale golden brown to black.

The Temple of Epidauros. Among the many temples that were dedicated to Asklepios in memory of his reputation and deeds of healing, probably none was more magnificent than that of Epidauros. The building was situated in a sacred enclosure or “*hieron*.” The central shrine or temple of Asklepios was built of porous stone, stuccoed and tinted in tones of red and blue with an elaborate and beautiful ivory door at the entrance. Inside was the famous chryselephantine statue of Asklepios. The flesh was of ivory and the rest, gold enamelled in colours. A large high altar was placed in front of the shrine. The rotunda or place of sacrifice known as the *thymele* was placed south west of the main temple. This was the “*chef d’œuvre*” of the hieron and famous throughout antiquity and believed to be the most beautiful circular building erected by the Greeks. Its foundations were in six concentric rings with openings but each passage had a wall across it converting it into a labyrinth. The purpose of this part of the building is uncertain but it is believed to have been the dwelling place of the sacred serpents, which were bred there and where sacrifices were made to them. Within the hieron were several smaller temples dedicated to other Grecian deities—Artemis, Aphrodite and Themis.

There was also a large square building near the temple with an open court. From the presence of bones and ashes it is supposed to have been used for sacrifice and sacrificial banquets. Other buildings included two gymnasia and a bathing establishment built over the sacred spring. The dormitory or “*abaton*” was in reality a huge ward, open to the south. It was 246 feet long and 31 broad, and was divided about the middle into two “wards”, one for men and the other for women. Each abaton was furnished with tables, lamps, altars, and about 120 pallets. Outside the hieron was a stadium and a theatre remarkable for its perfect acoustic properties.

On the top of Mount Kynorton, overlooking the hieron, stood the temple of Apollo from which height the supreme divine healer looked down upon his son Asklepios. The grounds, adorned by statues of friendly deities, were beautifully laid out with a large grove and shady walks with circular seats, some of which are still in existence. Special efforts were made to give an atmosphere of hope and cheerfulness which was then of special importance as it is in the modern spa of to-day.

The Asklepieion at Kos deserves special mention because it was the cradle of medical science in Europe. The buildings were arranged in three terraces on the northern slope of the mountain. The temple of the god stood on the highest, the sanctuaries, shrine and sacred spring occupied the next, while on the lowest were the *propylia*, porticoed buildings with many rooms—no doubt used for consultations and treatment.

The Ritual of the Cure. On entering the hieron, all were obliged to undergo a ceremonial purification, often consisting of a bath in the sacred spring, possibly

with fumigation. Oblations had then to be made to the god, the amount depending on the means of the suppliant. The serpents, as the incarnation or embodiment of the god, were fed and sacrificed to. Indeed, it was impossible to approach the divine image without first diverting their attention by food, such as honey cakes. Sacrifices were accompanied by music and fervent prayers for a revelation. The priests chanted the prayers while the persons making the sacrifice, repeated them in a loud voice.

A rigorous diet or fasting was commonly ordered as a preparation for treatment. The patients were conducted through the hieron by attendants who related the legends of the cult and explained the remarkable cures recorded on the stelae and tablets fixed to the walls.

Among the many accounts of the cures effected at the temple may be mentioned the case of Heiraios of Mytlyene who was bald. While asleep in the "abaton" he dreamed that the god applied an ointment to his head. When he awoke, he had a thick growth of hair. Unfortunately, history is silent as to the nature of this ointment. In another instance a man's foot was badly bitten by a wild beast and promptly cured after the wound had been licked by one of the sacred serpents. Proklos, the philosopher, who was suffering from arthritis, covered the part with a cloth. A sparrow sacred to Asklepios plucked away the cloth and the disease with it.

The tablet of Apellas of Idria, reads as follows:—

"O blessed Asklepios, God of Healing, it is thanks to thy skill that Diaphantes, relieved of his incurable and horrible gout, no longer moves like a crab, no longer will walk upon thorns, but has a sound foot as thou hast decreed."

There were two methods of religious healing; one, the direct method, where the healing powers of the god were transmitted by his simple presence or by the laying on of hands, through some sacred relic or by the agency of the sacred serpents or dogs; the other, the indirect, was accomplished through dreams and visions in which the god appeared to the patient in a dream and prescribed remedies such as certain herbs, fasts, diets, baths, etc. There was a somewhat elaborate ritual associated with the latter method often known as "incubation" to which attention must be drawn.

Incubation. With the approach of evening, the patient was prepared for sleep in the "abaton" or dormitory. He was clothed in white and allotted a pallet with bedding. If the patient was too ill, a substitute could be supplied. After prayers, lights were extinguished, silence was enjoined and the patients commanded to go to sleep. At some period during the night, the priest returned with a retinue, some of whom were dressed in the costume of the god and others possibly as Hygieia, Panakeia, etc., accompanied by the sacred serpents and dogs. They passed among the sleeping patients, and made applications of ointments to diseased parts or coaxed the serpents to creep over them or induced the dogs to lick them. Occasionally the priest, in the guise of a god, would speak to a patient.

The experiences of the night, acting on patients rendered highly susceptible, and the assumed appearance of the deity in the form of a serpent were interpreted as a divine visitation and many marvellous cures were wrought in this manner. In the morning, the dreams and visions related by the patients were interpreted by the priests who gave the necessary directions for any treatment that was to be carried out.

If the invalid died it was through lack of confidence or want of belief. Dying patients were cast out and left to shift for themselves. The god had rejected them and no aid could be forthcoming. When the suppliant was healed, a thank-offering or payment had to be made. Often these offerings were in the form of a silver or terra-cotta model of the part that had been healed. The votive offerings thus made were preserved in the temple.

The Public Health. Hygieia, the Greek goddess, was not a healing deity, but the personification of the idea of Health. She was generally regarded as the wife or daughter of Asklepios, and said to have come to Athens with him from Epidauros in 420 B.C. She is usually shown on reliefs and statues as being in attendance on the god as at Athens, or as feeding and caring for the sacred serpents. The public recognized in Asklepios and Hygieia, ability to protect the health of the community as well as serving the individual. As neglect of the gods might result in disasters such as pestilence or famine, the State, in duty bound, supervised and controlled the rites of prayer and sacrifice. The Council at Athens is said to have brought Asklepios and Hygieia to Athens on account of a plague which was instantly stopped on their arrival. A sacred serpent representing Asklepios was sent from Epidauros to stop the pestilence at Rome. While the vessel was sailing up the Tiber, the serpent went ashore and was lost sight of among the rushes of the *Insula Sacra*. As the plague stopped almost immediately, the Romans built the great temple of Aesculapius at that spot.

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Two lectures by DR. RICHARD CATON on the Temples and Ritual of Asklepios at Epidauros and Athens.

[*To be continued.*]

THE COMMON ANÆMIAS*

(With special reference to certain modern conceptions).

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Diagnosis of Anæmia.

Anæmia may be defined as lack of hæmoglobin or of red blood corpuscles and usually of both. The symptoms of anæmia, such as breathlessness on exertion, giddiness and a tendency to swelling of the ankles, are by no means pathognomonic as they are present in other conditions such as cardiac failure, toxæmia, etc., but when they are present anæmia should always be suspected. When anæmia is severe the characteristic pallor of the patient is usually a reliable guide, but minor degrees of anæmia often escape detection and pallor of course does not always indicate anæmia. It is true that pallor of the mucous membranes is a more trustworthy sign than is pallor of the skin, because these structures are less exposed to the varying influences which affect the skin. It must also be remembered that the colour of the skin or other structure depends, not only on the amount of hæmoglobin in the blood, but also on the amount of blood in the local vessels and, therefore, on the number of these vessels dilated and the degree

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