CHAPTER ONE

HIPPOCRATES AND EARLY GREEK MEDICAL PRACTICE

Hippocrates is generally acknowledged to be the "Father of Medicine." He is usually portrayed in pictures and sculptures as a grandfatherly, bald man with a serious expression and a small well-trimmed beard. Much about him is unknown and much is myth.

Many schoolchildren have read Homer, the famous Greek poet, and his *Iliad* and *Odyssey*, which relate the tales of the ancient Greek gods. In the period after Homer, approximately 800–400 BCE, disease and illness were attributed to the gods, mostly a minor deity, Asclepius. Shrines to this god were erected; priests offered prayers at these shrines for restoration of health.

Around 400 BCE, a medical culture arose on the island of Cos, in the Aegean Sea within the Greek archipelago, that greatly departed from the supernaturally based precepts of the Aesculapian shrines. We know about this culture from a series of books, often dubbed the Hippocratic corpus [1–4]. The corpus of writings consisted of about 70 variegated texts written in the Ionic (Greek, meaning from Ionia) dialect using a wide variety of styles [3]. These are often collected as *The Genuine Works of Hippocrates* [5], *The Aphorisms of Hippocrates* [6], and *The Book of Prognostics* [7]. Although all are often attributed to one man, Hippocrates, much was certainly contributed by others. Hippocrates and his medical colleagues lived in a time of great intellectual activity and ferment in Greece. Hippocrates's life spanned those of Sophocles and Plato and intersected with Aristotle's. He was a contemporary of the

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statesmen Pericles and Cimon; of the playwrights Aeschylus, Sophocles, Euripides, and Aristophanes; and of the historians Herodotus and Thucydides [4].

Hippocrates and his followers taught that nature and natural causes explained health, illness, and diseases. Deviations from health were not the result of the action of gods. Natural causes could be discovered by careful observation. The task was difficult as emphasized in the most cited aphorism, "Life is short, the Art is long, opportunity fleeting, experience delusive, judgement difficult" [6]. The modus operandi of a physician was to observe the patient at the bedside. Hippocrates observed the patient carefully, wrote down a description of the symptoms, and taught his disciples at the bedside. Most importantly, the physician followed the course of the illness. A major focus was prognosis, for example, "in every disease it is a good sign when the patient's intellect is sound" [6]. Hippocrates emphasized professionalism. Physicians should interact with patients in a highly responsible and moral professional manner. We still revere this aspect by having students recite the Hippocratic oath at the beginning of medical school or when donning "white coats."

The writings of Hippocrates probably contain the first clear descriptions of stroke, and the first use of the term apoplexy [8,9]. Although "apoplexy" is not defined, its use within cases describes a very sudden loss of neurological function [9]. Hippocrates and his followers emphasized clinical observation and prognostic indicators. Hippocrates was a keen observer and urged careful observation and recording of phenomenology. The corpus contains many clear descriptions of cases. Hippocrates and his followers were mostly interested in predicting for the patient and family the outcome of an illness. In his aphorisms on apoplexy, Hippocrates wrote that apoplexy was most common between 40 and 60 years of age, and attacks of numbness might reflect "impending apoplexy" [8,10]: "To get over a strong attack of apoplexy is impossible, over a weak one, not easy." He astutely noted that "when persons in good health are suddenly seized with pains in the head and straightaway are laid down speechless and breathe with stertor, they die in seven days when fever comes on" [8,10]. This description of subarachnoid hemorrhage shows the Hippocratic emphasis on observation and prognosis. One of his descriptions was probably the first clinical description of aphasia. "A woman who lived on the sea-front was seized with a fever while in the third month of pregnancy.... On the third day, pain in the head, neck, and around the right clavicle. Very shortly, the tongue became unable to articulate and the right arm was paralyzed following a convulsion.... Her speech was delirious.... Fourth day speech was indistinct" [8].

In a case that described a wound to one side of the head, Hippocrates noted that paralysis affected the opposite side of the body [1]. Hippocrates observed

that there were many blood vessels that were connected to the brain, most of which were thin, but two (the carotid arteries) were thick. The Greeks in the time of Hippocrates knew that interruption of these blood vessels could cause loss of consciousness, so they called these thick arteries *carotid* from the Greek word *karos* meaning deep sleep.

Hippocrates and his followers left a blueprint on how to practice medicine and how to interact with patients. That is their main legacy.

NOTES AND REFERENCES

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