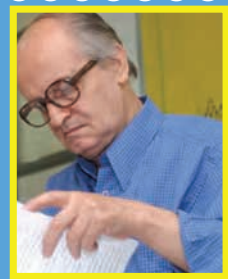


پزشکی پیش از تاریخ و قدیم

(قسمت دوم)

ترجمه و نگارش: استاد ناصر پویان



Tendency in medicine. Humans throughout their lengthy life even from the earliest times have attempted to cure illness and restore health*

Healing remedies have taken a huge variety of forms, from preparations using plants, animals, and minerals, to removal of infected or diseased parts, to prayers or incantations for spirits or gods restore health. Humans indeed with their inquiring minds and deep curiosity, from the beginning have tried to mend broken bones, cool fevers and cure sores for more than 12000 years, since they could first be described as prehistoric man.

The industry of healing has two leading branches, one of healing by drugs and nursing, carried out by physicians, and the second of healing by knife carried out by surgeons. Physicians and surgeons are very old and both have strong link with religion².

Spirits and healing. In the earliest times, since primitive man had no real concept of disease, he considered illness and death to be some forms of punishment wished upon them by supernatural forces. In many religions, the gods are healers. For instance Christians believe that Jesus Christ was a healer; traditional Hindu Ayurvedic medicine is believed to have begun with Lord Brahma, creator – god of the Hindu Pantheon, about 8000 years ago; Egyption doctors were priests and healing gods were worshipped by Greeks and Romans. Religions sometimes encouraged research into medicine, whilst in others it forbade medical studies. There has been always a link between magic and medicine, and in superstitious ages the connection between healing and witchcraft has not been always clear. Indeed, there are communities in Africa, Australia and the Caribbean which still have witch – doctors today³.

Before the first known civilization, primitive man evolved theories and learned certain facts

that formed the basis of medicine. Eating certain foods caused stomach – aches which were believed to be caused by some evil spirit or god. Afeter many stomach – aches from the same foods, he realized that the evil spirit resided in those foods, and they were to be avoided. Form bitter experience, knowledge was amassed about the ill effects of poisonous fruits and berries, dead and decayed animal matter, poison ivy and other materials. It was natural for them to extend these ideas of supernatural causes to other areas of disease such as earache, sorethroat, and appendicitis. As a means of ridding the body of these evil spirits, man brewed and drank foul tasting concoctions in the belief that if they were unpleasant, the spirit would flee. Some of these mixtures acted as purgatives, some induced vomiting and other were actually of value against the basic disease.

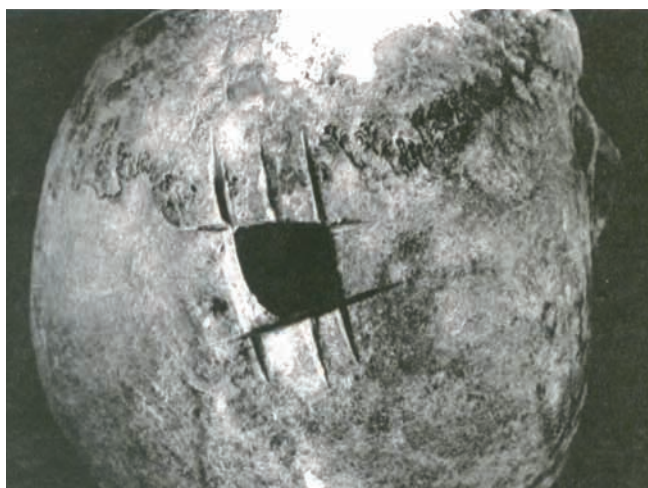
Gradully a class of men known as medicine men, capitilized on these religious – superstitious beliefs. They claimed skill in the art of healing and “drove - out” evil spirits by dances and incantations. Many of present traditional folk remedies are based on superstition and magical phenomena, forming a link to the supernatural disease theories of earliest times. Over the centuries a large number of gods were named almost one for each disease. With this highly mystical and supernatural attitude toward illness, healing of the sick became more and more a function of the religious leaders. The ancient of trephining, a type of surgery that was practiced in prehistoric times, is thought to have been performed by priests and religious leaders. This procedure involved cutting a portion of bone from the skull, leaving a hole from the scalp to the outside of the brain. The operation, performed with a flint scraper, probably to let out “evil spirit,”



was used in diseases such as epilepsy and migraine, or insanity. (In many primitive societies the epileptic was regarded as being gifted with supernatural powers.) The fact that people survived these operations is evidenced by the well – healed bone edges found in skulls performed by primitive peoples in some parts of world ⁴

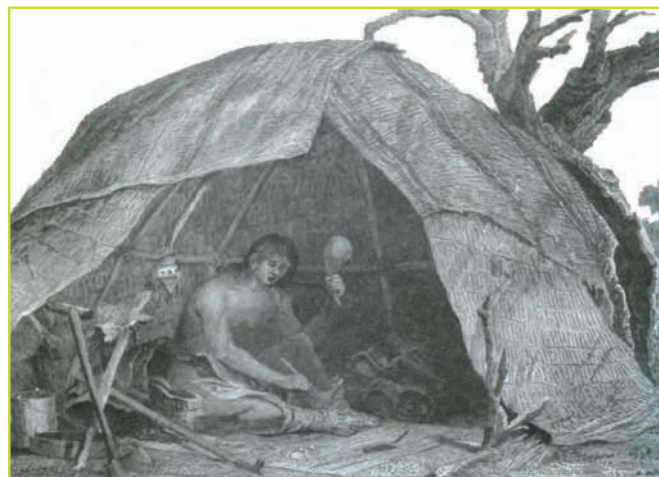
Holes in the head. The earliest trephined skulls from prehistory (Stone Age) are about 20000 years old, and their holes were cut not by a drill but with a sharp – edged flint scraper or knife, making a circular or rectangular groove, which became deeper and deeper until it passed right through the bone. In ancient Peru, republic on the Pacific coast of South America, people used knives of bronze obsidian, a black glassy rock. Peruvians sometimes covered the wound with a shell, a gourd, or even a piece of silver or gold.

Furthermore it is said that preserved skulls provide hard evidence of trephining, the ancient practice of cutting holes in the skull bone. This may have been intended to release from the brain or mind the evil spirits and demons believed to cause mental problems or illnesses such as migraine or epilepsy. In Europe trephining continued until the 16th century. Trephining also was practiced in North Africa, parts of Asia, New Zealand, some Pacific Islands, and South Africa.



Trephined skull found in excavations at the ancient Judean city of Lachish.

Spells and herbal remedies. Remote South American Indian tribes and Australian aborigines give us some clues about the ways in which early men cured wounds and illnesses. Their medicine today is still a mixture of the mystic and the practical, and each tribal group has a medicine man who has been taught the spells and herbal remedies. In Australia aborigines coat broken limbs with clay to help them set properly. They chew particular herbs to relieve stomach upsets and cover wounds with leaves to keep them clean. It is very likely that Stone Age people did much the same. Bronze Age and Iron Age peoples were probably more like North American Indians, with permanent winter and summer camps and medicine men with a fair amount of wisdom. The women also being particularly knowledgeable about medicinal herbs ⁵.



A medicine man prepares a spell in the privacy of his camp. He would have a sound knowledge of herbs and bones handed down during the period of his training, but he would not believe that they would work without his spells.

China with 5000 years documented medicine
Although medicine has been practiced from time immemorial, the Chinese were probably the first to document the science of medicine around 5000 years ago. The ancient Chinese medical text, “I Ching” (c. 2900 BC), was attributed to Emperor Fu Hsi. He developed a system representing all the yin – yang” combinations and which still extend. Shen Nung (born c. 2720 BC), another



Chinese Emperor, physician and reformer who experimented with plants and discovered their medicinal values. He originated acupuncture and the great herbal “Pen Tsoa”, which describes over 365 medicinal plants is also attributed to him. Another ancient Chinese physician, Huang Ti, the Yellow Emperor (born c. 2698 BC), who originated the “Nei Ching”, the oldest treatise of internal medicine, in which he gave the first description of asthma (referred as “noisy breathing”)



Fu Hsi upon whose works, classical Chinese medicine was based.

“ and included five forms of therapeutic care, spiritual care, pharmacology, diet, acupuncture, and treatment of respiratory diseases⁶. Chinese also treated diseases by burning small cones of combustible material on the

Title page of late edition of “Nei Ching” by Huang Ti, which summarized all the medical knowledge of the period in dialogue between the Yellow Emperor and his prime minister.

skin (moxibustion) and by inserting long metal needles into the body to correct imbalances of

humors, vapors (acupuncture). Indeed, Chinese described the taking of the pulse, long before the Greeks and knew how to immunize against smallpox as far back as the eleventh century AD⁷.



This an early Chinese diagram showing the acupuncture points along meridians of body which apply to treatment for various organs, often quite distant from the point. This technique has survived for more than 3000 years and is still widely practiced.

The first medical laws, Mesopotamia

The “Code of Hammurabi”, a collection of laws promulgated in early second millennium BC by Hammurabi, king of Babylonia (reigned 1728 – 1686 BC or 1792 – 1750BC), son and successor of Sin – muballit of the Amorite Dynasty. Most of the code is extant on a diorite monument, 8.2 ft. high, discovered at Susa (now Shush, Iran) in 1902, and now in the Louvre, Paris. The laws, arrange largely according to subject matter, deal with such topics as offences against the admin-



istration of justice and property, land tenure, trade and commerce, marriage, family, and inheritance, assault, regulations governing surgeons and builders, agriculture, wages, and slavery. This code also provides the first laws of physician's responsibilities and fees. Seventeen of them related to medicine including rewarding or punishing the physicians for the outcome of their treatments. For example, a physician who "opened an eye abscess of a nobleman and has caused the loss of the eye" had his hand cut off.

The treatise deals several stomach disorders and recommends various medical remedies. Healing was practiced by priests who learned treatment from thousands of inscribed clay tablets in the city's library of Ashurbanipal**, named after the Assyrian ruler (668 – 627 BC).

Conclusion. Humans are just one of millions of animals that have lived on earth for around

35000000 years. They belong to a group of animals called primates, which includes humans and monkeys. However, the way we behave is very different from all other types of animals. Although animals share several similarities with humans, but they are still very different from us in the way they look and behave. We human beings try to question why things like various diseases happen and look for ways to show how we become sick and how to treat it. This is why we are the only animals to have science and religion. We also have a complex culture, which means thinks like art, medicine and medication, music, clothes and customs. To a great extent they relied on magic to cure their ills, but had some practical knowledge of medicinal herbs, bones and anatomy, and were to perform operation on the skull. Their trepanning continues today – for brain surgery in the modern operating theatre, using precision electric – powered drills and saws. In all, both modern medicine and surgery follow prehistoric and ancient traditions and beliefs.

*. Some inclinations in medicine seems to be in – built for animals as well as humans. In fact, animals follow their instincts when ill – they lie down, drink, eat certain foods, and vomit. Gorillas in West Africa purposely eat several types of plants that are effective against intestinal worms, Joint pains, and other conditions.

.Steven Parker, Eyewitness Science, Dorling Kindersley Book, London, 1995, P. 6.

. Jennifer Cochrane, An Illustrated History of Medicine, P. 6.

. Jennifer Cochrane, An Illustrated History of Medicine, P.6.

. Encyclopedia International, vol. II, P.491.

. Jennifer Cochrane, An Illustrated History of Medicine, P 11

. Anton Sebastian, Dates in Medicine, PP. VI. and 1.

. Encyclopedia International, vol. 11, p. 491.

** . Three great libraries of the ancient world were the royal library of King Ashurbanipal at Nineveh (c. 625 BC), the great library of Alexandria, Egypt, established by the Ptolemies (c. 275 BC); and the library of Pergamum, established by Eumenes II (C. 165 BC). (Encyclopedia International.

