

MEDICINE AND SURGERY

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The earliest system of medicine that prevailed in Sri Lanka was *desiya chikitsa* which was handed down from generation to generation. Reputed prescriptions were jealously guarded secrets of a family. This secrecy was one of the very reasons for the decline of the system, for at times the possessor of the prescription died without bequeathing it to the next of kin. With the passage of time, *desiya chikitsa* became largely integrated with ayurveda which was introduced from North India about the time of the advent of Buddhism to the country.

Hospital concept

Hospitals were unknown in ancient civilisations such as those of Egypt, Assyria, Babylon and China. Hospitals were established for the first time in the world in Buddhist India before invasion by Alexander. Thereafter the idea spread to the neighbouring countries in Asia and thence to the west. One of the first such countries was Sri Lanka.

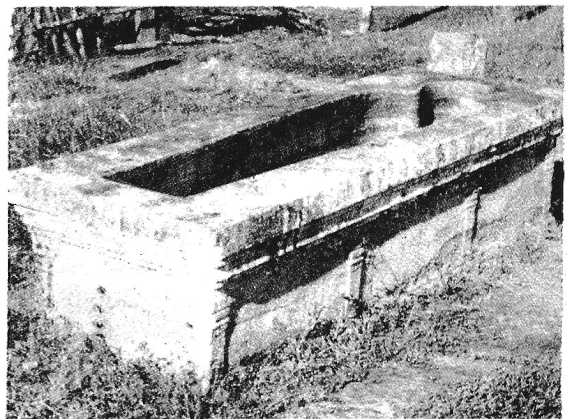
The concept of a hospital where a number of patients was collectively housed in special centres with the attendant advantages to the sick was recognised in Sri Lanka as early as the 4th century BC. Ancient kings built hospitals, both general and specialised, in Anuradhapura, Polonnaruwa and other parts of the country.

Teaching hospitals

Some monasteries, such as Mihintale, Medirigiriya and Alahana where large

communities of Buddhist monks lived, had their own hospitals where the sick clergy could be conveniently treated. As ordained by Buddhism, looking after the sick was a highly meritorious act, and this attitude was an impetus to the development of health care in Sri Lanka.

The few ancient seats of learning of university status were confined to outstanding monasteries. Medicine and surgery were probably taught in hospitals attached to these monasteries in the same way these are now taught in teaching hospitals attached to medical schools. Since Buddhism encouraged humanitarian acts such as attending on the sick. It is likely that pupil monks were trained in medicine so that they could undertake the care of the sick in the adjoining hospital. It is also likely that these hospitals acted as training centres for practical instruction in medicine, much in the same manner as the teaching hospitals of today. Mihintale and Alahana probably antedated by several centuries the modern concept of a teaching hospital.



Bath for immersion therapy found at the Madirigiriya

Medicine trough

Hospitals at Mihintale (9th century AD) and Alahana (11th century AD) have now been identified, and the excavation of these sites has yielded valuable information regarding the practice of medicine and surgery in early times. The ruins of Mihintale are perhaps the oldest of any hospital in the world. A piece of equipment which is now considered the hallmark for the identification of an ancient hospital in Sri Lanka is the medicine trough or *beheth oruwa*.

Immersion therapy, where the body of a patient was kept immersed in a bath of medicinal fluid, was an accepted form of treatment in ayurveda. A wide choice of bath fluids, which included embrocations of medicinal herbs, milk, ghee, oils and vinegar, was prescribed. Diseases treated in this manner included skin lesions, rheumatism, piles, snake bite and fever.

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Fever was probably brought down by physical cooling. Till recent times, ice caps on the head were a popular form of western treatment for high fever. The mode of action of immersion therapy for other conditions was thought to be through

fomentation or absorption of the medicinal fluid through the skin. There was skepticism in western medical circles till recent times about the ability of medicinal oils to penetrate the intact skin. Now such doubts have been dispelled, a good example being the external application of diclofenac in an oil base for muscle and joint pains.

Medicine troughs were made of metal, wood or stone. Hospitals where generations of patients had to be treated would have used the long-lasting stone troughs in preference to wood which would rot with time or metal which was likely to corrode with certain fluids.

The surviving medicine troughs at Mihintale, Medirigiriya, Alahana, Anuradhapura and Dighavapi have been fashioned out of solid blocks of stone which have been scooped out so that the cavity would conform to the shape of the human body. There is much scientific merit in this design, for a patient could be completely immersed in it with the minimum amount of the precious medicinal fluid.

Surgery

There is little evidence to assess the state of surgery in ancient Sri Lanka. The main evidence has been unearthed from the site of the Alahana parivena. The instruments discovered may be dated to the 11th century AD. These included forceps probably used for dental work or to handle bones, scissors for cutting dressings or sutures, probes, lancets and scalpels.

In Sri Lanka, surgery was less developed than medical treatment. This was a common failing in all ancient civilisations, for without the advances in anaesthesia which took place only in the 19th century, surgery had to take a back seat.

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Herbal medicine

Herbs occupied a pre-eminent place in indigenous medicine. The expertise possessed by local physicians in this regard was admired first by the Portuguese and then the Dutch. Many of the plants these foreigners saw in Sri Lanka were new to them. They were previously unaware of their medicinal properties. When years of residence in the country had brought them into contact with practitioners of ayurveda, they began to develop a healthy admiration for local knowledge. They gradually absorbed some of these local remedies into their own pharmacopoeias. One medicine much admired by the Portuguese was the fruit of *Aegle marmelos* (*beli S*).

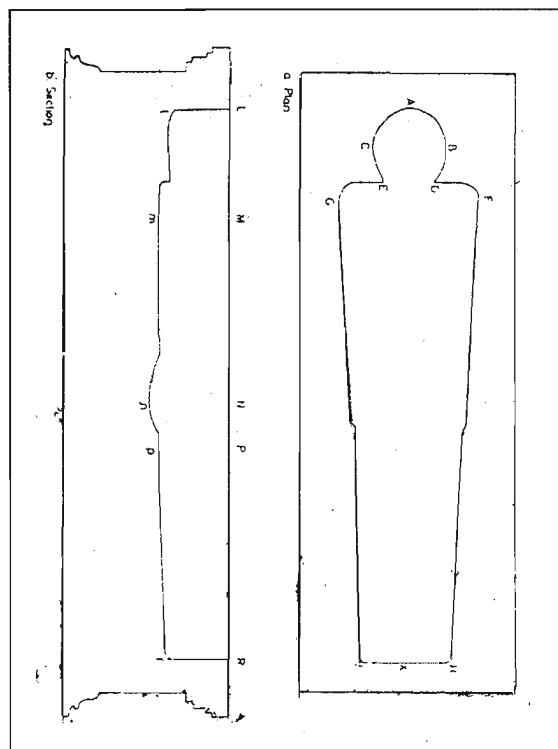
The Dutch used some of the local herbs in their hospitals in Sri Lanka. Further, they regularly sent back to Holland consignments of medicinal and other plants. These herbaria were later to earn international acclaim as the best in existence at the time. They were to advance the cause of botany throughout the world. Linnaeus, the father of botany, first applied his sexual system of classification of plants on a herbarium from Sri Lanka.

Towards the end of their rule, the Dutch began to appreciate and make use of the superior knowledge of herbal medicine possessed by the local ayurvedic physicians. In 1793 they appointed a 'native' physician to each of the Dutch hospitals in Sri Lanka.

His duty was to assist the chief surgeon on his daily ward rounds so that his knowledge was utilised in the best manner.

Sanitation

There is convincing archaeological evidence that an efficient system of sanitation existed, at least in the monasteries and palaces. Some of the archaeological remains point to the adoption of sound scientific principles in the construction of sanitary facilities, a fact which is not surprising in a people who evolved a sophisticated irrigation system. The remains of several toilet complexes in ancient Buddhist monasteries have come to light.



Plan and section of immersion bath at Mihintale