

Some Historical Aspects of Dermatology in Sri Lanka

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The system of medicine that prevailed in ancient Sri Lanka was *ayurveda*, which was introduced to the country from India about the 3rd century B.C. It now exists side-by-side with Western medicine, and treatment of skin diseases by both methods is concurrently practiced today.

Many *ayurveda* books originally written on palm leaf contain sections on skin diseases. The basis of treatment was largely the application of medicinal herbs prepared in various ways. Pastes consisting of crushed medicinal leaves were the most common recipes for skin diseases. Bathing the affected part of the skin with an embrocation of herbs was another commonly adopted form of treatment.

A method of special interest was immersion therapy, which was practiced for skin as well as other conditions, such as rheumatism and fever. A wide range of bath fluids that included embrocations of medicinal herbs, milk, ghee, oils, and vinegar was prescribed.¹ The mode of action was thought to be fomentation or absorption of the medicinal fluid through the skin.

Ancient *ayurveda* books listed metal, wood, or stone as the material from which baths were made. Since 1896, five stone troughs used for immersion therapy have been discovered in ancient hospital sites in the buried cities of Sri Lanka. These troughs, which date back to the period from the 9th to the 12th century A.D., consist of roughly rectangular blocks of stone that have been scooped out to conform to the contours of the human body. This configuration for the interior of the

bath would have ensured the most economical use of the medicinal fluid whereby complete immersion was achieved with minimum fluid requirements.

European Influence

Sri Lanka was successively occupied by the Portuguese (1517–1656), the Dutch (1656–1796), and the British (1796–1948), but only the British influenced the history of dermatology in the country. Two early British writers, Dr. John Davy and Dr. Henry Marshall, both internationally known medical men who worked in Ceylon, as Sri Lanka was then known, have left some notes of dermatologic interest in their writings.

Davy was on the staff of the British army in Ceylon from 1816 to 1820. The British governor at the time, General Sir Robert Brownrigg, was much hampered in his wars by a skin ailment he suffered for 3 years. He was treated by Dr. Davy and a Dr. C. Farrell. Probably the first dermatologic case report in Sri Lanka is found in a proclamation issued by them on January 6, 1820 regarding the condition of Sir Robert:

The complaint first made its appearance in the hands and feet, spread to the legs and even extended above the knees. The character of it more resembled Prurigo than any other disease of the skin: the eruption was papular, bright red, itched insufferably, discharged considerably, and the parts affected were generally much swollen—many different modes of treatment were tried—but with little success.²

Sir Robert's condition, which was elsewhere described as Malabar itch,² was probably scabies, a condition that was especially common in the tropics. In the past, scabies was particularly common among soldiers, and it is said that many a military campaign suffered as a result of this disease.

Davy mentions that the majority of foreigners, on arrival in the country, suffered from an attack of prickly heat, but he considered a severe attack "generally the companion of good health."³ On a long continued resi-

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dence in the country Europeans were subject to boils and a skin condition approximating Sir Robert's scabies.

Gout

Sir Robert also suffered from chronic gout,² a condition that is exceedingly rare in Sri Lanka. Sir Robert's is the first reference to gout in the local literature, and the next was as recent as 1981, when gout with tophi in a Sri Lankan was described.⁴

Leech Bites

Henry Marshall, who made a significant contribution to the health of the British army,⁵ arrived in Ceylon in 1808 as an assistant army surgeon. He mentions that British soldiers of all grades suffered from ulcers of the lower extremities, which were mostly caused by leech bites.⁶ The scratching of bite marks to relieve subsequent itching tended to promote infection, inflammation, and ulceration. Long marches made the condition worse, and by the time they entered hospital, the victims had extensive sloughing ulcers that often were infested with maggots. The leech, which abounds in the central hills of Sri Lanka, especially in rainy weather, has proved to be a valuable ally to the local people in their wars with foreign powers. It is on record that they were deliberately introduced to harass the warring Portuguese.²

Davy says that the leech caused more deaths than the rest of the animals in the country put together,³ but of course he did not reckon with the mosquito at the time. He mentions that extensive ulceration from leech bites resulted in loss of limb or life. These remarks were probably apt for foreign soldiers bent on war, but the local population was hardly affected with ulceration, even in the preantibiotic era, for they knew the art of removing the biting leeches without tearing off the dermis. It may be mentioned that leeches were used therapeutically in ancient Sri Lanka, for a 10th century stone inscription refers to "leech doctors."⁷

Aldo Castellani

A consideration of the history of dermatology in Sri Lanka would not be complete without reference to Professor Aldo Castellani, who in 1960 was a co-founder of the International Society of Tropical Dermatology. He worked in Ceylon from 1903 to 1915, and his research contributed much to the development of modern medicine, including dermatology. He was Professor of Tropical Medicine and Lecturer in Dermatology, presumably the first to hold the latter post, at the Ceylon Medical College, which celebrated its centennial in 1970.

He found that *gomara*, the golden beauty spots of Sri Lankan women, the praises of which were often sung by

ancient Sinhala bards, were but caused by a fungus.⁸ He described an occupational skin disease that he named *copra itch*, which was similar to scabies but caused by a mite. It affected workers who handled copra, the dried kernel of the coconut, which was found to be teeming with these minute insects.⁹ He made significant contributions to the study of fungal skin diseases. Perhaps, he will be best remembered by dermatologists for Castellani's paint,¹⁰ which is still used in the treatment of ringworm.

Yaws

One of the most common and most important skin diseases in the past in Sri Lanka was yaws, or *parangi*, which is believed to have been introduced into the country by the Portuguese in the 16th century. They and, later, the Dutch were accompanied by a large number of Negro slaves from Africa who probably introduced yaws as well as syphilis to the country.¹¹ The disease, which is referred to in an *avurveda* book in Sri Lanka as early as 1548, became endemic in the country, spreading untold suffering among the impoverished, drought-stricken people of the dry zone. It ravaged jungle hamlets, mutilating the villagers in the thousands. An indication of the magnitude of the problem was that from 1916 to 1920, over 300,000 cases of yaws per year were treated at government health centers.

The cause of yaws was then unknown. A number of different bacteria and a fungus were incriminated.⁹ It was even suggested to be a form of pellagra.¹¹ It was Castellani, working in Sri Lanka, who detected the spirochete responsible for the condition and named it *Spirochaeta pertenuis*. There was no known treatment for this scourge until Castellani introduced an iodine mixture that, while improving the condition, failed to cure it. He used it in Sri Lanka until Ehrlich sent him his newly discovered salvarsan.

Yaws caused much concern to the health authorities. Special hospitals for yaws were established in remote outposts and yaws clinics were conducted in some of the larger hospitals. With the advent of penicillin and its recognition as a cure for yaws, the picture changed dramatically. The disease was almost completely eradicated in the early 1950s.

Elephantiasis

Elephantiasis, a manifestation of filariasis, was common in Sri Lanka until about 40 years ago. Perhaps the earliest reference to the condition is in *Saddharma Ratanavaliya*, a collection of Buddhist stories in prose, written in the 13th century A.D. by a Buddhist monk. This book is replete with similes, and the reference to elephantiasis occurs in several of them: an example is

where doing something inappropriate is compared with applying medicine on the neck when the elephantiasis is in the leg.

The first definitive observation was made by Davy, who referred to the condition as *elephas* or *Cochin leg*.³ It was very common in Cochin in South India, where it was considered the curse of St. Thomas, who was believed to have been killed and buried there.¹² Davy³ noticed that elephantiasis was common along the Southwestern coastline of Ceylon, particularly in the town of Galle, hence the synonym *Galle leg* used by both Marshall⁶ and Castellani.⁹

Sri Lanka has a cultural heritage of ancient wall paintings in Buddhist temples, and elephantiasis is depicted in some of these. These paintings usually portray, by means of a series of panels, stories regarding the previous births of the Lord Buddha. One of these stories, the *Vessantara Jataka*, concerns a king who, having conquered desire, donates his two children to a mendicant by the name Jujuka. In a wall painting at the famous Temple of the Tooth in Kandy, which is venerated by Buddhists throughout the world, Jujuka is shown with one leg swollen with elephantiasis, probably a painter's attempt to make him appear loathsome.

With the introduction of diethyl carbamazine in the treatment of filariasis, it is doubtful whether new cases of elephantiasis occur in Sri Lanka at present.

Leprosy

Leprosy is referred to in the ancient chronicle *Mahavamsa*,¹³ several old medical books carry descriptions of the disease. There is a popular belief that a colossal statue carved out of living rock and found in the south of the country is that of a leper king, but this view is now disputed by archaeologists.

In 1708, the Dutch built a leprosy hospital near Colombo, which still functions in that capacity and is the

oldest hospital in the country. One of the first British writers to visit the institution was Davy. He has given a detailed clinical and postmortem account of a patient with leprosy that he examined in 1816.³

Leprosy became a phobia with the Dutch. Measures imposed by them for its control included compulsory segregation in the leprosy hospital, banishment to Tuticorin in South India, and prohibition of patients with leprosy from the streets and other public places.¹⁴ Over the years, these rules apparently were relaxed, but the British again introduced compulsory segregation of lepers by statute in 1901 and invested the medical superintendent of the leprosy hospital with judicial powers.

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Amebiasis

Although amebiasis has been viewed as an uncommon problem in the United States in the past, it has now become apparent that the number of patients with either the gastrointestinal or hepatic form of the disease is growing. Not only is the incidence of this disease in cities increasing among those patients who have travelled to or lived in endemic areas, but it is increasing at an even greater rate among the male homosexual population. In New York City in 1978, the 1,875 cases of amebiasis reported to the New York City Department of Health exceeded the city's totals for most other major infectious diseases, such as tuberculosis and hepatitis. On the lower west side of Manhattan, a predominately gay community, the attack rate for amebiasis is seven times the overall rate for the city. Despite this epidemic of intestinal amebiasis in the homosexual population, amebic liver abscess apparently is an uncommon complication; only three prior cases of amebic liver abscess in homosexual men were found in the literature.—Thompson JE Jr, Freischlag J, Thomas DS: *Amebic liver abscesses in a homosexual man*. *Sex Trans Dis* 10:153, 1983