



Leprosy¹ or Hansen's (han´senz) disease is a chronic, mildly infectious malady capable of producing, when untreated, various deformities and disfigurements. It is caused by the rod-shaped bacterium *Mycobacterium leprae*, first described by G. Armauer Hansen, a Norwegian physician, in 1873. The mode of transmission is not fully understood. It is thought to be transmitted by nasal discharges and skin sores, possibly also by contaminated objects and arthropods. Only 5% of those exposed acquire the disease. The onset is intermittent and gradual; symptoms may not appear until years after exposure. It is seldom fatal, but its involvement of the peripheral nerves destroys sensation and makes the patient prone to inadvertent injury.

Types of Leprosy

There are two forms of leprosy. In the tuberculoid form of the disease, the skin lesions appear as light red or purplish spots. Tuberculoid leprosy is the more benign type, even though it is accompanied by nerve involvement, which leads to numbness (usually of the extremities), contractures, and ulceration. In lepromatous leprosy, the skin lesions appear as yellow or brown infiltrated nodules (protuberances) that affect the mucous membranes of the eyes, nose, and throat. There is a general thickening of the skin, especially the face and ears. Lepromatous leprosy is the more easily spread of the two.

Diagnosis and Treatment

Diagnosis is established when the bacterium is isolated from the skin lesions or the mucous membranes of the nose. Duration and treatment of the disease depend upon its extent and character. Patients with nodular lesions are more difficult to treat and may succumb sooner; those with the neural type of lesion, despite possible mutilation and deformity, usually live longer and even experience spontaneous periods of subsidence of the malady. Dapsone was the drug of choice for leprosy from the 1940s until 1980, but due to drug resistance and the necessity for long-term (sometimes lifelong) treatment, it has been replaced by a combination of drugs. This combination, referred to as multiple drug therapy, has been highly effective and requires a shorter treatment period. The drug thalidomide has been approved for use against a complication of leprosy called erythema nodosum leprosum (ENL), which causes fever, skin lesions, and other symptoms.

History and Incidence

Diseases that probably included the malady now known as Hansen's disease are described as leprosy in the Bible; segregation and disinfection were advocated as methods of control (Lev. 13.14). Leprosy is believed to have existed in Egypt as long ago as 4000 BC and in India and Japan earlier than 1000 BC. Infectious

diseases from the East—all called leprosy—later spread over most of Europe and the British Isles, and the Crusades were a factor in disseminating them still farther, so that by the 13th century they had reached epidemic proportions. Leprosariums were eventually established in most countries for the care of those actually afflicted with leprosy.

The disease still occurs in tropical and subtropical countries of Asia, Africa, and Latin America, especially where crowded and unsanitary conditions contribute to its spread and even in the more developed countries, it crops up from time to time. In the United States, the disease is found mostly in Louisiana, Texas, Florida, Hawaii, as well as in California, the Northeast, and other areas where immigrants from endemic areas have settled. Although modern treatment is effective against the disease, the number of cases in the United States has increased significantly since the 1960s. The World Health Organization is working to eradicate the disease worldwide.

Source: <http://www.encyclopedia.com/html/l1/leprosy.asp>