A once feared disease

By Dr CHAN LEE CHIN

IN ancient times, the mere mention of leprosy struck fear and horror into the hearts of communities.

The first effective treatment became available in the 1940s. Prior to that, people affected by the disease were condemned to a life without hope, suffering the complications and disfigurement that is a hallmark of the disease.

In conjunction with World Leprosy Day on Jan 25, here's a brief Q&A touching on pertinent facts about the disease.

What is leprosy?

Leprosy is also known as Hansen's disease. It is a chronic infectious disease caused by an organism called *Mycobacterium leprae*.

The bacteria infects skin and peripheral nerves, and sometimes, other tissues, including the eye, the upper respiratory tract, and in particular, the lining of the nose and the testes.

Does leprosy still exist? Is there leprosy in Malaysia?

Every two minutes, someone is diagnosed with leprosy. It causes nerve damage and muscle weakness that can lead to deformities, blindness and isolation.

Many people think leprosy no longer exists, but it still occurs in more than 100 countries worldwide, including Malaysia.

We have an average of 300-350 new cases diagnosed per year.

For 2012 and 2013, there were 336 and 306 new cases diagnosed in Malaysia respectively.

What causes leprosy? How does it spread? Is it an inherited disease?

Mycobacterium leprae is the bacteria that causes leprosy. It is an infectious disease, not an inherited one.

The bacteria multiply very slowly, and it may take up to two to five years or more for symptoms to appear.

Leprosy is an airborne disease spread through droplets in the air. When a person with the disease sneezes or coughs, droplets with the bacteria are released into the air.

The disease can be spread when these air droplets are inhaled.

However it is not easy to develop leprosy – over 95% of people are naturally immune to the bacteria, particularly those who live in endemic areas of the disease.

Leprosy is NOT spread through contact with ulcerations on the limbs of leprosy patients.

What are the signs and symptoms of leprosy?

Leprosy can affect skin and peripheral nerves. It presents as a non-itchy skin rash with or without loss of sensation over the lesion.

It may also damage nerves, causing muscle weakness and loss of sensation in the hands and feet.

The loss of sensation leads to the loss of automatic reflexes that help us draw away from hot or sharp objects. This can result in burns and other wounds, which may then become infected.

People with leprosy may lose their fingers and toes as a result of such infections. If delayed or left untreated, paralysis of the facial nerves can lead to a loss of the blinking reflex, dryness and ulceration of the eye, and ultimately, blindness.

There are five clinical types of leprosy determined by the immunity of the patients: tuberculoid, borderline tuberculoid, borderline borderline, borderline lepromatous and lepromatous leprosy.

For treatment purposes, the disease can be divided into paucibacillary (no bacilli detected) or multibacillary (bacilli detected), depending on the results of the slit skin smear (SSS) done on the earlobes and skin lesions of the patients.

Can leprosy be cured? If left untreated, what will happen to a leprosy patient?

Leprosy affects thousands of people throughout the world, mostly in less developed countries.

The number of people with leprosy has decreased dramatically following introduction of the effective World Health Organisation (WHO) multidrug therapy in 1985.

Historically, patients infected with the disease were isolated in leper colonies, such as Sungai Buloh Leprosy Settlement, Selangor, and Pulau Jerejak Leprosarium, Penang, in Malaysia.

The highly visible nature of the disfiguring and disabilities caused by the disease has led to stigmatisation of the patients.

Today, leprosy can be treated effectively and isolating patients with the disease is NO LONGER necessary. Patients can now stay with family members and move within the community while they are receiving treatment.

How is leprosy treated?

The recommended treatment is a combination of oral antibiotics (referred to as multidrug therapy or MDT) such as dapsone, rifampin and clofazimine for six to 12 months.

In cases where there is contraindication or intolerance to the above medications, second-line drugs like oxfloxacin or minocycline can be used.

Sometimes, patients may develop immunological reactions (Lepra 1 and 2) to the *Mycobacterium leprae* like fever, swelling of the existing lesions, new erythematous tender nodules, swelling of the hands and feet, nerve pain and worsening of weakness. This inflammation can be controlled with prednisone and immune suppressants.

Today, leprosy can be treated effectively. Once started on treatment, patients can be rendered non-infectious, so isolation of patients is no longer necessary.

The most important factor is compliance to treatment.

Dr Chan Lee Chin is a consultant dermatologist, head of the Department of Dermatology, Hospital Pulau Pinang, and an exco member of the Dermatological Society of Malaysia. This article is courtesy of the Dermatological Society of Malaysia (www.dermatology.org.my).