Erythematous Plaques in a Filipino Man

Three years after emigrating from Philippines to Singapore, a 34-year-old, otherwise healthy man presented with a progressive erythematous eruption on his lower limbs. Six months prior to presentation he noticed a few erythematous plaques on his right lower limb, which were gradually increasing in size and later spread to the left lower limb (Fig. 1). They were neither itchy nor painful, but were hypoesthetic.

What is the diagnosis?
A. Lupus vulgaris
B. Leprosy
C. Syphilis
D. Granuloma annulare
E. Primary amyloidosis

Discussion
Skin biopsy showed granulomatous inflammation with multiple histiocytes in the dermis. Fite’s stain demonstrated numerous acid fast bacilli in the histiocytes consistent with lepromatous leprosy (Fig. 2). The patient was diagnosed with leprosy (Hansen’s disease) of the borderline lepromatous type. He was treated with rifampicin, clofazimine and dapsone.

Hansen’s disease, also known as leprosy, is a chronic infection of skin caused by Mycobacterium leprae. The last report pertaining to leprosy in Singapore in 1987 reported that the incidence of leprosy in Singapore has been declining over the past 20 years. However, with increasing rates of immigration from countries where leprosy is endemic, such as Philippines, Vietnam and India, it has resulted in rising cases of leprosy. As leprosy can lead to potentially severe neurological sequelae if left untreated, practising physicians need to be well aware of this disease.

Classically, leprosy presents as hypopigmented cutaneous macules along with sensory and motor peripheral neuropathies. However, the clinical manifestations vary according to the spectrum of the disease. Tuberculoid leprosy usually presents as hypopigmented, hypoesthetic patches with or without thickened peripheral nerves, whereas lepromatous leprosy presents as erythematous cutaneous plaques and nodules. Borderline leprosy has a mixture of both. This patient probably has borderline leprosy.

In this patient, he presented with erythematous plaques. However further history revealed hypoesthesia, which suggested possible leprosy. Thus, a high index of suspicion is necessary for accurate and early diagnosis as leprosy may resemble many dermatologic and neurologic conditions.

The diagnosis of leprosy is usually made on clinical grounds (i.e. the findings of anesthetic skin lesions or the presence of thickened peripheral nerves). Skin biopsy is useful in diagnosing leprosy. It can also be used to classify the disease according to the clinical spectrum.

Treating leprosy can be challenging in view of the drug resistance. An infectious disease physician or a dermatologist best manages the disease with specific expertise in this area. Leprosy is a reportable disease; hence, if it is suspected, the public health department should be notified and a specialist consulted. Multidrug therapy has been the standard for
treatment of leprosy since 1982. The current World Health Organization recommendations for multidrug treatment of leprosy are a combination of rifampicin, clofazimine and dapsone for multibacillary leprosy patients and rifampicin and dapsone for paucibacillary leprosy patients.

In summary, leprosy is a rare but serious chronic granulomatous disease. Leprosy should be considered in the differential diagnosis of patients with chronic dermatitis and peripheral nerve involvement who have a history of prolonged travel to or residence in a country where the disease is endemic.

REFERENCES

Siew Kiang Tan, MBBS, Tsun Tsien Liu, M Med (Int Med), Dip Derm (Lond), FAMS
1 Department of Dermatology, Changi General Hospital, Singapore
Address for Correspondence: Dr Siew Kiang Tan, Department of Dermatology, Changi General Hospital, 2 Simei Street 3, Singapore 529889.
Email: siewkhang@hotmail.com