

Images in Clinical Tropical Medicine

A Lepromatous Leprosy Patient with Permanent Disability

Na Wang, Hong Liu, and Furen Zhang*

Shandong Provincial Hospital for Skin Diseases, Shandong University, Shandong, People's Republic of China; Shandong Provincial Institute of Dermatology and Venereology, Shandong Academy of Medical Sciences, Shandong, People's Republic of China; Shandong Provincial Key Lab for Dermatovenereology, Shandong, People's Republic of China; Shandong Provincial Medical Center for Dermatovenereology, Shandong, People's Republic of China

A disabled, 61-year-old Chinese man was referred to our hospital with suspected leprosy. Multiple, asymptomatic, and asymmetrical infiltrated nodules were found on his extremities, with loss of eyebrows (Figure 1A and B). Both hands and feet had developed visible deformities (Figure 1C and D). High-resolution sonography, used for superficial nerve assessment (Figure 2), showed ulnar nerve trunk inflammation. After being diagnosed with leprosy 18 years ago, because of the stigma of leprosy, he rejected the diagno-

sis and refused to take medicine. He was subsequently lost in follow-up. During the past 3 years, he gradually developed visible deformities.

A slit-skin smear test and biopsy confirmed an acid-fast bacilli infection (Figure 3A–D). A differential polymerase chain reaction test was conducted as previously described,¹ revealing *Mycobacterium leprae* and confirming the diagnosis of lepromatous leprosy. The patient was treated with rifampicin, dapsone, and clofazimine (multidrug regimen).



FIGURE 1. Clinical features of the patient showing (A) milphosis, (B) multiple asymptomatic nonsymmetrical infiltrated nodules on his arm, and both (C) hands and (D) feet with visible deformities.

* Address correspondence to Furen Zhang, Shandong Provincial Institute of Dermatovenereology, 27397 Jingshi Lu, Jinan 250022, Shandong Province, People's Republic of China. E-mail: zhangfuren@hotmail.com

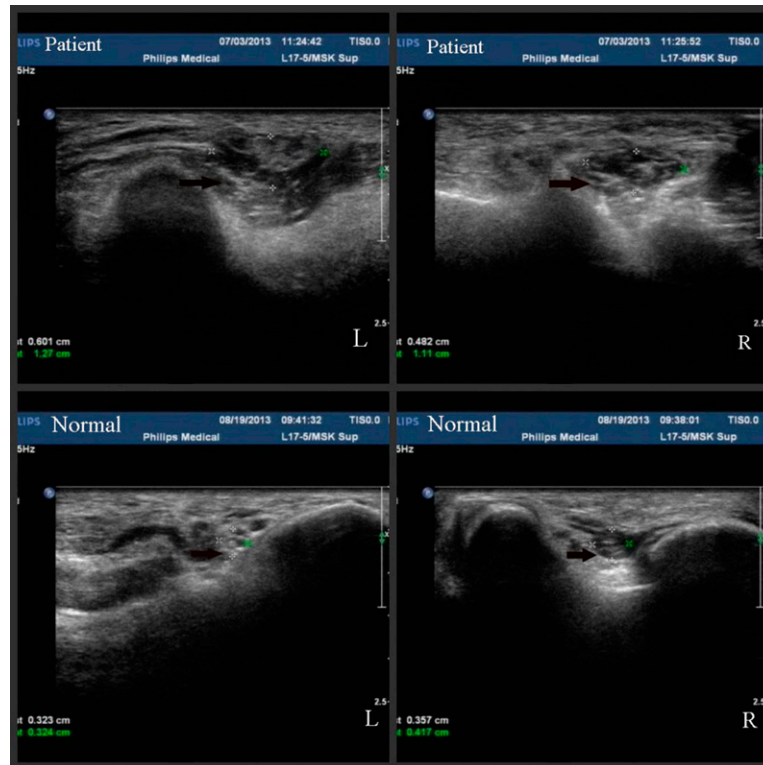


FIGURE 2. High-resolution sonography of ulnar nerve examination demonstrated diffused swelling of the ulnar nerve at the elbow. Horizontal scan of the left and right side ulnar nerve with hypoechoic fascicles (patient L and R ulnar nerves), while the normal one illustrates the screen mesh structure and the normal size.

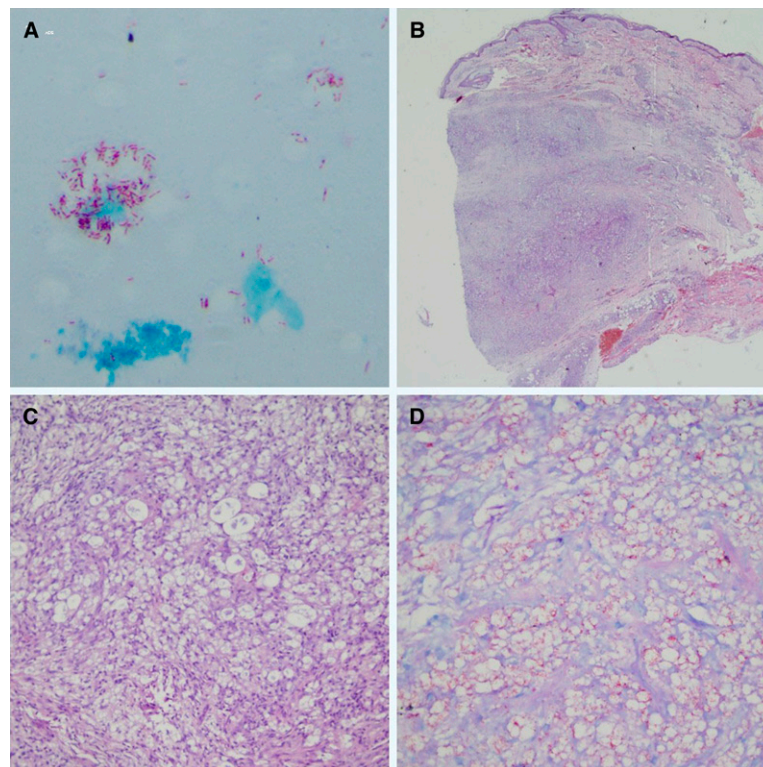


FIGURE 3. Results of the slit-skin smear and skin biopsy. (A) Globus leprosus, (B, C) skin biopsies showing diffuse dermal infiltrate of foamy histiocytes and numerous bacilli (5+) in the histopathological examinations (B: HE $\times 100$; C: HE $\times 400$), and (D) positive staining of lepra bacilli (6+) (acid-fast bacilli [AFB] stain).

Society has stigmatized people infected with leprosy since ancient times, and, once diagnosed, their economic situation may decline, their marital partners may reject them, and opportunities for further education may be reduced.² Several aspects of this case might be instructive of the epidemiological and clinical features of leprosy caused by *M. leprae*. Skin nodules usually appear in long-standing leprosy,³ just as in our patient. He had had a long history of leprosy, and his lack of awareness led to a major delay in the treatment and subsequent deformity and disability, all of which reminds us that popularizing the knowledge of leprosy is as important as early diagnosis and treatment.

Received December 30, 2014. Accepted for publication June 1, 2015.

Authors' addresses: Na Wang and Hong Liu, Department of Dermatology, Shandong Provincial Hospital for Skin Disease, Shandong University, Shandong, People's Republic of China, E-mails: kathy1112.hi@163.com and hongyue2519@hotmail.com. Furen Zhang,

Shandong Academy of Medical Sciences, Shandong, People's Republic of China, and Shandong Provincial Hospital for Skin Diseases, Shandong University, Shandong, People's Republic of China, E-mail: zhangfuren@hotmail.com.

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

REFERENCES

1. Han XY, Sizer KC, Tan HH, 2012. Identification of the leprosy agent *Mycobacterium lepromatosis* in Singapore. *J Drugs Dermatol* 11: 168–172.
2. Sermittirong S, Van Brakel WH, Bunbers-Aelen JF, 2014. How to reduce stigma in leprosy—a systematic literature review. *Lepr Rev* 85: 149–157.
3. Han XY, Jessurun J, 2013. Severe leprosy reactions due to *Mycobacterium lepromatosis*. *Am J Med Sci* 345: 65–69.