Hansen's Disease: An Imitator of Cutaneous Sarcoidosis

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Picture 1.

Picture 3.

Picture 2.

An 80-year-old Japanese woman, who had past history of hypertension, diabetes mellitus, and unruptured abdominal aorta aneurysm, felt cutaneous induration in her lower back 1 year earlier. She noticed skin eruption in the same region and visited a hospital. Physical examination revealed ill-demarcated, dark red skin eruption with some scales on her lower back (Picture 1), where local sensation was slightly disturbed. Neither nodular mass nor peripheral nerve thick-

ening was observed. Skin biopsy (Picture 2) revealed multiple epithelioid cell granuloma with Langhans-type giant cells in the whole dermis. No caseation necrosis was identified. These findings mimicked the histology of sarcoidosis. However, granulomatous involvement of peripheral nerves was evident and a few acid-fast bacilli were demonstrated by modified Ziehl-Neelsen stain (Fite method) (Picture 3). These findings led to a diagnosis of Hansen's disease (HD) of the tuberculoid type.

HD is a slowly progressive infection caused by *Mycobacterium leprae* (*M. leprae*), an acid-fast obligate intracellular organism. In Japan, HD is very rare and the number of new patients detected is reported to be 2-11 per year. Because of the histologic similarity (1), tuberculoid type HD may be misdiagnosed as cutaneous sarcoidosis. Identification of acid-fast bacilli can give pathognomonic hallmark and solve the differential diagnosis. However, because *M. leprae* is technically difficult to identify in routine paraffin sections, "the Fite method", a variant of Ziehl-Neelsen stain using oil xylene for deparaffinization, is the most commonly used. For lesions where bacilli are scanty, it is recommended that at least 6 sections should be examined before declaring

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them negative (2). Since HD is a curable disease, accurate diagnosis and effective therapy is very important. For its diagnosis, a high index of clinical suspicion is inevitable and a maximum effort to demonstrate *M. leprae* is necessary.

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References

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