Hansen’s Disease: An Imitator of Cutaneous Sarcoidosis

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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 thickening 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...
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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