Type 2 Lepra Reaction with Borderline Lepromatous Leprosy

Qiuping Chen¹, Jifeng Liu¹

1 Department of Dermatology, Hangzhou Third People's Hospital, Hangzhou, Zhejiang, People's Republic of China

Citation: Chen Q, Liu J. Type 2 Lepra Reaction with Borderline Lepromatous Leprosy. Dermatol Pract Concept. 2025;15(4):6738. DOI: https://doi.org/10.5826/dpc.1504a6738

Accepted: September 19, 2025; Published: October 2025

Copyright: ©2025 Chen et al. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (BY-NC-4.0), https://creativecommons.org/licenses/by-nc/4.0/, which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original authors and source are credited.

Funding: None.

Competing Interests: None.

Authorship: All authors have contributed significantly to this publication.

Corresponding Author: Jifeng Liu, ID, Department of Dermatology, Hangzhou Third People's Hospital. ORCID ID: 0000-0001-6556-2440. E-mail: fliu8166@126.com

Case Presentation

A 37-year-old female was admitted due to recurrent erythema, papules, and nodules over her body for six months and intermittent fever for two months. Physical examination revealed erythematous papules and plaques on the limbs and trunk (Figure 1A) and erythematous nodule on the earlobe (Figure 1B). The skin examination showed high-density leprosy bacilli (2+). Histopathological examination of the skin tissue showed lymphocyte and histiocyte infiltration around the blood vessels (Figure 1C). A diagnosis of type 2 leprosy reaction with borderline lepromatous leprosy was made.

Teaching Point

Type 2 lepra reaction is an acute inflammatory response triggered by immune complex deposition during the course of leprosy, most commonly occurring in patients with lepromatous (LL) or borderline lepromatous (BL) leprosy. Skin symptoms are painful red nodules or papules on the limbs or trunk, which may ulcerate and suppurate [1]. The first-line drugs are thalidomide and prednisone [2], so the patient was treated with oral thalidomide and prednisone, along with multidrug therapy for leprosy. The erythema nodosum basically subsided after three months.

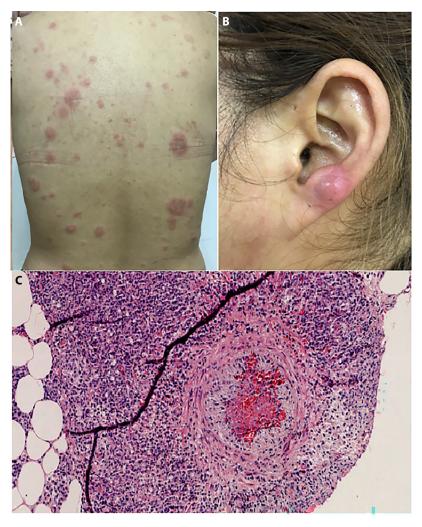


Figure 1. (A) Multiple erythematous papules and plaques on the trunk. (B) Erythematous nodule on the earlobe. (C) Histopathology (H&E, x100): Subcutaneous fat shows vascular embolism with infiltration of tissue cells and lymphocytes.

References

- 1. Carneiro S, Nakasato FK, Balassiano V, et al. Lepromatous Reaction Type II: Clinical and Laboratory Aspects. *Skinmed*. 2019;17(4):261-265. Published 2019 Jul 1. PMID: 31627788.
- Bhat RM, Vaidya TP. What is New in the Pathogenesis and Management of Erythema Nodosum Leprosum. Indian Dermatol Online J. 2020;11(4):482-492. Published 2020 Jul 13. DOI:10.4103/idoj.IDOJ_561_19. PMID: 32832433.