

Erythema Nodosum Leprosum in an HIV patient with Poor CD4 Cell Recovery: A True Co-Infection

Barbara Cariza V. Buenafe, MD
Jemelyn U. Garcia, MD, FPCP, FPSMID



CAS-004

RESEARCH INSTITUTE OF TROPICAL MEDICINE

BACKGROUND

As of 2021, leprosy is still considered endemic in the Philippines with more than 1000 cases annually. HIV-Leprosy co infection has been noted to increase. Most documented cases involve tuberculous leprosy associated IRIS from treatment induced immunological recovery. Rarely, lepromatous leprosy is encountered in the setting of severe immunodeficiency with poor CD4 cell recovery.

CASE PRESENTATION

We report a 51-year old female with known rectal adenocarcinoma and advanced HIV disease on HAART presenting with multiple erythematous tender papules with central umbilication on the upper extremities, chest, and face. This was accompanied by bipedal edema, facial swelling, and eruption of tender violaceous nodules on the anterior leg. Skin punch biopsy was done which revealed foamy histiocytes and multinucleated giant cells consistent with Hansen’s Disease.

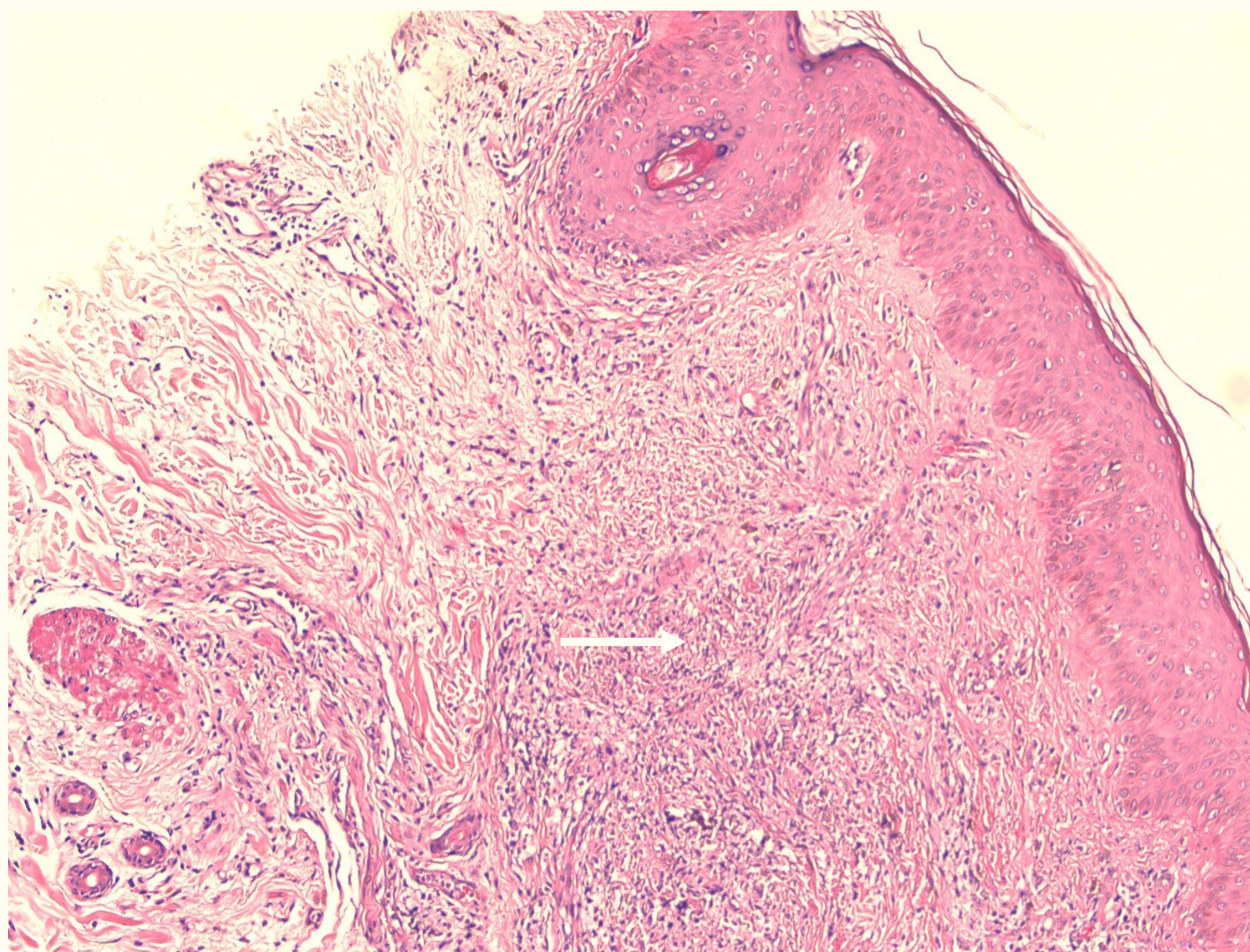


Fig 1. Multinucleated giant cells (white arrow) on LPO view

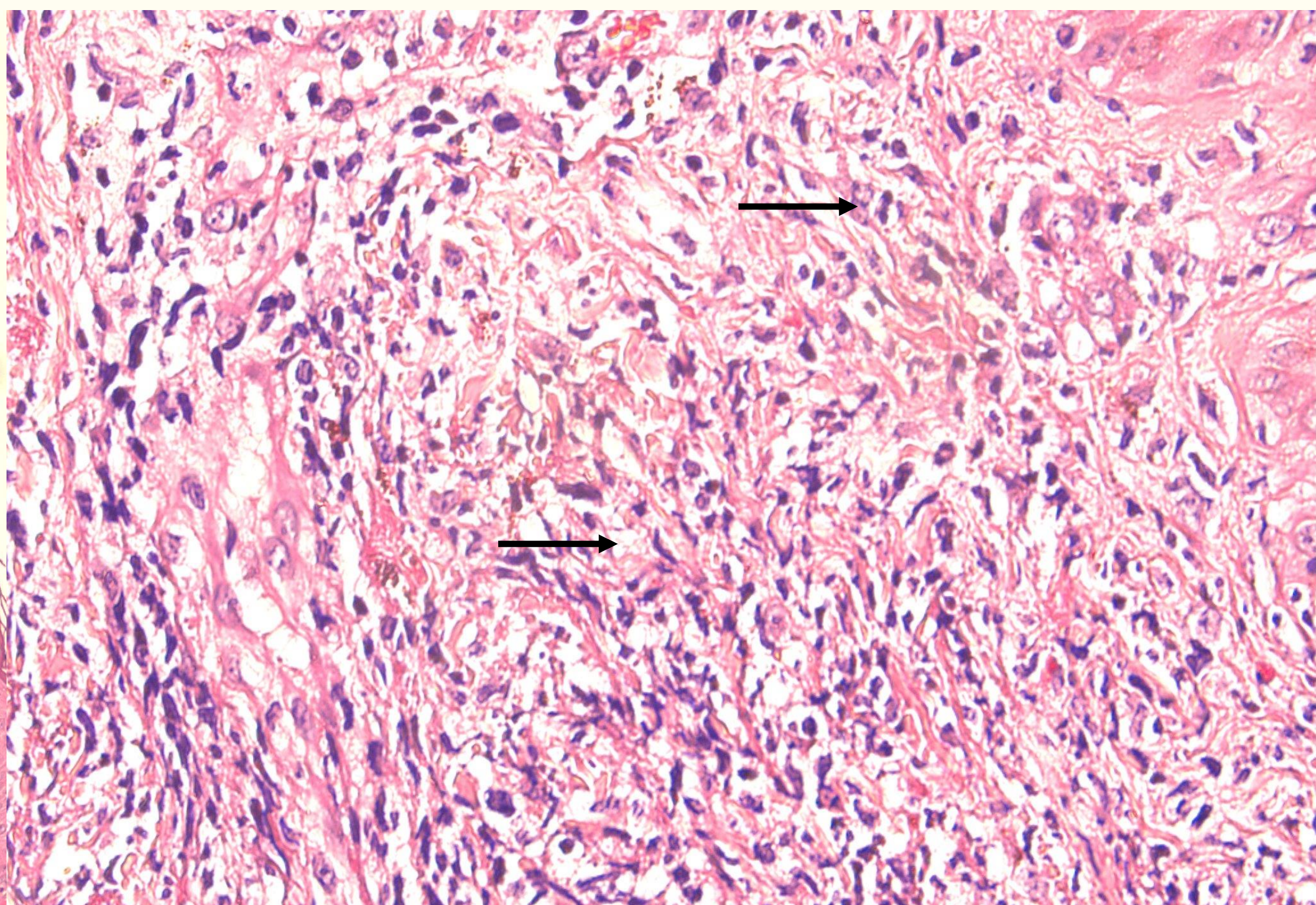


Fig 2. Foamy histiocytes typical of Hansen’s Disease (black arrow) on HPO view

She was treated as a case of Lepromatous Leprosy with Erythema Nodosum Leprosum and started on a 12 month-MDT regimen and tapering doses of prednisone. On follow-up, noted flattened lesions with resolution of edema and joint pains.



Fig 3. Erythematous nodules on both legs typical of Erythema Nodosum Leprosum



Fig 4. Raised lesions on both hands



Fig 5. Flattened lesions on both hands after 6th week of MDT

DISCUSSION

Lepa reactions are immunologically mediated episodes of acute inflammation. In patients with HIV, reactions are triggered by an unstable immune system. Most cases of leprosy in HIV are associated with IRIS after initiation of HAART. In our case, the patient’s CD4 cell count decreased to 36 cells/mm³ from 68 cells/mm³ despite three months of HAART. This decline is attributed to the presence of ongoing co-infection between HIV-1 and Leprosy. Untreated coinfections and medical conditions such as malignancy are considered factors causing CD4 lymphopenia.

CONCLUSION

In HIV-Leprosy co-infection, it appears that the patient’s cell mediated immunity, and not the HIV infection per se, alters the clinic-immunopathological spectrum of leprosy. Diagnosis is complicated by a range of manifestations due to the variability in the strength of the body’s immune response. No treatment modification is required in cases of HIV-Leprosy co-infection. However, potential interactions between anti-M. leprae and anti-HIV medications should be considered.

References:

- ¹WHO Global leprosy (Hansen disease) update, 2021
- ²Camaclang, M. L. A., and E. L. A. Cubillan. “Lepromatous Leprosy and Human Immunodeficiency Virus: A Rare Co-Infection”. Acta Medica Philippina, Vol. 53, no. 2,
- ³Walker SL. (2020) Chapter 2.2. Leprosy Reactions. In Scollard DM, & Gillis TP. (Eds.), International Textbook of Leprosy. American Leprosy Missions, Greenville, SC.
- ⁴Cybèle A. Renault, Joel D. Ernst, in Mandell, Douglas, and Bennett’s Principles and Practice of Infectious Diseases (Ninth Edition), 2020

SCAN ME

