ScientificScholar®
Knowledge is power
Publisher of Scientific Journals

https://ijpgderma.org

Indian Journal of Postgraduate Dermatology

Letter to Editor

Disseminated Erythema Induratum of Bazin in an Indian Female

Vibhu Mendiratta[1], Amit Kumar Meena[1]

[1]Department of Dermatology, Lady Hardinge Medical College, Delhi, India.

***Corresponding author:**
Amit Kumar Meena,
Department of Dermatology,
Lady Hardinge Medical College,
Delhi, India.

amitgothwal15@gmail.com

Received: 13 April 2024
Accepted: 08 June 2024
EPub Ahead of Print: 01 August 2024
Published: 23 August 2024

DOI
10.25259/IJPGD_58_2024

Quick Response Code:

Dear Editor,

Erythema induratum of Bazin (EIB) is considered to be a delayed type of hypersensitivity reaction to *Mycobacterium tuberculosis*. It is characterised by the presence of erythematous plaques and subcutaneous nodules typically affecting the lower legs of adult women.[1] EIB is a rare form of cutaneous tuberculosis (TB). In an Indian study, EIB accounted for 1.5% of the total cases of cutaneous TB.[2] Disseminated EIB is an extremely rare entity with only 2 case reports reported till date.[3,4]

A 28-year-old female presented with multiple red raised lesions over all four limbs and trunk for the past 4 months. The lesions were associated with pain and pus discharge. There was no history of fever, weight loss, chronic cough, decreased appetite and trauma. There was no history of prior infection, drug intake, hypopigmented anaesthetic lesion anywhere on the body, glove and stocking anaesthesia or any other history suggestive of leprosy. There was no history of diabetes, thyroid disorder or any other immunocompromised state.

On general physical examination, bilateral pitting oedema was present below knee. Cutaneous examination revealed multiple well-defined erythematous to dusky red nodules and indurated plaques over bilateral lower limbs [Figure 1a]. Lesions of similar morphology were present on back [Figure 1b], abdomen [Figure 1c], upper limb [Figure 1d], palms and soles [Figure 1e]. Some nodules and plaques had erosions, ulcerations and yellowish crusting. Pseudo-koebnerization was present over the left ear [Figure 1f].

Skin biopsy from a representative lesion showed stratified squamous keratinised epithelium with hyperkeratosis along with septal and lobular panniculitis. Epithelioid cell granuloma and Langhans giant cells were present in the septa of subcutaneous tissue. Ziehl–Neelsen stain for acid–fast bacilli was negative [Figure 2a and b].

Complete blood count, liver function tests and kidney function tests were within normal limits (WNL). Erythrocyte sedimentation rate (ESR) was raised. Chest X-ray, computed tomography scan of chest and ultrasound abdomen were WNL. Mantoux test was performed using 5 tuberculin units and was 12 × 13 mm after 48 h. Culture did not reveal any growth. Her viral markers, including hepatitis B, C and human immunodeficiency virus were negative.

On the basis of clinical examination, histopathology and laboratory investigations, the patient was suspected to have disseminated EIB and was started on anti-tubercular therapy as a therapeutic trial. The patient received fixed-dose combination anti-tubercular therapy containing isoniazid, rifampicin, pyrazinamide and ethambutol for the initial 2 months and after that, pyrazinamide

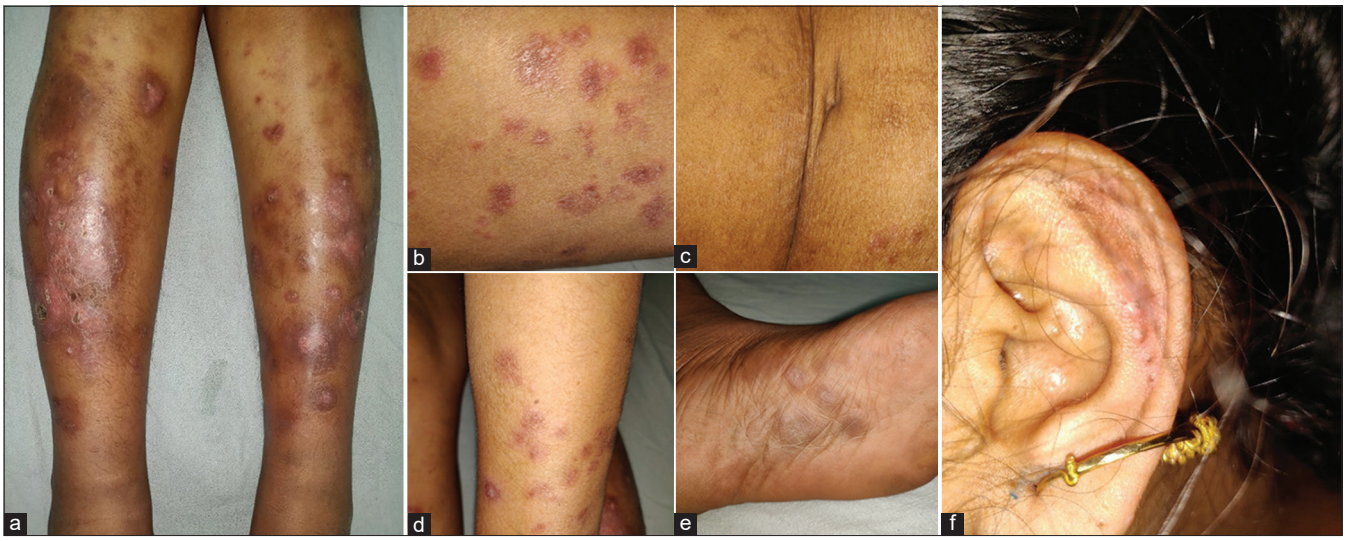

Figure 1: (a) Multiple erythematous indurated plaques and nodules over bilateral lower legs. Multiple erythematous to dusky red plaques and nodules over (b) back, (c) abdomen, (d) upper limb and (e) soles. (f) Pseudo-koebnerization seen on the left ear.

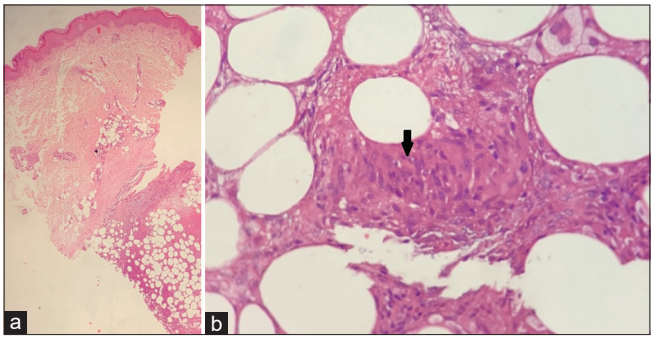

Figure 2: (a) Stratified squamous keratinized epithelium with hyperkeratosis along with septal and lobular panniculitis (haematoxylin and eosin staining, ×10 magnification). (b) Langhans giant cells (black arrow) in the septa of subcutaneous tissue (haematoxylin and eosin staining, ×100 magnification).

was stopped and rest three drugs were continued for the next 4 months. She responded within 1–2 months of starting treatment and lesions resolved completely in 6 months [Figure 3]. Her response to ATT helped us in clinching the diagnosis.

TB can affect subcutaneous tissue and may present in the form of erythema nodosum, EIB and infectious panniculitis**.** There is a failure to establish a diagnosis of TB in all patients of erythema induratum. Hence, EIB is used to describe cases of erythema induratum linked to TB and nodular vasculitis is used to describe cases of erythema induratum not associated with TB.[5]

Although erythema induratum is a rare form of cutaneous TB, it should always be kept in mind, especially in areas of high endemic zone like India. In our patient, diagnosis was made on skin biopsy which shows epithelioid cell granuloma and giant cells in the septa of subcutaneous tissue. Along with this, patient's Mantoux and ESR were also raised.

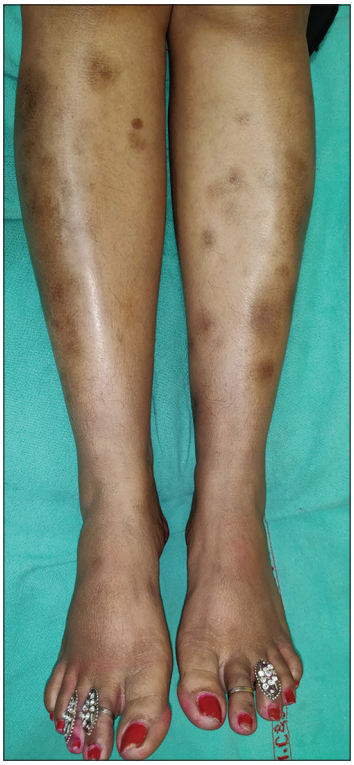

Figure 3: Lesions healed after 6 months of anti-tubercular therapy leaving behind post-inflammatory hyperpigmentation and atrophy at few areas.

To the best of our knowledge, only 2 cases of disseminated EIB have been reported till date and none from India.[3,4]

The unique features in our case are extensive lesions and koebnerization on the left ear.

This case is reported to emphasise that lesions of EIB may be disseminated and its early suspicion is important in a country like India where TB is endemic. The rarity of this entity and unique features in our case makes this case worth reporting.

Ethical approval

Institutional Review Board approval is not required.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

REFERENCES

1. Mascaró JM Jr., Baselga E. Erythema Induratum of Bazin. Dermatol Clin 2008;26:439-45.
2. Varshney A, Goyal T. Incidence of Various Clinico-Morphological Variants of Cutaneous Tuberculosis and HIV Concurrence: A Study from the Indian Subcontinent. Ann Saudi Med 2011;31:134-9.
3. Butala N, Fraimow H, Heymann WR. Disseminated Erythema Induratum in a Patient With a History Of Tuberculosis. Cutis 2020;105:E13-5.
4. Teramura K, Fujimoto N, Nakanishi G, Shigeta M, Tanaka T. Disseminated Erythema Induratum of Bazin. Eur J Dermatol 2014;24:697-8.
5. Sharon V, Goodarzi H, Chambers CJ, Fung MA, Armstrong AW. Erythema Induratum of Bazin. Dermatol Online J 2010;16:1.

How to cite this article: Mendiratta V, Meena AK. Disseminated Erythema Induratum of Bazin in an Indian Female. Indian J Postgrad Dermatol. 2024;2:163-5. doi: 10.25259/IJPGD_58_2024