

# Erythema Induratum of Bazin: A Case of Chronic Unilateral Erythematous Plaques in a Lower Limb

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This report presents a case of erythema induratum of Bazin (EIB), a rare cutaneous manifestation of tuberculosis classified as a tuberculid skin eruption.

## PATIENT DESCRIPTION

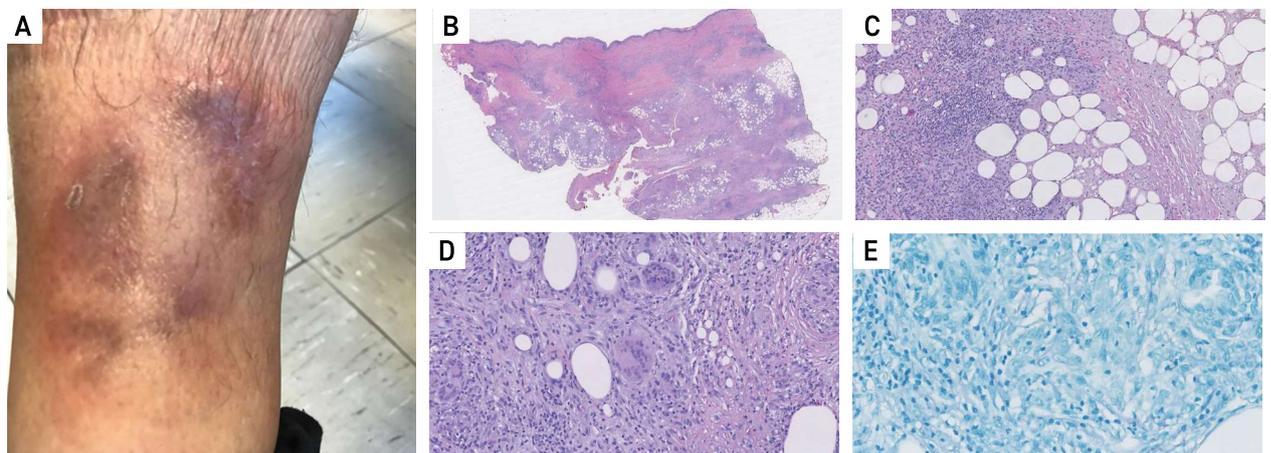
A 62-year-old male farmer with a previous history of psoriasis vulgaris, arterial hypertension, and dyslipidemia presented to his general practitioner complaining of painless, nonpruritic, hyperpigmented

skin plaques in the right lower limb for the past 5 months. He was given a therapeutic trial of betamethasone cream 1 mg/g, two times per day during one month. Due to the worsening of the lesions he was referred to a dermatology consultation. On examination, four infiltrative erythematous-brown plaques, about 1 × 2 cm and 1 × 1 cm in size located in the anterior aspect of the lower portion of the right leg were observed [Figure 1A].

Clinically, the patient was afebrile and asymptomatic. He denied history of previous trauma, itching, pain, or constitutional symptoms. He had no history of night sweats or respiratory symptoms. Laboratory workup showed raised erythrocyte sedimentation rate (30 mm/hour) and increased adenosine deaminase levels

(24.7 U/L). The rest of the investigation panel, including serological tests for hepatitis B, hepatitis C, human immunodeficiency virus 1, human immunodeficiency virus 2, and syphilis and immunological study were normal. The histopathology of the skin plaques [Figures 1B, 1C, 1D, 1E] showed lesions of lobular granulomatous panniculitis associated with vasculitis compatible with erythema induratum of Bazin. The patient underwent a Mantoux test and interferon-gamma release assay test, both of which were both positive. Further investigations excluded pulmonary tuberculosis. He started a treatment with tuberculostatic drugs (rifampicin 120 mg, isoniazid 50 mg, pyrazinamide 300 mg) for 7 months with a good clinical response and progressive regression of the skin lesions.

**Figure 1.** Cutaneous characteristics and histopathological findings of erythema induratum of Bazin [A] four infiltrative subcutaneous erythematous-brown plaques in the anterior aspect of the right leg, lower portion; [B] panniculitis lesions predominantly lobular, in the center a small blood vessel with vasculitis lesions; [C] adipose lobes with polymorphic inflammatory infiltrate accompanied by others with coagulative necrosis; [D] granulomas and multinucleated giant cells in the inflammatory infiltrate; [E] Ziehl-Neelsen staining technique with negative result



**COMMENT**

The EIB is a rare form of panniculitis, which result from a hypersensitivity reaction to *M. tuberculosis* [1,2].

The clinical presentation of EIB can be diverse and mimic other cutaneous diseases. However, it usually manifests as nodules or plaques with a chronic evolution, commonly located on the posterior or anterolateral aspects of the lower limbs [2,3]. The differential diagnosis includes infectious and non-infectious diseases, such as infectious panniculitis, cutaneous polyarteritis nodosa associated with hepatitis B and C, erythema nodosum, traumatic panniculitis, and lymphoma [3]. The diagnostic criteria for EIB and its association with tuberculosis is based on the correlation between cutaneous characteristics, positive tuberculin tests, the identification of active tuberculosis in other organs, the histopathological elements of the lesions, and the response to therapy [3,4]. The treatment used in a tuberculid does not differ from the treatment of other types of tuberculosis, with the first-line drugs being isoniazid, rifampicin, pyrazinamide, and ethambutol for a minimum period of 6 months [1,2].

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**CONCLUSIONS**

Cutaneous manifestations of tuberculosis can be the first sign of an underlying focus of infection. EIB is a rare presentation of extra-pulmonary tuberculosis and, therefore, a high index of suspicion is necessary for diagnosis. Despite being a preventable and curable disease, tuberculosis is still an endemic problem in several countries.

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**Do not pray for easy lives. Pray to be stronger men.**

John Fitzgerald Kennedy (1917–1963), 35th American President, served from 1961 until his assassination in 1963

**Life is the path you beat while you walk it.**

Antonio Machado (1875–1939), Spanish poet

**Capsule**

**Phase 1 trial of a therapeutic anti-yellow fever virus human antibody**

In phase 1a of this clinical trial, **Low** et al. assessed the safety, side-effect profile, and pharmacokinetics of TY014, a fully human IgG1 anti-yellow fever virus monoclonal antibody. In a double-blind, phase 1b clinical trial, they assessed the efficacy of TY014, as compared with placebo, in abrogating viremia related to the administration of live yellow fever vaccine (YF17D-204; Stamaril). The primary safety outcomes were adverse events reported 1 hour after the infusion and throughout the trial. The primary efficacy outcome was the dose of TY014 at which 100% of the participants tested negative for viremia within 48 hours after infusion. A total of 27 healthy participants were enrolled in phase 1a, and 10 participants in phase 1b. During phase 1a, TY014 dose escalation to a maximum of 20 mg/kg of body weight occurred in 22 participants. During phases 1a and 1b, adverse events within 1 hour

after infusion occurred in 1 of 27 participants who received TY014 and in none of the 10 participants who received placebo. At least one adverse event occurred during the trial in 22 participants who received TY014 and in 8 who received placebo. The mean half-life of TY014 was approximately 12.8 days. At 48 hours after the infusion, none of the five participants who received the starting dose of TY014 of 2 mg/kg had detectable YF17D-204 viremia; these participants remained aviremic throughout the trial. Viremia was observed at 48 hours after the infusion in 2 of 5 participants who received placebo and at 72 hours in 2 more placebo recipients. Symptoms associated with yellow fever vaccine were less frequent in the TY014 group than in the placebo group.

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