

Borderline tuberculoid leprosy with type 1/reversal reaction

Supriya Khardenavis,¹ Anirudda Deshpande²

¹JJM Medical College, Davanagere, Karnataka, India
²Department of Neurology, Kasturba Medical College Hospital, Manipal, Karnataka, India

Correspondence to
 Dr Anirudda Jaikrishna Deshpande, dr.aniruddha.deshpande@gmail.com

DESCRIPTION

Leprosy remains a common cause of peripheral neuropathy in the Indian subcontinent.¹ Clinical manifestations include skin lesions, peripheral nerve involvement in the form of numbness or weakness or painless non-healing ulcers in anaesthetic hands or feet.² 'Type 1' reactions are typically seen in patients with an unstable immunological response. They may occur in

patients with borderline tuberculoid (BT), mid-borderline and borderline lepromatous leprosy and present as erythema and oedema of existing skin lesions, eruption of fresh lesions, inflamed nerves and sensory or motor symptoms.³ Lesions in BT leprosy are like tuberculoid leprosy but smaller and more numerous with less nerve enlargement. This form may persist, revert to tuberculoid leprosy or may advance to other forms.⁴

We present images of a 24-year-old man diagnosed with BT leprosy on right greater auricular nerve biopsy (figure 1). He presented with classical clinical features including thickened inflamed nerves, right lower motor neuron-type facial palsy (figure 2), painless non-healing ulcers on hands and feet (figure 3), clawing of hands (figure 4) and hypopigmented skin patches. Within a week of starting multi-drug therapy (rifampicin, dapsone and clofazimine) he developed an erythematous, painful rash on the right side of the face, a manifestation of type 1

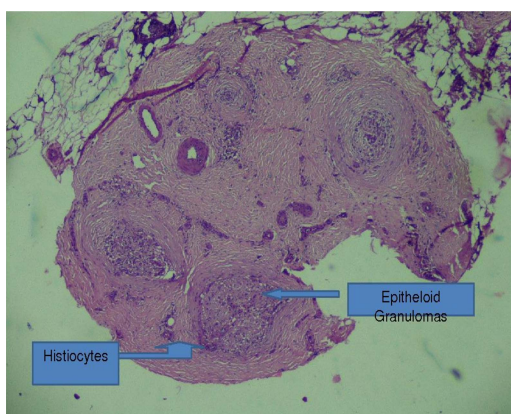


Figure 1 Histopathology slide of nerve biopsy showing histiocytes and epithelioid cells (marked with pointed arrows; H&E $\times 40$).

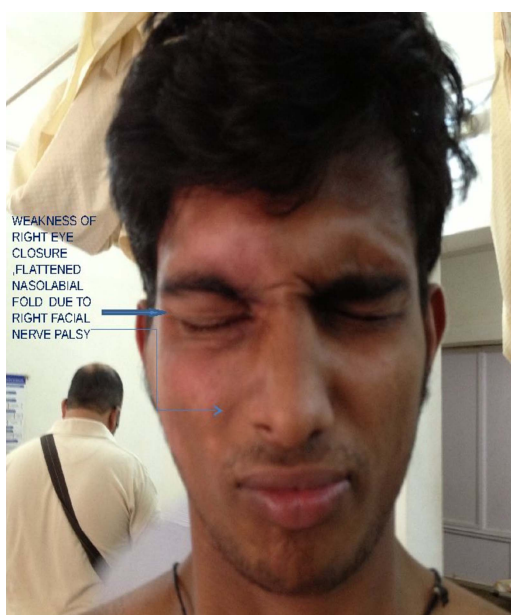


Figure 2 Post-therapy clinical photograph (3 weeks after initiation of multidrug therapy). Right lower motor neuron facial palsy depicted by weak eye closure, flattened right naso labial fold.

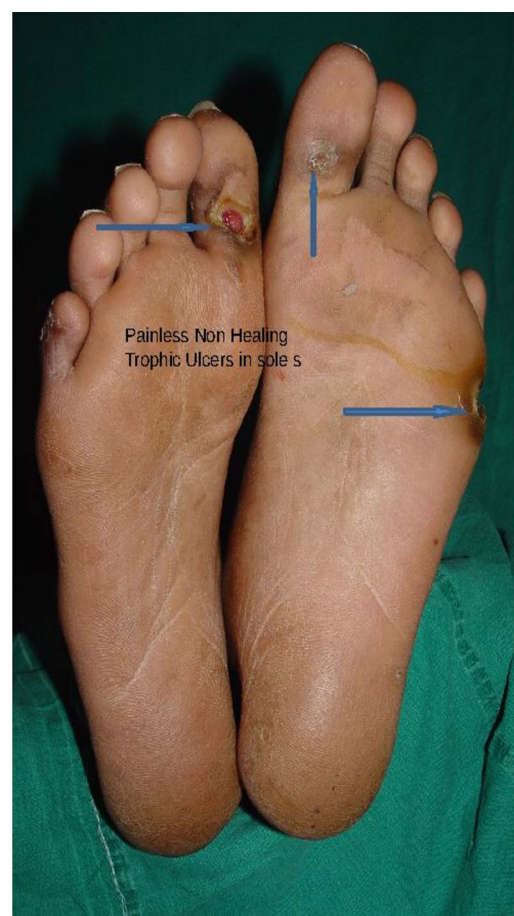


Figure 3 Pretherapy clinical photograph showing painless, non-healing trophic ulcers in feet.



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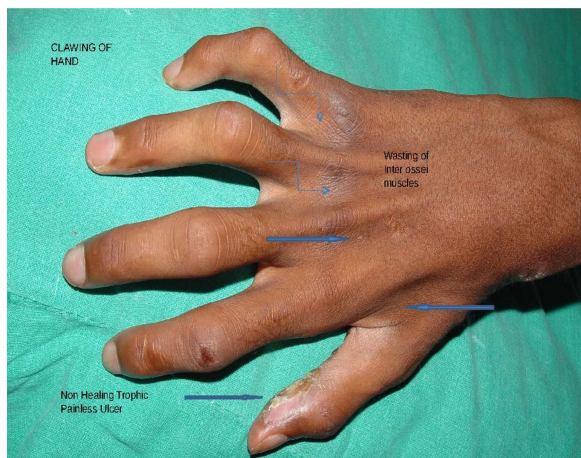


Figure 4 Pretherapy clinical photograph showing clawing of hands, wasting of interosseal muscles, painless non-healing ulcers on hand.

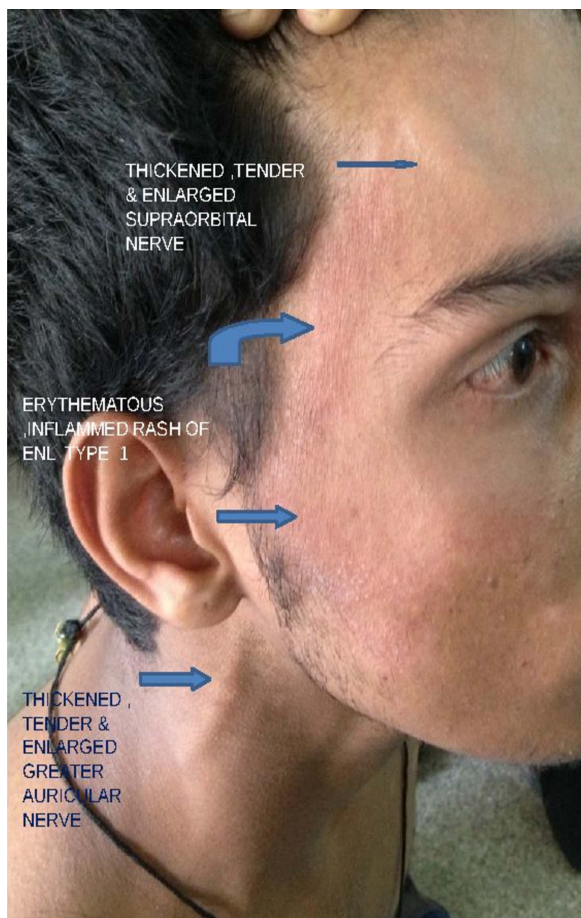


Figure 5 Post-therapy clinical photograph (3 weeks after initiation of multidrug therapy) showing thickened inflamed tender supraorbital (right) and greater auricular nerve (right), with red, inflamed rash on the right side of the face seen in type 1 reversal reaction.

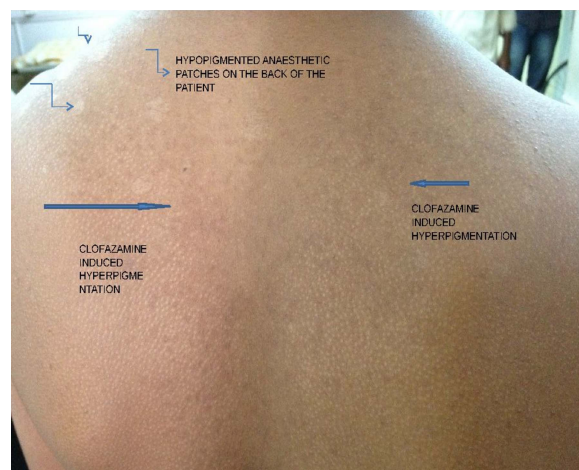


Figure 6 Post-therapy clinical photograph (3 weeks after initiation of multidrug therapy) showing clofazimine-induced hyperpigmentation on the back.

reversal reaction (figure 5). Over the next few follow-up visits, we also noticed hyperpigmentation of skin on his back, most probably clofazimine-induced (figure 6).

These classical images of leprosy are a reminder to medical students and practicing physicians of the importance of maintaining diagnostic skills in recognising this ancient disease.

Learning points

- ▶ Leprosy causes painless, non-healing ulcers, clawing of hands, hypopigmented anaesthetic patches, thickened nerves and lower motor neuron facial palsy.
- ▶ Type 1 reversal reaction can present as lesions of the skin, eruption of newer skin lesions, inflamed nerves and sensory or motor symptoms.
- ▶ Antileprosy drug clofazimine has hyperpigmentation as a major cosmetic side effect.

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