Cerebellitis as an atypical manifestation of scrub typhus

Figure 1 The scrotal scar (also known as eschar) seen on examination of the patient

A 21-year-old-man presented in a semiconscious state with 2 days' inability to walk and 5 days' history of fever (102.2°F) and rash. Examination revealed severe ataxia, slurred speech, and a scrotal scar (figure 1). Head CT and CSF studies were normal. Brain MRI revealed diffuse cerebellar cortical hyperintensity on T2 and fluid-attenuated inversion recovery images (figure 2, A and B), with restriction (figure 2C) and postcontrast enhancement (figure 2D) suggesting inflammation. Weil-Felix test (OX-K-1:320)¹ and immunoglobulin M ELISA were positive for scrub typhus. Improvement occurred after oral doxycycline.

Isolated cerebellar involvement is rare in scrub typhus,² a mite-born infection caused by *Orientia tsutsugamushi*^{1,2} that classically presents with fever, rash, and eschar. Laboratory confirmation is required to differentiate it from co-endemic diseases like typhoid, leptospirosis, and dengue.¹

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Figure 2 MRI brain

MRI shows diffuse cerebellar cortical hyperintensity on T2 (A) and fluid-attenuated inversion recovery images (B); the involved areas show restriction (C) and enhance after contrast administration (D).

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