A 10-month-old Japanese girl presented with asymptomatic papules on the whole body that had appeared 3 weeks prior to referral. She had been treated with topical corticosteroids and oral antibiotics at a previous clinic, with poor response. Physical examination revealed light-red papules of up to 8 mm diameter scattered over her extremities and head (Fig. 1A, B). Pustules with partly follicular distribution were also observed on her forehead and anterior scalp (Fig. 1B). History-taking revealed that she had received the Bacillus Calmette–Guérin (BCG) vaccine 2 months prior to onset of symptoms. She had no systemic symptoms, such as fever, cough or hepatosplenomegaly, nor did she have episodes associated with immunodeficiency. A skin biopsy from a papule on her forearm revealed interstitial and perifollicular lymphohistiocytic infiltration (Fig. 1C). Multi-nucleolar histiocytes were also observed (Fig. 1D). These cells stained positively for CD68 and were negative for S-100 and CD1a. No bacillary organisms were detected from the skin specimen by Ziehl-Neelsen staining.

What is your diagnosis? See the next page for answer.
Diagnosis: Papular tuberculid following BCG vaccination

Papular tuberculid associated with BCG vaccination usually resolves within a few months after onset. Differential diagnoses include cutaneous BCG dissemination, granuloma annulare, varicella, pityriasis lichenoides et varioliformis acuta, superficial folliculitis and Langerhans cell histiocytosis. Skin biopsy with Ziehl-Neelsen staining and immunohistochemistry is useful for ruling out these conditions, especially if the skin lesions persist for months. Of note, granuloma annulare has been reported to clinically mimic papular tuberculid, which is characterized by palisading granuloma and necrobiosis (5, 6). However, rather rapid improvement does not fit the typical course of granuloma annulare in these cases, and they should be considered as a variant of papular tuberculid.

In conclusion, dermatologists and paediatricians should determine the history of BCG vaccination when examining infants with asymptomatic papulosis.

REFERENCES