

DERMATOLOGICAL FEATURES OF AN IMPORTED CASE OF CHIKUNGUNYA IN AN INFANT

Dear Sir,

Chikungunya fever is an arbovirus infection characterised by fever, rash and arthralgia. In young children, however, it may not be possible to elicit a history of joint pain. Of the other two features of chikungunya, both fever and rash may also occur in dengue, a viral infection that is endemic in Singapore.

An 11-month-old Chinese male infant presented with a two-day history of fever, rash of one day's duration and two episodes of vomiting with loss of appetite. There were no symptoms associated with the respiratory tract. The family had recently spent ten days in Muar, Johor, Malaysia, which was experiencing a chikungunya outbreak at the time. They had returned to Singapore two days before the onset of fever. On examination, the child was febrile with a temperature of 40°C, lethargic, irritable and reluctant to move his limbs. There was a generalised flush over the whole body resembling that of dengue. The lips were red, and the pinna (Fig. 1), palms and soles (Fig. 2) were erythematous with oedema. There was a distinctive maculopapular rash on the face (Fig. 1) and buttocks (Fig. 3). The white cell count was $8.1 \times 10^9/L$ (68% neutrophils, 25% lymphocytes, 6% monocytes, 1% atypical monocytes) and the platelet count was $183 \times 10^9/L$. The ESR was 13 mm/hr and the C-reactive protein 33.6 mg/L. The urea, electrolyte and liver function tests were essentially normal. Dengue IgG and IgM by rapid immunochromatographic test were negative. The chikungunya IgM taken on the day of admission was negative. However, the blood sample was positive for chikungunya virus by real-time polymerase chain reaction (RT-PCR).



Fig. 1 Photograph shows discrete maculopapular rash on the face and erythema of the pinna on day 3 of fever. The rash is symmetrical on both sides of the face.



Fig. 2 Photograph shows erythematous oedema of the heels on day 3 of fever progressing to involve the entire sole the following day.



Fig. 3 Photograph shows erythematous rash on the buttocks on day 3.

The child was managed symptomatically with intravenous rehydration, analgesia and antipyretics. The buttock rash disappeared after two days, while the facial rash became pigmented and was still present at time of discharge. The fever lasted a total of five days. A repeat RT-PCR seven days after the onset of fever was still positive. The child made good progress and was discharged well the following day when another repeat RT-PCR was negative.

The cutaneous features of chikungunya were recently summarised by Inamadar et al.⁽¹⁾ In India, the most common lesions were pigmentary changes (42%), maculopapular eruptions (33%), and intertriginous aphthous-like ulcers (21.37%). The most widely-observed facial lesion was a brownish-black pigmentation in a centropal distribution resembling freckles. Less common was a diffuse, slate-coloured pigmentation involving the face, pinna,

and extremities. Rarely, the pigmentation was preceded by transient erythema of the nose and a maculopapular eruption. In summary, while the clinical features of chikungunya and dengue in an infant are similar, the diagnosis of chikungunya may suggest itself if a characteristic freckle-like facial rash is present. This should be confirmed by RT-PCR in the first week of illness as the serological tests are often negative.⁽²⁾

Yours sincerely,

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