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CASE REPORT

A 6-year-old female was referred for multiple pruritic lesions on her legs. No other members of the family had similar skin manifestations. The family reported having fleas at home previously, but the house had since been fumigated. Examination revealed numerous 4–8 mm excoriated, erythematous papules in clusters on the legs (fig 1).

The family was reassured that these lesions were probably secondary to flea bites. However, the patient continued to have intermittent recrudescences. The family became frustrated and sceptical because no one else at home showed signs of insect bites.

At the sixth-month follow-up, the patient's mother brought in some debris from the patient's bed. The material was examined microscopically and identified to be a cat flea (*Ctenocephalides felis*) larva (fig 2). The family cat was treated for fleas and at follow up the patient was found to be clear.

Children under 2 years typically do not have sufficient exposure to insect antigens to mount a robust hypersensitivity response.[2] Conversely, children over 10 years typically develop tolerance to the antigen and produce transient wheals instead of long-lasting papules.[2 4] This age-based susceptibility explains the common but counterintuitive scenario illustrated in this case wherein only a single child is affected despite the whole family being exposed to the insect.

Management of papular urticaria – prevention and eradication – is usually implemented without confirmatory evidence of the culprit.[1–3] Unfortunately, preventative measures such as home fumigation and treatment of pets are costly and may seem excessive when families are sceptical of the diagnosis.[3 4]

Identifying the culprit helps motivate families to invest in prevention and can uncover failures in eradications. By verifying the persistence of the cat flea in the patient's home despite fumigation, we pinpointed the cat as the source of re-infestation and potentially averted a frustrating cycle of recurring eruptions for the patient.

Figure 1 Clusters of excoriated erythematous papules and healing macules on the patient's lower extremities.

Figure 2 Photomicrograph of the cat flea larva (original magnification 10×).

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