

Severe eczema flare and Coxsackie virus

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DESCRIPTION

A 5-month-old girl presented to hospital complaining of an acute flare of her eczema. Her eczema developed at 3 months of life and had not been well controlled on regular emollients alone. She had been coryzal over the preceding 2 days with decreased feeding and wet nappies. The following morning, a rash was noticed to have rapidly spread from her skin creases to involve most of her body. She was febrile, tachycardic and irritable on admission with a widespread vesiculopapular rash worst on her feet, legs and hands. Vesicles were noted on the soles of her feet. The rash progressed to cover her trunk and face with some areas of confluence (figures 1 and 2). The presence of some punched-out lesions in a systemically unwell child raised concerns for eczema herpeticum. Other potential differential diagnoses include Gianotti-Crosti syndrome as this also present with a progressive rash, though effected infants remain systemically well and the rash tends to be non-pruritic and to spare the trunk.

The infant was admitted and commenced on intravenous acyclovir and co-amoxiclav with a provisional diagnosis of superinfected eczema herpeticum. Viral PCR testing performed on a skin swab did not detect Herpes simplex virus but identified Coxsackie virus, thus confirming a diagnosis of eczema coxsackium.

In contrast to the potentially life-threatening complications of herpetic infection, eczema coxsackium is self-limiting and resolves with topical eczema treatments.¹ It is most often caused by the CVA6 virus rather than CVA16 which is the predominant cause of hand, foot and mouth disease though both have been implicated. It localises to areas of skin barrier damage such as eczema, but also other causes such as sunburn, contact dermatitis and epidermolytic ichthyosis.



Figure 1 Widespread vesiculopapular rash with swelling of the feet.



Figure 2 Extension of the rash across the trunk with areas of confluence seen on the neck and cheek.

Rapidly worsening eczema, particularly when associated with the development of vesicles, suggests potential bacterial or viral infection. While often mild, eczema coxsackium can present with a widespread rash in a child who is systemically unwell as in this case. There is mucosal involvement in half of cases and the initial presentation may be indistinguishable from eczema herpeticum.² Unwell infants should be admitted for antiviral therapy while skin swab PCR results are pending.^{3,4}

The use of wet wrap therapy has been described in the treatment of eczema coxsackium; however, this was not required in this case.⁵ Complete resolution of the rash was seen following a

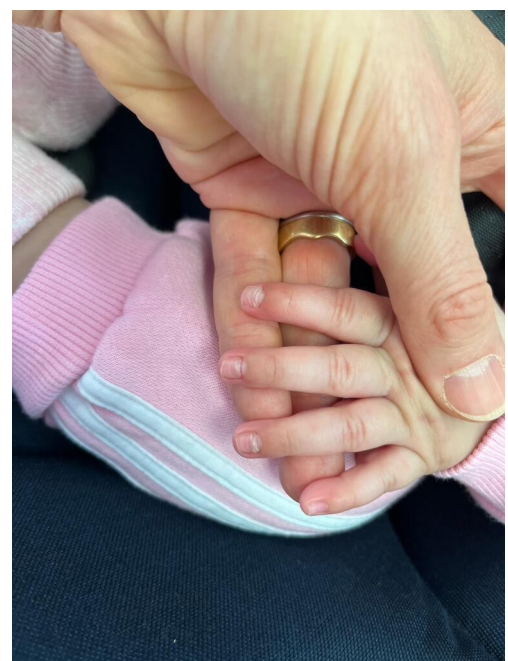


Figure 3 Nail changes following clinical resolution.



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Patient's perspective

As parents, to see your child in pain is horrific but I was astonished at how fast the infection spread. Within a few hours it had gone from only the chest to head to toe. It began with blister like dots all over the body and pretty soon the whole body became very red and inflamed which just put her in even more pain. The way the doctors and staff handled what was happening to my daughter was honestly great, everything from the medicine and plan put in place to the care while she stayed in hospital. My husband and I cannot thank everyone enough for the hard work and understanding what a stressful time this is as parents but helping our daughter and us through this ordeal. Our daughter is doing much better now, the skin has all shed where the dots were and there is some discolouration over the body, even though the itching continues due to the eczema it is slowly healing and the plan put in place and her follow-ups are all contributing to this.

Learning points

- ▶ Rapid deterioration of a child's eczema can suggest viral or bacterial infection, careful examination for viral lesions is recommended.
- ▶ Eczema coxsackium is clinically indistinguishable from eczema herpeticum, therefore clinically unwell children should be admitted for empiric treatment with acyclovir pending skin swab viral PCR.
- ▶ Eczema coxsackium is a self-limiting viral infection and resolves with supportive care and topical eczema treatments.

period of 2 weeks and diligent treatment with emollients and topical corticosteroids. On follow-up, the infant's eczema has improved but remains dependent on topical corticosteroids.

There have also been characteristic nail changes, which are a recognised sequelae of eczema coxsackium (figure 3).²

This infant presented during a period of easing restrictions following a prolonged national lockdown due to the COVID-19 pandemic. With increased social contact for infants born during the pandemic, a spike in viral infections and hospital presentations has occurred. A cluster of four infants with eczema coxsackium required admission to our ward in the same week, emphasising the need for clinical awareness.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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