Images in Allergy

Eczema Herpeticum in an Infant

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A 3-month-old otherwise healthy girl with known eczema presented to the Department of Pediatrics with acute onset of a facial rash and fever of 39 °C. On examination, the infant was systemically well and stable hemodynamically. She had confluent areas of skin crusting and weeping over the entire face, with disseminated monomorphic, umbilicated, vesiculopapular lesions (Figure 1, A). Facial edema and cervical lymphadenopathy were also present. Despite therapy with oral cefaclor (30 mg/kg/d, 3 times daily) and cetirizine hydrochloride liquid drops (0.25 mg/kg/d, twice daily) for 3 consecutive days, eczema lesions worsened. Serological test results for EBV, cytomegalovirus, varicella zoster, hepatitis viruses, HIV, and syphilis were negative. IgM antibodies were positive for herpes simplex virus type 1 (HSV-1) but negative for HSV-2 by chemiluminescence immunoassay. Because of clinical setting in a county hospital, we were limited in laboratory evaluation methodology available for our working diagnosis of eczema herpeticum (EH). The combination of positive serology and the presence of monomorphic blisters did support in this case the diagnosis.

With a diagnosis of EH, the patient was started on a regimen of intravenous acyclovir (20 mg/kg/d, 8 hourly) for 7 days, immunoglobulin (IVIG) (1 g/kg/d, once daily) for 2 days, as well as cefuroxime (80 mg/kg/d, twice daily) for 7 days to prevent bacterial superinfection. The defervescence of fever was achieved, and the progression of epidermal eruptions was halted after 2 days of the treatment. Within 7 days of hospitalization, significant reepithelialization and healing of the lesions occurred (Figure 1, B). Complete healing of the lesions was seen at a 1-month follow-up visit with no evidence of scarring (Figure 1, C)

EH, also known as Kaposi’s varicelliform eruption, is a rare, but potentially life-threatening disseminated cutaneous infection caused by HSV-1 or HSV-2 in a patient with another underlying dermatosis, most frequently atopic dermatitis. It affects all ages with an equal incidence in both sexes, and the highest incidence among younger children. EH usually presents as sudden worsening of a child’s eczema, presenting with clusters of umbilicated, dome-shaped vesicles of similar size and appearance, followed by punched-out ulcers. Antiviral therapy is the mainstay of treatment with appropriate antibiotic cover to prevent secondary bacterial infection. There are no randomized trials on the superiority of oral or parenteral administration of antiviral agents. The recommendation is starting immediate treatment with oral or intravenous acyclovir, depending on the severity of disease.

The patient experienced a severe and rapid progression of skin lesions over the face and had a poor oral intake. Thus, in addition to the treatment with intravenous acyclovir for 7 days, we supplemented the therapy with intravenous fluids and IVIG. The choice of IVIG was based on our previous experience and best clinical judgments on the circumstances. IVIG provides antimicrobial efficacy and represents a promising alternative strategy for the treatment of infectious diseases by virtue of the diverse repertoire of immunoglobulins that possess a wide spectrum of antibacterial and antiviral specificities. In addition, IVIG is known to have anti-inflammatory effects that may be beneficial when used in combination with antiviral agents. The patient had a positive penicillin skin test result; thus, intravenous cefuroxime was chosen empirically to prevent secondary bacterial infection with staphylococci or streptococci.

REFERENCES

FIGURE 1. (A) Confluent areas of crusting and weeping over the entire face. Monomorphic and umbilicated vesiculopapular lesions. (B) Significant reepithelialization. (C) Complete healing of the lesions with no evidence of scarring.