

Disseminated Vesicular Rash in an Immunocompetent Adult Woman: A Quiz

Trine HØGSBERG and Anette BYGUM

Department of Dermatology, Odense University Hospital, Søndre Blvd 29, DK-5000 Odense C, Denmark. E-mail: trinehoegsberg@yahoo.dk

A 51-year-old woman was hospitalized due to an itchy, generalized rash, which had been present for 5 days. She had concomitant sore throat, oral lesions and some genital irritation. Before admission, she had visited her family practitioner and emergency service, where she was prescribed nobligan. A practicing dermatologist suspected vasculitis and took a skin biopsy.

No known exposures could be identified. She was working as a teacher for adults, and did not know of any people with infections in her social circle. For 2 years she had been treated with a stable dose of escitalopram.

Clinical examination revealed multiple red papulovesicular and pustular lesions distributed mainly on the trunk,

but also to a lesser extent on the limbs including the palms and soles (Fig. 1). She had vesicles and small erosions around her lips and inside her mouth, general malaise, retrosternal pain on swallowing, and had been vomiting. She had no fever and had reported no other complaints. Blood testing showed mild lymphopenia and marginally raised C-reactive protein 27 (<6).

Skin biopsy revealed extensive necrosis of the epidermis with a few scattered lymphocytes. Dermal oedema was seen with a lymphocytic infiltrate, but no signs of vasculitis. Histopathology suggested erythema multiforme or toxic epidermal necrolysis.

What is your diagnosis? See next page for answer.

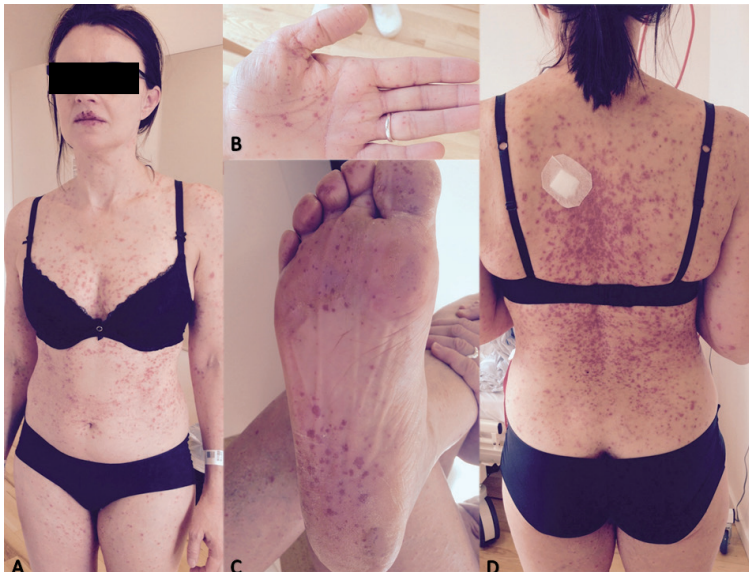


Fig. 1. Multiple papulovesicular lesions confluent on the trunk and centred around the mouth and macular punctate lesions on the palms and soles. Written permission was provided by the patient to publish these photographs.

ANSWERS TO QUIZ

Disseminated Vesicular Rash in an Immunocompetent Adult Woman: A Commentary

Acta Derm Venereol 2018; 98: 163–164.

Diagnosis: Atypical hand, foot, and mouth disease caused by echovirus 3

The clinical picture was suspicious of atypical hand, foot, and mouth disease (HFMD), which can also occur in adults. This condition is most often caused by coxsackievirus A6 and may manifest as eczema coxsackium in people with a background presence of eczema. Typical HFMD is caused by coxsackievirus A16 or enterovirus A71. In this case PCR analysis of a stool sample revealed echovirus 3, another enterovirus. Echoviruses are infrequently reported in human disease, and we could only find 12 reports in the literature of vesicular rashes caused by echovirus (1–12). Ten of these publications referred to children from Thailand, China, Malaysia, Brazil, Spain or Germany with HFMD caused by echovirus 3, 4, 7, 9, 11, 19, 24, 25 or 71. To our knowledge, there have been no reported cases of echovirus 3 infection associated with atypical HFMD in an adult. The patient's condition improved spontaneously within 2 weeks.

The authors have no conflicts of interest to declare.

REFERENCES

1. Dechamps C, Peigue-Lafeuille HH, Laveran H, Beytout J, Roger H, Beytout D. Four cases of vesicular lesions in adults caused by enterovirus infections. *J Clin Microbiol* 1988; 26: 2182–2183.
2. Deseda-Tous J, Byatt PH, Cherry JD. Vesicular lesions in

adults due to echovirus 11 infections. *Arch Dermatol* 1977; 113: 1705–1706.

3. Puenpa J, Mauleekoonphairoj J, Linsuwanon P, Suwannakarn K, Chieochansin T, Korkong S, et al. Prevalence and characterization of enterovirus infections among pediatric patients with hand foot mouth disease, herpangina and influenza like illness in Thailand, 2012. *PLoS One* 2014; 9: e98888.
4. Apisamtharak A, Kitphati R, Pongsuwann Y, Tacharoenmudeng R, Mundy LM. Echovirus type 11: outbreak of hand-foot-and-mouth disease in a Thai hospital nursery. *Clin Infect Dis* 2005; 41: 1361–1362.
5. Hooi PS, Chua BH, Lee CS, Lam SK, Chua KB. Hand, foot and mouth disease: University Malaya Medical Centre experience. *Med J Malaysia* 2002; 57: 88–91.
6. Zhu Z, Xu WB, Xu AQ, Wang HY, Zhang Y, Song LZ, et al. Molecular epidemiological analysis of echovirus 19 isolated from an outbreak associated with hand, foot, and mouth disease (HFMD) in Shandong Province of China. *Biomed Environ Sci* 2007; 20: 321–328.
7. Bian LL, Yao X, Mao QY, Gao F, Wang YP, Ye Q, et al. Complete genome sequence analysis of echovirus 24 associated with hand-foot-and-mouth disease in China in 2012. *Genome Announc* 2015; 3: e01456–14.
8. Li H, Meng Y, Pang L, Liang J, Lu H, Wang Q, et al. Complete genome sequence of a new recombinant echovirus 25 strain isolated from a neonatal patient with hand, foot, and mouth disease complicated by encephalitis in Beijing, China. *Virus Genes* 2015; 50: 505–508.
9. Yao X, Bian LL, Mao QY, Zhu FC, Ye Q, Liang ZL. Echovirus 7 associated with hand, foot and mouth disease in mainland China has undergone a recombination event. *Arch Virol* 2015; 160: 1291–1295.
10. Russo DH, Luchs A, Machado BC, Carmona Rde C, Timenetsky Mdo C. Echovirus 4 associated to hand, foot and mouth disease. *Rev Inst Med Trop Sao Paulo* 2006; 48: 197–199.
11. Boell F, Meier-Ewert H. Echo-6 viren als erreger des Hand-Fuss-Mund-Exanthems. *Hautarzt* 1977; 28: 96–97.
12. Davia JL, Bel PH, Ninet VZ, Bracho MA, González-Candelas F, Salazar A, et al. Onychomadesis outbreak in Valencia, Spain associated with hand, foot, and mouth disease caused by enteroviruses. *Pediatr Dermatol* 2011; 28: 1–5.