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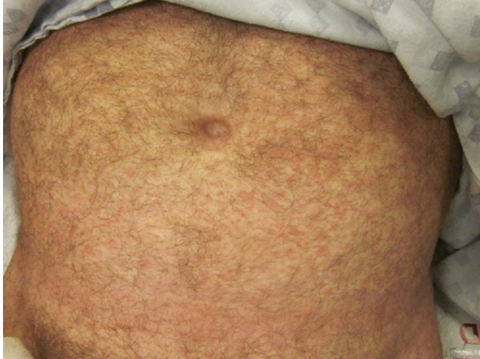

Figure 1. An erythematous reticulated rash on patient's trunk.

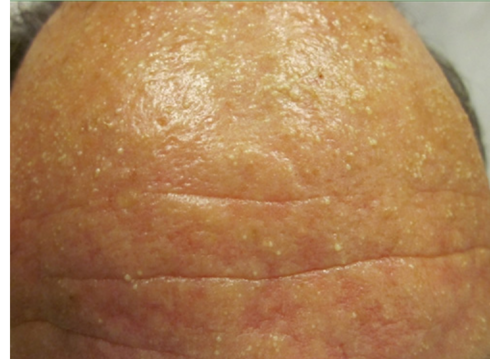

Figure 2. Grouped nonfollicularly centered pustules on the forehead.

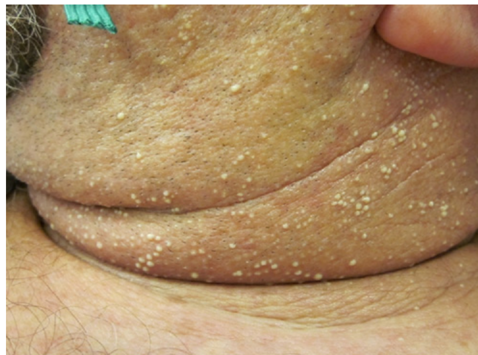

Figure 3. Grouped nonfollicularly centered pustules on the neck. Used with permission of Jennie A. Buchanan, MD, Department of Emergency Medicine, Rocky Mountain Poison and Drug Center, Denver Health and Hospital Authority, Denver, CO.

[Ann Emerg Med. 2011;58:508.]

A 58-year-old man presented to the emergency department (ED) with a 1-day history of rash and 3 days of nausea, vomiting, and diarrhea. His history was notable for recent hair transplantation and cephalexin use. He had finished his antibiotic course 5 days before presentation. He denied skin tenderness, oral ulcers, and history of skin disorders. On arrival, he had a pulse rate of 110 beats/min, respiratory rate of 32 breaths/min, blood pressure of 118/82 mm Hg, temperature of 40.9°C (105.6°F), and an oxygen saturation of 98% on 15 L/minute. About 24 hours before presentation, he noticed erythema in his groin, neck, and axillae and temperature to 40°C (104°F). The rash rapidly spread to his entire body, including his face (Figures 1-3). At presentation, systemic symptoms continued and rash persisted as diffuse erythematous reticulated rash with grouped, nonfollicularly centered pustules, with no vesicles or bullae.

For the diagnosis and teaching points, see page 516.
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technique in normovolemic and hypovolemic canines. *J Emerg Med.* 1989;7:123-127.
14. Shavit I, Hoffmann Y, Galbraith R, et al. Comparison of two mechanical intraosseous infusion devices: a pilot, randomized crossover trail. *Resuscitation.* 2009;80:1029-1033.
15. Levitan RM, Bortle CD, Snyder TA, et al. Use of a battery-operated needle driver for intraosseous access by novice users: skill acquisition with cadavers. *Ann Emerg Med.* 2009;54:692-694.
16. Warren DW, Kissoon N, Sommerauer JF, et al. Comparison of fluid infusion rates among peripheral intravenous and humerus, femur, malleolus, and tibial intraosseous sites in normovolemic and hypovolemic piglets. *Ann Emerg Med.* 1993;22:183-186.
17. Reades R, Studnek JR, Garrett J, et al. Comparison of first-attempt success between tibial and humeral intraosseous insertions during out-of-hospital cardiac arrest. *Prehosp Emerg Care.* 2011;15:278-281.
18. Simmons CM, Johnson NE, Perkin RM, et al. Intraosseous extravasation complication reports. *Ann Emerg Med.* 1994;23:363-366.
19. Orlowski JP, Jusius CJ, Petras RE, et al. The safety of intraosseous infusions: risks of fat and bone marrow emboli to the lungs. *Ann Emerg Med.* 1989;18:1062-1067.
20. Moen TC, Sarwark JF. Compartment syndrome following intraosseous infusion. *Orthopedics.* 2008;31:815.

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DIAGNOSIS:

Acute generalized exanthematous pustulosis after cephalexin use. A diagnosis of acute generalized exanthematous pustulosis as a result of cephalexin was made in the emergency department. The patient was admitted for 2 days and received systemic and topical steroids; the rash significantly improved.

The incidence of acute generalized exanthematous pustulosis is estimated to be 1 to 5 cases per million per year, and 90% are drug induced. Antibiotics are the most frequent cause. Acute generalized exanthematous pustulosis presents acutely with dozens of nonfollicular sterile pustules on a diffuse erythema predominantly in intertriginous areas and on the face. Fever and increased blood neutrophil levels are common. Treatment consists of cessation of causative agent, supportive care, and use of steroids in severe cases.[1]

REFERENCE

1. Sidoroff A, Halevy S, Bavinck JNB, et al. Acute generalized exanthematous pustulosis (AGEP): a clinical reaction pattern. *J Cutan Pathol*. 2001;28:113-119.