Acta Dermatovenerol APA

Acta Dermatovenerologica
Alpina, Pannonica et Adriatica

2015;24:11-12
doi: 10.15570/actaapa.2015.4

Connubial ecthyma gangrenosum in a healthy couple: a consort counterpart of a "kissing ulcer"

Miloš D. Pavlović[1] ✉, Metka Adamič[1]

Abstract

Ecthyma gangrenosum is a relatively rare cutaneous infection generally thought to be linked to sepsis or bacteremia caused by *Pseudomonas aeruginosa* in severely ill or otherwise immunocompromised patients. Here we report on a healthy middle-aged couple with a typical ecthyma gangrenosum lesion on their thighs, obviously caused by spreading through intimate contact between two skin surfaces: a sort of "consort kissing ulcer." Although they declined to allow microbiological sampling, the lesions gradually but completely regressed with oral ciprofloxacin treatment, leaving atrophic scars.

Keywords: case report, skin infection, ecthyma gangrenosum

Received: 1 December 2014 | **Returned for modification:** 22 December 2014 | **Accepted:** 12 January 2015

Introduction

Ecthyma gangrenosum is a rare cutaneous infection, most commonly caused by the Gram-negative bacterium *Pseudomonas aeruginosa* (1, 2). It typically starts with an erythematous or purpuric macule and rapidly develops into a hemorrhagic bulla or pustule surrounded by a narrow pink to violaceous halo. Then it ruptures to become a round ulcer with a necrotic black or a gunmetal-gray scab surrounded by erythema (2). The hemorrhagic nature of the infection is a consequence of the invasion of venules by the bacteria resulting in secondary thrombosis of arterioles (3). Lesions are usually located on the buttocks and lower extremities, and in the anogenital or axillary region. Major dermatology textbooks state that ecthyma gangrenosum occurs in severely ill and debilitated persons, immunosuppressed patients, and cancer patients with underlying sepsis or bacteremia (1, 2).

Here we present a clinical scenario of connubial or consort ecthyma gangrenosum in an otherwise healthy couple not described previously.

Case report

A 49-year-old woman and her 53-year-old partner came to our dermatology center for an extremely painful red and ulcerated plaque on their thighs. The lesions appeared in both of them roughly simultaneously 2 to 3 weeks prior to presentation as a small reddish macule that evolved into a hemorrhagic bulla that ruptured and transformed into an enlarging ulcer. They were otherwise healthy, active, taking no medications, and had not recently traveled abroad or visited public pools or spas. On examination, there was an erythematous indurated plaque 3 cm wide with ulcers 1.5 and 2 cm wide covered with an adherent black-gray eschar (Figure 1). The ulcer base and periphery were exquisitely painful on palpation. Interestingly, the lesions arose on her right thigh and his left thigh approximately corresponding to sites of tight contact of their thighs. Regional lymph nodes were not enlarged. They were afebrile and, apart from the local pain and enlarging ulcers, there were no other symptoms. We explained the probable nature of the lesions to them and ordered ulcer swabs, blood cultures, and

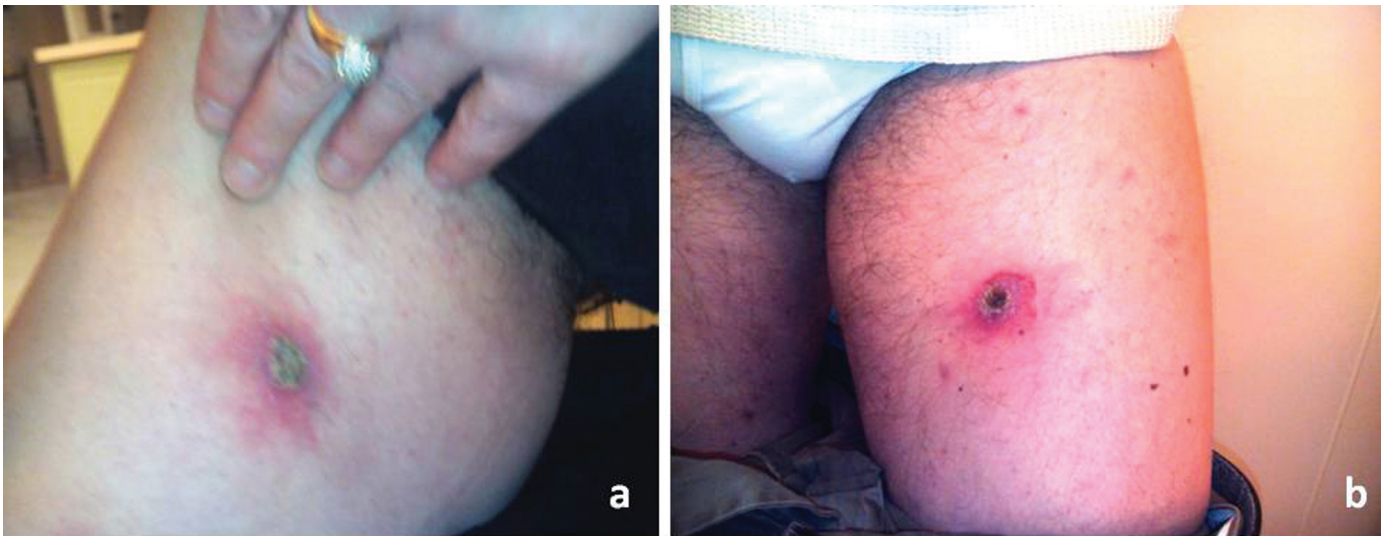

Figure 1 | Tender erythematous plaques on the thighs with the central ulceration covered with a black-grayish eschar: a) on the right thigh of the woman, and b) on the left thigh of her male partner.

[1]Parmova Dermatology Center, Ljubljana, Slovenia. ✉ **Corresponding author: milos.pavlovic@dcp.si**

complete blood cell counts. However, they declined to have the suggested tests and their general practitioner prescribed them oral ciprofloxacin and mupirocin ointment. In a few days the scabs fell off and the ulcers began to heal. The lesions completely healed with atrophic scarring 2 weeks later.

Discussion

A recent comprehensive literature review showed that, although ecthyma gangrenosum is generally caused by *P. aeruginosa*, in 26% of patients other bacteria (other strains of *Pseudomonas*, *Aeromonas*, *Escherichia*, *Klebsiella*, *Citrobacter*, *Staphylococcus*, etc.) and fungi were found as the responsible agent (4). Sepsis was documented in less than half of patients described in the literature. Roughly 40% of patients diagnosed with ecthyma gangrenosum caused by various bacteria were immunocompetent without any underlying disease; the exception is cases caused by fungi, in which the majority of those affected were immunocompromised (4).

Our patients' case is interesting in several respects. They were completely healthy and without any systemic signs of infection. The lesions appeared precisely at the sites where their thighs made tight contact, resembling cutaneous "kissing ulcers": a pair of ulcers usually caused by an infectious agent in which a second ulcer develops due to spread of the agent by autoinoculation onto the contacting, usually contralateral, skin surface (e.g., chancroid ulcers on the labia) (5). In this special case, reminiscent of connubial contact allergic or irritant dermatitis (6, 7), the ecthyma gangrenosum lesions appeared on the "mirrored" skin surfaces of two partners, strongly suggesting a direct contact route of infection. Hence, the ulcers may be dubbed "consort kissing ulcers."

Unfortunately, our patients declined to have them sampled for possible infectious agents. However, the history, clinical picture, and response to antibiotic therapy was convincing enough to exclude other similar conditions frequently cited in the literature: warfarin-induced skin necrosis, calciphylaxis, septic emboli, disseminated intravascular coagulation, necrotizing vasculitides, pyoderma gangrenosum, necrosis secondary to the use of vasoactive drugs, and so on (4).

In sum, the diagnosis of ecthyma gangrenosum should also be considered in healthy subjects without signs of systemic infection, and may be transferred by direct skin-to-skin contact, sometimes producing a clinical picture of "kissing ulcers."

References

1. Cohen MS, Rutala WA, Weber DJ. Chapter 180: Gram-negative coccal and bacillary infections. In: Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ, Wolff K. eds. Fitzpatrick's dermatology in general medicine, 8e. New York: McGraw-Hill; 2012. http://accessmedicine.mhmedical.com/ content.aspx?bookid=392 &Sectionid=41138907. Accessed November 29, 2014.
2. James WD, Berger TG, Elston DMD. Bacterial infections. In: Andrew's diseases of the skin: clinical dermatology, 11e. Elsevier; 2011, pp 247-87.
3. Downey DM, O'Bryan MC, Burdette SD, Michael JR, Saxe JM. Ecthyma gangrenosum in a patient with toxic epidermal necrolysis. J Burn Care Res. 2007;28:198-202.
4. Vaiman M, Lazarovitch T, Heller L, Lotan G. Ecthyma gangrenosum and ecthyma-like lesions: review article. Eur J Clin Microbiol Infect Dis. 2014. [Epub ahead of print].
5. Lautenschlager S. Chapter 202: Chancroid. In: Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ, Wolff K. eds. Fitzpatrick's dermatology in general medicine, 8e. New York: McGraw-Hill; 2012. http://accessmedicine.mhmedical.com/ content.aspx?bookid=392&Sectionid=41138932. Accessed November 29, 2014.
6. Strauss RM, Bäte J, Pring D. Connubial contact dermatitis: an unusual pregnancy dermatosis. Acta Derm Venereol. 2003;83:316.
7. Luján-Rodríguez D, Peñate-Santana Y, Hernández-Machín B, Borrego L. Connubial allergic contact dermatitis to Euxyl K 400. Contact Dermatitis. 2006;54:122-3.