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## CASES AND RESEARCH LETTERS

### Facial Ecthyma Gangrenosum in 2 Preterm Neonates<sup>☆</sup>

#### Ectima gangrenoso facial en dos recién nacidos pretérmino

To the Editor:

Ecthyma gangrenosum (EG) is a bacterial skin infection generally caused by *Pseudomonas aeruginosa*, although it may also be caused by other organisms.<sup>1</sup> It commonly appears in the context of *Paeruginosa* sepsis, but the skin is occasionally the primary focus.<sup>2</sup>

EG usually appears in immunocompromised patients. The characteristic clinical presentation is an erythematous macule that develops into a hemorrhagic vesicle and finally a necrotic ulcer.

EG should be considered in the differential diagnosis of ulcerous skin lesions in preterm patients because a rapid diagnosis permits early treatment and thus reduces the high mortality associated with *Paeruginosa* sepsis.

We report on 2 cases of EG in newborn infants. The first patient was a first-born twin girl delivered by caesarean section at 30 weeks' gestation due to maternal preeclampsia. On the fifth day of life neutropenia with respiratory worsening was detected and antibiotic treatment with vancomycin and amikacin was started due to suspected sepsis. On the eighth day 2 erythematous lesions appeared in the nasal area and on the right cheek. After 24 hours they developed into necrotic ulcers with a base covered by whitish slough and abundant yellowish secretion. Similar lesions were also seen on the hard palate and tongue (Fig. 1). Blood and samples from the lesions were taken for culture and topical gentamicin was added to the treatment because of suspected bacterial skin infection.

Two days later, the patient showed clinical deterioration consistent with sepsis and the cultures were found to be positive for *Paeruginosa*. Meropenem was added to the treatment regimen and the patient progressed favorably. The skin lesions resolved, leaving serious aesthetic sequelae with a loss of substance in the nasal septum and columella.

The second case involved a second-born female triplet delivered by caesarean section at 27 weeks' gestation. On



**Figure 1** Patient 1. Necrotic ulcers in the right nasal cavity and on the upper lip, right cheek, and tongue.

the second day of life neutropenia was detected, requiring treatment with a colony-stimulating factor. However, on the next day the infant began to show signs of sepsis that coincided with the appearance of a nasal ulcer with whitish slough at the base and abundant yellowish exudate. Based on the suspicion of EG and *Paeruginosa* sepsis, meropenem and amikacin were administered. Despite these measures, the patient died at 4 days of life. Cultures of blood and samples taken from the ulcer were positive for *Paeruginosa*.

The incidence of EG in patients with *Paeruginosa* bacteremia is between 1% and 3%.<sup>3</sup> *Paeruginosa* causes up to 5.7% of nosocomial sepsis cases in premature newborns, but few cases involving EG have been described.

In the general population EG is most frequently located in the anogenital region, on the extremities, and on the trunk, but rarely on the face or neck.<sup>4</sup> By contrast, most

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of the cases of preterm EG in the literature involve the face. This characteristic formed the basis for the term *noma neonatorum*, coined by Ghosal et al.<sup>5</sup> because of the clinical similarity between this type of EG and noma (cancrum oris),<sup>6,7</sup> a disease that is predominantly caused by *Fusobacterium necrophorum* and *Prevotella intermedia*<sup>8,9</sup> and described in children aged 2 years and older and adults living in unsanitary conditions. Freeman et al.<sup>10</sup> later included these cases of *noma neonatorum* in the description of EG because of their common etiologic pathogen, *Paeruginosa*, which is practically inexistent in classic noma.

The diagnosis of EG, while mainly clinical, must be confirmed by cultures taken from the lesions and, in most cases, a *Paeruginosa*-positive blood culture. These analyses allow EG to be distinguished from other types of lesions in the differential diagnosis, such as deep mycosis or lesions caused by anaerobic pathogens. The main goal of treatment is to resolve the underlying bacteremia, which affects prognosis, and should include synergistic antibiotics generally consisting of an aminoglycoside and an antipseudomonal  $\beta$ -lactam. The lesion should be treated with topical antibiotics and mechanical or chemical debridement.

In conclusion, EG must be included in the differential diagnosis of ulcerous lesions in preterm patients, especially in cases with associated neutropenia, bearing in mind the tendency for these lesions to appear on the face. Rapid identification can allow for early and adequate antibiotic treatment and reduce the high mortality associated with *Paeruginosa* sepsis, especially in lesions that appear days before clinical sepsis as described in the first of these 2 patients.

## References

1. Reich HL, Williams Fadeyi D, Naik NS, Honing PJ, Yan AC. Nonpseudomonal ecthyma gangrenosum. *J Am Acad Dermatol*. 2004;50:5114-7.
  2. Versapuech J, Léauté-Labrèze C, Thedenat B, Taieb A, Ragnaud JM. Ecthyma gangréneux à *Pseudomonas aeruginosa* sans septicémie chez une patiente neutropénique. *Rev Med Interne*. 2001;22:877-80.
  3. Rhody C. Bacterial infections of skin. *Prim Care*. 2000;27:459-73.
  4. Funk E, Ivan D, Gillenwater AM. Ecthyma gangrenosum: an unusual cutaneous manifestation of the head and neck. *Arch Otolaryngol Head Neck Surg*. 2009;135:818-20.
  5. Ghosal SP, Sen Gupta PC, Mukherjee AK, Choudhury M, Dutta N, Sarkar AK. Noma neonatorum: Its aetiopathogenesis. *Lancet*. 1978;2:289-91.
  6. Tempest MN. Cancrum oris. *Br J Surg*. 1966;53:949-69.
  7. Atiyeh BS, Hashim HA, Rubeiz MT, Hamdan AM, Bitar FF, Serhal HM. Necrotising infection of the orofacial tissues in neonates (*noma neonatorum*). Case report. *Scand J Plast Reconstr Surg Hand Surg*. 1998;32:343-5.
  8. Paster BJ, Falkler WA, Enwonwu CO, Idigbe EO, Savage KO, Levanos VA, et al. Prevalent bacterial species and novel phenotypes in advanced noma lesions. *J Clin Microbiol*. 2002;40:2187-91.
  9. Enwonwu CO, Falkler WA, Idigbe EO. Oro-facial gangrene (*noma/cancrum oris*): pathogenetic mechanisms. *Crit Rev Oral Biol Med*. 2000;11:159-71.
  10. Freeman AF, Mancini AJ, Yogev R. Is *noma neonatorum* a presentation of ecthyma gangrenosum in the newborn? *Pediatr Infect Dis J*. 2002;21:83-5.
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## Cutaneous CD8+ T-cell Infiltrates Associated With Human Immunodeficiency Virus<sup>☆</sup>

### Infiltración cutánea por linfocitos T CD8+ asociada a virus de la inmunodeficiencia humana

To the Editor:

Inflammatory skin diseases are common in patients infected by the human immunodeficiency virus (HIV), especially

in those who are severely immunocompromised. In addition, there is a marked association between inflammatory skin diseases and aggressive lymphomas, particularly in cases of extranodal disease. Although most cases with this association are B-cell lymphomas, the most common primary cutaneous lymphomas are cutaneous T-cell tumors.

A 60-year-old man with mild chronic obstructive pulmonary disease for which he occasionally used an inhaler presented with intensely pruritic skin lesions on exposed areas that had first appeared 8 months previously. He also reported generalized hair loss, weight loss, and a sensation of unmeasured temperature variability. Physical examination revealed generalized lichenified and erythematous plaques, together with alopecia universalis and signs of inflammatory infiltration on the face, especially above the eyebrows, giving him a leonine appearance (Fig. 1). Palmo-plantar involvement, lymphadenopathy, and visceromegaly were not observed.

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