

## CLINICAL IMAGE

# Ecthyma gangrenosum: A view of blood on the skin

Fábio Murteira  | Nuno Leal | Carina Silva

Internal Medicine Department, Centro Hospitalar Vila Nova de Gaia/Espinho, Vila Nova de Gaia, Portugal

**Correspondence**

Fábio Murteira, Internal Medicine Department, Centro Hospitalar Vila Nova de Gaia/Espinho, Vila Nova de Gaia, Porto, Portugal.  
Email: fabio.murteira@gmail.com

**Abstract**

Cutaneous findings should be actively sought in suspected cases of sepsis, as some of them (such as ecthyma gangrenosum) may provide clues about the infectious agent involved and the patient's immunosuppression status.

## 1 | CASE PRESENTATION

A 24-year-old woman, with no relevant medical history, presented at the hospital with sudden high fever (T 40.0°C, no evident infectious focus), leukopenia (1430/ $\mu$ L), and severe neutropenia (80/UL); remaining analytical study and abdominal ultrasound were normal. On the first day of hospitalization, three pustular skin lesions with an erythematous halo appeared, not painful or pruritic, in different body areas

(Figure 1). On the 2nd day, bacteremia by *Pseudomonas aeruginosa* (PA) was found. The cutaneous findings were interpreted as ecthyma gangrenosum (EG), a rare but very typical finding of PA bacteremia in immunocompromised individuals.<sup>1</sup> These lesions appear as painless erythematous papules, progressing to pustules/blisters; after exudation, they result in gangrenous ulcers with erythematous and hardened edges (Figure 2).<sup>2</sup> The patient evolved positively under targeted



**FIGURE 1** Injury at an early stage, with pustular content



**FIGURE 2** Injury in a more advanced stage, already ulcerated

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2021 The Authors. *Clinical Case Reports* published by John Wiley & Sons Ltd.

antibiotics (ceftazidime, 7 days), despite maintaining severe neutropenia. Later, she was diagnosed with aplastic anemia and allograft of hematopoietic cells was performed. With these clinical images, the authors intend to alert to EG as a rare (it develops in 1.3%-13% patients with PA sepsis), but typical and sometimes initial, finding of an immunodepression state. This identification may allow act with some precious hours to days of advantage.

### CONFLICT OF INTEREST

None declared.

### AUTHOR CONTRIBUTIONS

FM: contributed to the clinical management of the patients, wrote the first draft, and managed all the submission process. NL: contributed to the clinical management of the patient. CS: revised the manuscript.

### ETHICAL APPROVAL

The authors have no ethical conflicts to disclose. Informed consent was obtained from the patient.

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

### ORCID

Fábio Murteira  <https://orcid.org/0000-0003-0160-1054>

### REFERENCES

1. Sacks CA. Ecthyma gangrenosum. *N Engl J Med.* 2017;377(23):e32.
2. Rodriguez JA, Eckdart P, Lemos-Ramirez JC, Niu J. Ecthyma gangrenosum of scrotum in a patient with neutropenic fever. *Am J Case Rep.* 2019;20:1369-1372.

**How to cite this article:** Murteira F, Leal N, Silva C. Ecthyma gangrenosum: A view of blood on the skin. *Clin Case Rep.* 2021;9:e04259. <https://doi.org/10.1002/ccr3.4259>