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Clinical Image

A Rare Case of Pyoderma Gangrenosum Associated with Acute Myeloid Leukemia

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Keywords: Pyoderma Gangrenosum; Acute Myeloid Leukemia; Pancytopenia.

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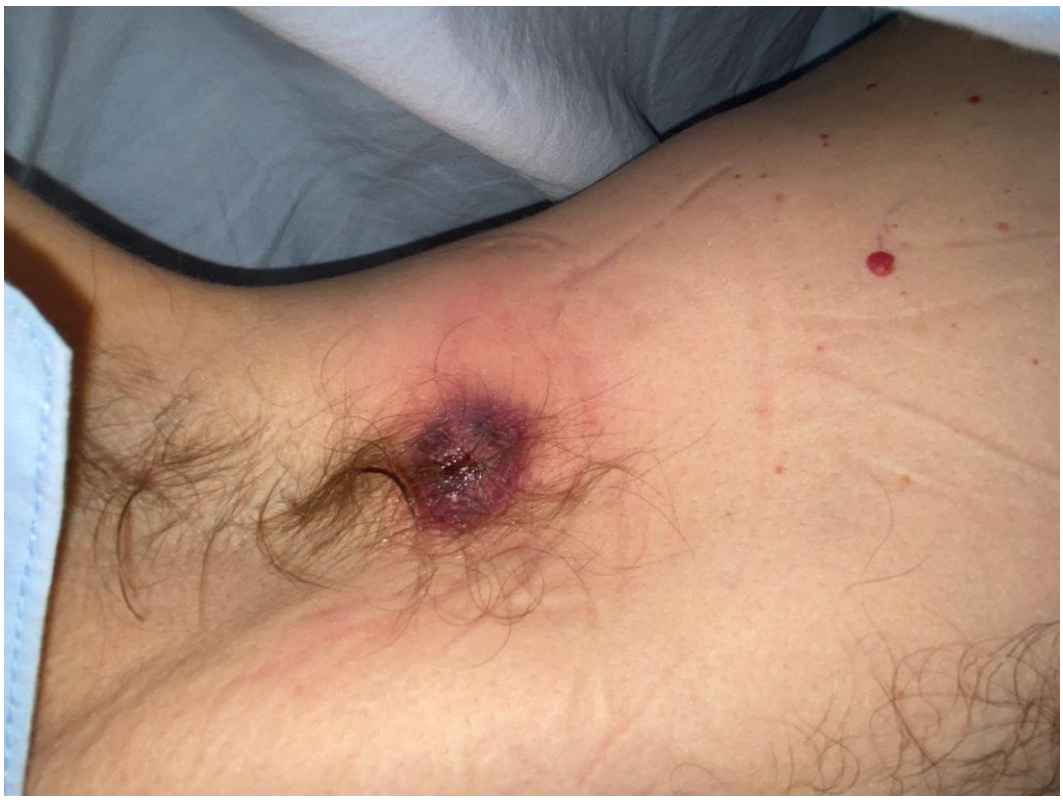

Figure 1: Lesion with a long axis of around 4cm in the left axillary region, painful, circular, ulcerated, violaceous, with slightly raised margins and a necrotic base with hemorrhagic exudate inside (before starting therapy).

Man, 55 years old, smoker, with no other history or medication. He went to the emergency room after being referred to the laboratory due to thrombocytopenia. He only reported easy bruising in the last 3 months. Physical examination was unremarkable. Analytically with severe pancytopenia (leukocytes 1.94x10^9/L; hemoglobin 9.5 g/dL; platelets

$12x10^9$/L). Analytical study highlighting a deficiency in folic acid (5.90 mmol/L) and vitamin B12 (70 pmol/L), research for cytomegalovirus, Epstein-Barr virus, parvovirus B_{19} and human immunodeficiency virus was negative. No response to daily replacement of folic acid and vitamin B_{12} after 14 days, with a myelogram revealing morphologically myelomonocytic acute myeloid leukemia.

During this period, he presented a lesion with a long axis of around 4cm in the left axillary region, which was painful, rapidly progressive, circular, ulcerated, violaceous, with slightly raised margins and a necrotic base with haemorrhagic exudate inside (Figure 1) – after discussion in multidisciplinary team, the diagnosis of pyoderma gangrenosum was assumed to be the most likely, given the characteristics mentioned, but a biopsy was carried out to establish a definitive diagnosis with histopathological findings of neutrophilic dermatosis compatible with pyoderma gangrenosum. Therapy was started with Dexamethasone 8mg divided into two daily doses and induction of chemotherapy. On the 30th day after starting therapy, the lesion was in the healing phase.

Pyoderma gangrenosum is a rare chronic inflammatory dermatosis of unknown etiology, with a maximum incidence between the ages of 20 and 50 and more in women.1,2 It manifests itself as deep ulcers (more common on the lower limbs), painful, erythematous-violet border and rapidly progressive. In around 50% of cases, it appears in isolation, but it can be associated with a systemic disease, most frequently inflammatory bowel diseases and rheumatoid arthritis, followed by malignant neoplasms and hematological diseases [3-6].

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Conflicts of Interest: None.

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References

1. Ferrándiz-Pulido C, García-Patos Briones V. Pioderma gangrenoso. Diagnóstico y tratamiento. Piel. 2008;23(1):24–9. https://doi.org/10.1016/s0213-9251(08)70969-9.
2. Schmieder SJ, Krishnamurthy K. Pyoderma Gangrenosum. PubMed; StatPearls Publishing. 2021. Available from: https://www.ncbi.nlm.nih.gov/books/NBK482223/.
3. Konopka CL, Padulla GA, Ortiz MP, Beck AK, Bitencourt MR, Dalcin DC. Pioderma Gangrenoso: um Artigo de Revisão. J Vasc Bras. 2013;12(1):25–33. https://doi.org/10.1590/s1677-54492013000100006.
4. Brooklyn T, Dunnill G, Probert C. Diagnosis and treatment of pyoderma gangrenosum. BMJ. 2006;333(7560):181–4. https://doi.org/10.1136/bmj.333.7560.181.
5. George C, Deroide F, Rustin M. Pyoderma gangrenosum – a guide to diagnosis and management. Clin Med (Lond). 2019;19(3):224–8. https://doi.org/10.7861/clinmedicine.19-3-224.
6. Maier H, Diem E, Gotschim A, Ortel B. Pyoderma gangrenosum as a precursor of myeloid leukemia. Hautarzt. 1995;46(9):647–50. https://doi.org/10.1007/s001050050313.