

## Case report

### Cribriform scar revealing acute myeloblastic leukemia type 2



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#### Abstract

Pyoderma gangrenosum is a sterile inflammatory neutrophilic dermatosis characterized by recurrent skin ulcers with mucopurulent or hemorrhagic exudate, which can be reactive to or associated with several pathologies, the search for associated pathologies must be systematic and oriented towards hemopathy in young subjects, as in the case of our patient presenting for a cribriform scar revealing an acute myeloid leukemia.

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## Introduction

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Pyoderma gangrenosum (PG) is a rare sterile inflammatory neutrophilic dermatosis that can be reactive or associated with several pathologies. We report a consultant case of pyoderma gangrenosum in the cribriform scar stage revealing acute myeloid leukemia (AML).

## Patient and observation

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This is a 24-year-old patient with no significant pathological history who reported the onset of pustular lesions in the right arm evolving into ulceration and centrifugal spreading in which dermatological examination found a cribriform scar in the circumferential right arm at the anterior (Figure 1 A) and posterior (Figure 1 B) face measuring 20 cm, an atrophic scar in the right elbow (Figure 2) and the dorsal side of the right hand (Figure 3). The rest of the examination did not find adenopathy or hepatosplenomegaly. The patient benefited in another care facility from a skin biopsy showing a pyoderma gangrenosum. The biological balance showed C-reactive protein (CRP) at 119 mg/l, monocytosis at 3160 element/l and bicytopenia with Hb at 10.6 g/dL, VGM and CCMH normal, thrombopenia at 47000/l, hyperleucocytosis at 22090/l, lymphopenia at 600/l. The blood smear objectified 29% of blasts, hence the realization of a sternal puncture. The medullogram showed a rich hypercellular bone marrow infiltrated by 40% blasts with immunophenotyping positive for myeloperoxidase. At the end of these results, the diagnosis of acute myeloid leukemia (AML) type 2 according to the FAB classification was selected. The patient was transferred to an onco-hematology ward for further management.

## Discussion

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Pyoderma gangrenosum is a rare, non-infectious ulcerative inflammatory skin disease that can be isolated or most often associated with inflammatory bowel disease, rheumatic, hematological or neoplasia. Several cases have shown a relationship between pyoderma gangrenosum and malignant hemopathy [1], such as myelodysplastic syndrome but without established pathophysiological link, it clinically results in one or more painful ulcers having an inflammatory border with purulent clapiers. Their expansion is rapid, and their evolution is chronic [2]. PG is now attached to neutrophilic dermatoses. The peculiarity of this observation is the discovery of acute myeloblastic leukemia in a young man presenting at the scar stage of a pyoderma gangrenosum. The association of this neutrophilic dermatosis with hemopathy is reported in 7% of cases. These are usually acute myeloblastic leukemia or chronic myeloid leukemia [3]. AML can be detected at any age, but only 25% of cases are diagnosed before the age of 25. There is a significant increase in the frequency of this type of leukemia after the age of 40 [4]. Treatment is mainly based on chemotherapy.

## Conclusion

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Once the diagnosis of PG has been established, the search for associated pathologies must be systematic and oriented towards hemopathy in young subjects, especially males.

## Competing interests

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The authors declare no competing interests.

## Authors' contributions

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All the authors have read and agreed to the final manuscript.

## Figures

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**Figure 1:** cribriform scar in the circumferential right arm at the anterior (A) and posterior (B) face measuring about 20cm

**Figure 2:** atrophic scar in the right elbow

**Figure 3:** atrophic scar on the dorsal side of the right hand

## References

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**Figure 1:** cribriform scar in the circumferential right arm at the anterior (A) and posterior (B) face measuring about 20cm



**Figure 2:** atrophic scar in the right elbow



**Figure 3:** atrophic scar on the dorsal side of the right hand