Pyoderma Gangrenosum: A Comprehensive Analysis of Comorbidities and Prognosis

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INTRODUCTION

Pyoderma Gangrenosum (PG) is a rare neutrophilic dermatosis that, in the majority of cases, manifests with rapidly progressive ulcers. It is frequently associated with systemic comorbidities such as inflammatory bowel disease (IBD), rheumatoid arthritis (RA), seronegative arthritis, and hematologic malignancies. [1]
Due to the absence of standardized diagnostic criteria, clinical heterogeneity, and limited treatment evidence, its management remains challenging.[2,3,4]
This retrospective study evaluates clinical outcomes in patients with PG, focusing on therapeutic strategies, comorbidity prevalence, and prognostic trends based on updated data.

METHODS

Data from our cohort of patients with PG diagnoses were retrospectively analyzed using interviews and medical records. Collected parameters included age at diagnosis, comorbidities (pre-existing and post-diagnosis), affected anatomical sites, therapeutic interventions, wound re-epithelialization outcomes, relapse rates and cause of death.

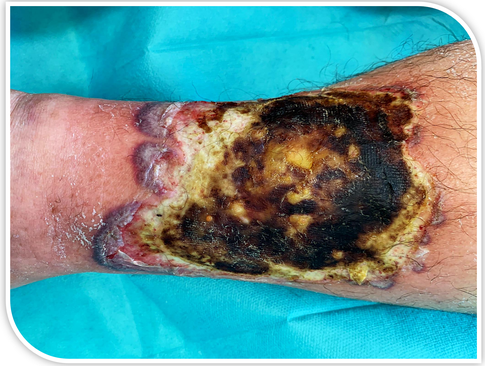
RESULTS

The dataset includes 59 patients. Among these, 36 (56.3%) were alive at the time of analysis. The mean age at diagnosis was 66.5 years.
Five patients presented neoplasms at diagnosis, including two with hematologic malignancies and three with solid tumors.
Pre-existing comorbidities included IBD in 6 patients, of whom one also presented RA and one seronegative arthritis. One patient had primary biliary cirrhosis, and four had psoriasis.
Following the PG diagnosis, new comorbidities emerged, including RA in one patient with a family history of autoimmune disease, paradoxical psoriasis during anti-TNF-α therapy in two patients (one of whom had a familial history of psoriasis), arterial hypertension in 15 patients.
Notably, 41.7% of alive patients did not develop new comorbidities post-diagnosis.
Of the 28 deceased patients, causes of death included myocardial infarction, renal failure, COVID-19 infection, and pancreatic cancer.
Complete wound re-epithelialization was achieved in 61.1% of the surviving patients, with no relapses recorded. However, 47.2% of these patients required ongoing treatment for associated conditions such as RA, seronegative arthritis, and ulcerative colitis. The most frequently administered treatments were anti-IL agents (16.7%) and anti-TNF-α therapies (19.4%).

Parameter	Value
Total patients	59
Alive at analysis time	36 (56.3%)
Mean age at diagnosis	66.5 years
Paraneoplastic	5 patients
- Hematologic malignancies	2 patients
- Solid tumors	3 patients
Pre-existing IBD	6 patients
Pre-existing RA or seronegative arthritis	2 patients
Primary biliary cirrhosis	1 patient
Psoriasis	4 patients
New comorbidities post-diagnosis	58.3% of alive patients
- Rheumatoid arthritis (RA)	1 patient
- Paradoxical psoriasis (anti-TNF-α)	2 patients
- Arterial hypertension	Observed in 15 cases
Causes of death	
- Myocardial infarction	3 patients
- Renal failure	2 patients
- COVID-19 infection	1 patient
- Pancreatic cancer	1 patient
Complete wound re-epithelialization	61.1% of alive patients
Ongoing treatment for comorbidities	47.2% of alive patients
Anti-IL therapy	16.7%
Anti-TNF-α therapy	19.4%

DISCUSSION

This analysis underscores the considerable systemic burden in PG patients, frequently compounded by comorbidities such as IBD, RA, psoriasis, and malignancies. Additionally, the appearance of new systemic comorbidities following a PG diagnosis highlights the need for vigilant, continuous monitoring.
Although the relatively high rate of complete wound healing (61.1%) is encouraging, nearly half of the patients still require long-term systemic therapy. This need arises not only from the chronic and relapsing nature of PG itself, but also from coexisting comorbidities that demand ongoing treatment.
These findings emphasize the importance of a personalized, multidisciplinary management approach that addresses both cutaneous lesions and systemic conditions. Future research should investigate the long-term impact of biologic therapies and the progression of comorbidities in PG patients.



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