

“What is this large ulcer on my leg?”

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A 47-year-old woman presents with a very painful large ulcer on her posterior-lateral calf, which has persisted for six weeks. The lesion started as a small bump with a white head on top and rapidly started to enlarge and ulcerate. She denies any history of trauma to the leg. She is currently tapering the dose of oral steroids for her inflammatory bowel disease (IBD) relapse.

What is your diagnosis?

Pyoderma gangrenosum (PG) is a rare, inflammatory disease of unknown etiology, characterized by neutrophilic infiltrate of the dermis and destruction of tissue. It affects mainly females between 40- to 60-years-of-age, but can appear in younger people as well. Multiple associations have been reported, including:

- IBD,
- connective tissue disease (rheumatoid arthritis, lupus erythematosus),
- IgA paraproteinemia,
- infections,
- drugs and
- malignancy.

Classically, PG starts as a small pustule that rapidly becomes ulcerated with a prominent undermined border and boggy necrotic base that heals with characteristic cribriform (sieve-like) scars.



Figure 1. Large ulcer on posterior-lateral calf.

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There are four different types of PG (Table 1). Diagnosis of PG is usually made after the exclusion of other causes of ulcerations, especially infections and malignancy (e.g., culture for bacteria and deep fungal agents or skin biopsy).



Table 1
The four different types of pyoderma gangrenosum

Types	Features	Association
Pustular	<ul style="list-style-type: none">• Dramatic onset with rapid development of sterile painful pustules	<ul style="list-style-type: none">• IBD
Bullous	<ul style="list-style-type: none">• The roof of blister necroses rapidly, so close inspection of border is required	<ul style="list-style-type: none">• Hematologic dyscrasias• Malignancy
Ulcerative	<ul style="list-style-type: none">• Appears first as pustule then ulcerates• Surrounded by erythema or a bluish edge (due to undermining from necrosis) and the base is full of purulent material• Located more commonly on legs or sites of trauma	<ul style="list-style-type: none">• IBD• Arthritis• Malignancy• Monoclonal gammopathy
Vegetative	Superficial granulomatous pyoderma	<ul style="list-style-type: none">• Usually no association

IBD: Inflammatory bowel disease

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Topical therapy includes fluorinated steroids ointment or tacrolimus ointment with or without occlusion. An intralesional steroid

injection can also be used at the borders of the ulcer.

Systemic therapy includes:

- oral prednisone,
- cyclosporine,
- dapsone,
- minocycline,
- clofazimine,
- mycophenolate mofetil and
- tacrolimus.

Most recently, using biological agents, such as infliximab, have shown good results.

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