



Neutrophilic Folliculitis

As An Early Sign Of Pyoderma Gangrenosum



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Introduction:

Pyoderma gangrenosum (PG) is a rare dermatologic manifestation of systemic disease, most often associated with inflammatory bowel disease (IBD). It is necessary to recognize neutrophilic folliculitis as an early manifestation of PG in order to rule out other potential causes of similar skin lesions and to begin therapy promptly to prevent disease progression.

Clinical Vignette:

A 27 year old woman with ulcerative colitis (UC) maintained on azathioprine presented with two months of fatigue, weight loss and worsening bloody diarrhea. She was treated for a flare of UC with IV methylprednisolone and her symptoms improved.



Figure 1: Papulopustular lesions from our patient consistent with an early form of PG.

Follow-Up:

Two weeks later she returned with a week-long history of explosive papular to papulopustular lesions on her legs. Given the combination of immunosuppression and underlying IBD, the differential diagnosis included infectious lesions, erythema nodosum and atypical PG.

Biopsy Results:

Skin biopsy revealed a dense, predominantly neutrophilic infiltrate within the superficial dermis with involvement of several follicular units. Partial fibrin thrombi were seen in several of the involved vessels, but frank changes of vasculitis were not seen. Given the clinical context of this case, the neutrophilic folliculitis was consistent with that associated with pustular PG, either as a mild form or an early stage of the condition.

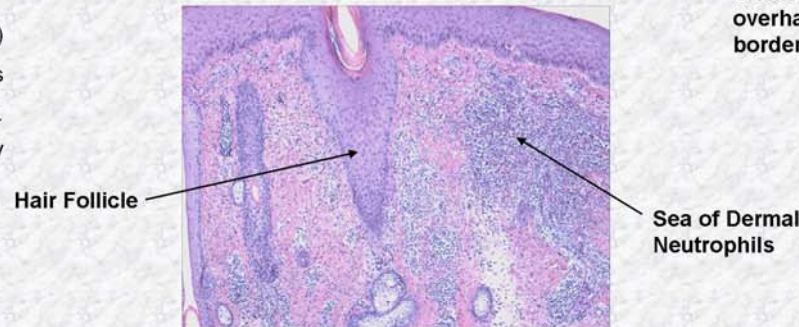


Figure 2: Histology of the lesion revealed neutrophilic folliculitis consistent with pustular PG.

Management:

Medical management of PG consists of both local and systemic supportive therapy. PG may resolve with treatment of the underlying IBD. Local therapy should include pain relief, prevention or treatment of secondary infection, and ensurance of wound healing. Of note, bowel surgery should not be considered as therapy for skin lesions as recurrence is common. The patient was treated with an extension of her oral steroid taper of methylprednisolone, which led to complete resolution of the lesions in several weeks.

Discussion:

PG may recur intermittently; such episodes are unpredictable and may happen years after the initial episode. Prolonged maintenance therapy is not required in most patients. PG is a diagnosis of exclusion and practitioners should therefore perform a thorough history and physical exam, having a low-threshold for biopsy.

Violaceous, overhanging borders



Cribriform Scarring

Figure 3: Example of burrowing ulcerative PG lesion of mediolateral tibia exhibiting destructive necrosis; from a separate patient seen at UVA.

Conclusion:

It is imperative to thoroughly evaluate skin lesions in patients with IBD. Although PG is a rare lesion, it should not be overlooked as it can be a progressive and dangerous process, as exhibited in the above image of ulcerative PG. This case of neutrophilic folliculitis as an early sign of PG demonstrates that early and accurate diagnosis can avoid significant morbidity and possible mortality from ulcerative lesions. While the diagnosis cannot be made based on histopathology alone, it is an important step in narrowing the differential diagnosis. This is particularly true in atypical-appearing lesions, where neutrophilic folliculitis may be an important variant.