Merging the Evidence and the Art: Diagnosing Crohn's Disease From Pyoderma Gangrenosum

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Abstract

The dermatologic exam is essential in evaluating cases of suspected inflammatory bowel disease (IBD).

Pyoderma gangrenosum (PG) is a potential cutaneous finding.

It classically presents as skin ulceration.

It may be mistaken for other causes of ulceration.

We detail an 8th decade patient with no prior history of IBD who presented with a large leg ulcer and new onset bloody stools, later diagnosed with Crohn's disease.

Case Description

A 73 year old African American male with history of diabetes mellitus and hypertension presented with painful ulcerative leg lesions.

Noted initially as a "scab" with rapid 2 week progression to that shown (figure 1).

Additional history was pertinent for intermittent bloody stools of similar duration. He denied past similar symptoms and review of systems was otherwise negative.

Serology was notable for severe iron deficiency anemia with **hemoglobin** of 2.7 g/dl, **MCV** of 69.2 fL, **iron** of 16 ug/dL and **transferrin saturation** of 6%.

After 3- units blood transfusion and empiric IV antibiotics, the admitting service requested consults for endoscopic evaluation and skin biopsy.

Colonic mucosa was notable for multiple ulcers and skip lesions of the sigmoid, descending, transverse, ascending colon (figure 2) and cecum.

Pathology report of colonic biopsy samples noted chronic inflammatory changes consistent with Crohn's colitis and equivocal immunohistochemistry for Cytomegalovirus (figure 3).

Peripheral leg lesion biopsy showed perivascular lymphocytic infiltrate.

Ultimately patient was discharged with gastroenterology follow-up and scheduled re-biopsy.

Pyoderma Gangrenosum can be mistaken for **ulcer of vascular disease**. Suspect in patients with **atypical skin lesions** and symptoms of **colitis**.

Figure 1 - left lower extremity demonstrating a large well-circumscribed central ulcerative lesion with violaceous border. Similar but smaller lesions seen inferiorly.

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Findings

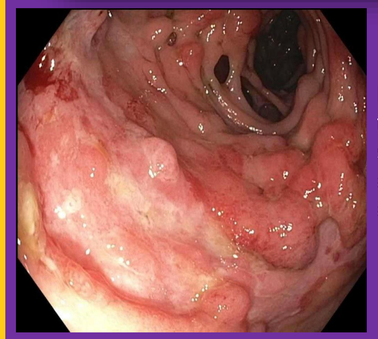

Figure 2 - Photograph taken during colonoscopy showing mucosal ulceration and inflammation of the ascending colon

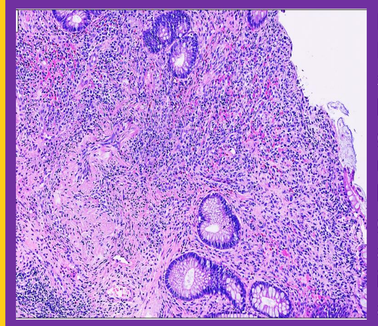

Figure 3 - (x200) Photomicrograph of H&E stained section of colonic biopsy showing inflamed granulation tissue with an ulcerative process, areas of lamina propria fibrosis, granulation tissue, mixed acute and chronic inflammation, and crypt architectural distortion

Discussion

Pyoderma gangrenosum is a rare inflammatory skin condition classically presenting as pustule/nodule progressing to an ulcer.

Occurs in 0.75-1.5% of IBD cases and is more strongly associated with Crohn's Disease[1].

Histopathology varies by timing and site of biopsy.

Early/margin biopsy may show a chronic inflammatory infiltrate and features suggestive of vasculitis often with perivascular lymphocytic infiltrate[2].

Late biopsy shows neutrophilic infiltration[3].

The lesion may be mistaken for a diabetic foot ulcer or ulcer of vascular disease.

Underlying IBD should be suspected in patients with atypical skin ulcers and symptoms suggestive of colitis

References

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