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Case Report

Pyoderma gangrenosum associated with ulcerative colitis: A case report

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Abstract Pyoderma gangrenosum (PG) is an uncommon ulcerative cutaneous condition of heterogeneous etiology. It is characterized by rapid progression of painful necrolytic ulcer. It is associated with systemic diseases in at least 50% of patients. Diagnosis is made by exclusion of other causes of similar appearing cutaneous ulcerations including infections, malignancy, etc. In our case pyoderma gangrenosum was associated with ulcerative colitis.

Key words
Pyoderma gangrenosum, ulcerative colitis.

Introduction

Pyoderma gangrenosum (PG) is a rare inflammatory dermatological condition that was first described by Brocq, a French dermatologist, in 1916. It is characterized by rapidly progressing recurrent ulceration of skin with ill-defined border and can occur at any age.[1] Etiopathogenesis is still not well understood. PG is a part of spectrum of neutrophilic dermatoses. It has gender predilection for females and commonly affect lower extremity.[2]

Diagnosis of PG requires clinicopathological correlation and is often diagnosis of exclusion after common causes of skin ulceration. PG is often associated with systemic diseases such as inflammatory bowel disease, rheumatoid arthritis and hematological conditions etc.[3] Despite advances in medical therapy the prognosis of PG remains unpredictable and if left untreated, is almost always fatal.[4]

Case Report

A 25-year-old Asian female presented with ulcerated plaque on lateral aspect of left foot for the last 10 months. The ulcer started with pustule formation and progressed gradually to involve back of the heel along with pustule formation on the back of heel. There was history of pain over the ulcerated plaque.

Her medical history was significant for intermittent diarrhea for last 10 months comprising 4-5 episodes per day out of which 1-2 at night with small amount of blood associated with abdominal pain. There was history of weight loss. Other systemic inquiry was unremarkable.

Multiple treatment modalities were tried for her cutaneous disease including topical, as well as, systemic but there was no relief. She also got admitted for the same disease and after investigations ATT was started on the basis of positive T-spot test 3 months back.

Examination showed an ulcerated plaque of 10 X 11 cm in size on lateral aspect of left foot, tender to touch, well-demarcated raised border with erythematous base and some purulent exudate in the center (**Figure 1**). Her abdomen was soft, non-distended, good bowel sounds and mild deep tenderness in bilateral lower quadrants without rebound. Rest of the systemic examination was unremarkable.

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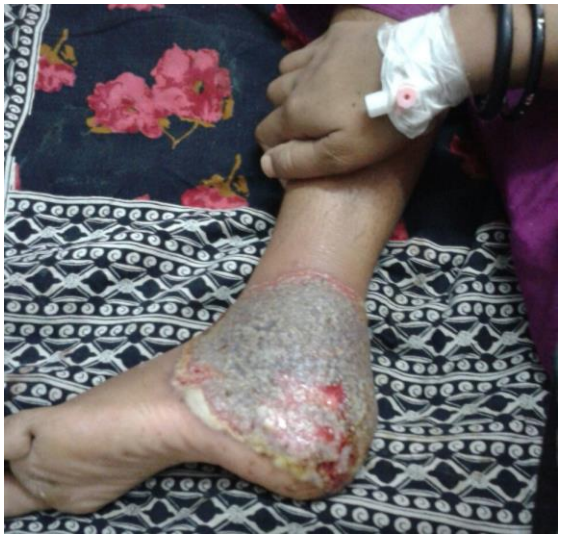

Figure 1 Ulcerated plaque on lateral aspect of left foot, tender to touch, well-demarcated raised border with erythematous base and some purulent exudate in the center.

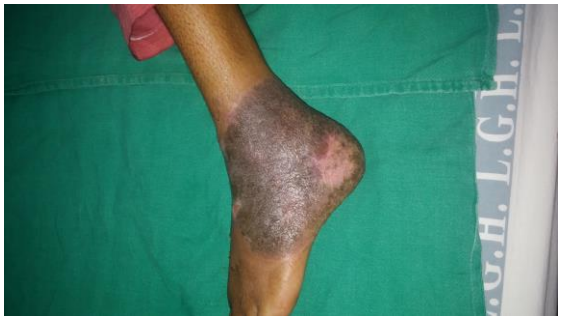

Figure 2 Complete healing of lesion after six month of therapy.

CBC, urinalysis, LFTs and RFTs were all within normal limits. T-spot was positive, stool for occult blood was negative, HIV and hepatitis B and C screening was also negative. Abdominal ultrasound scan was normal.

Punch biopsy of ulcer margin showed pseudoepitheliomatous hyperplasia and dense inflammatory infiltrate composed of neutrophils, lymphocytes and eosinophils. On clinical suspicion of inflammatory bowel disease, colonoscopy was performed which showed hyperemia, edema and focal superficial ulcers of mucosa in recto-sigmoid region which suggested moderate to severe colitis and biopsy of mucosa showed chronic inflammation and ulceration of mucosa, crypt distortion and abscesses which confirmed ulcerative colitis.

We excluded other causes of ulcerated lesions like infections by appropriate cultures and microscopy. Pathergy was positive. Based on clinical and histopathological changes, diagnosis of PG associated with ulcerative colitis was made in our case. Specific therapy of PG was started i.e. prednisolone 30 mg daily along with sulfasalazine 500 mg twice daily for ulcerative colitis. Three weeks after start of therapy, the patient improved clinically and ulcer started reducing in size. Complete healing was seen in 6 months with residual scarring (**Figure 2**).

Discussion

PG is an uncommon type of cutaneous ulceration that continues to be a difficult disorder to diagnose and treat. It is a neutrophilic disorder associated in 70% of cases with underlying systemic diseases such as inflammatory bowel disease, rheumatoid arthritis, monoclonal gammopathy or malignancy.[3]

Clinically, it presents as painful rapidly progressing purulent ulceration with well-defined and often undermining margins with violaceous hue. Pathergy is usually positive. PG is actually the diagnosis of exclusion.[5]

In our case patient was diagnosed as PG on the basis of histopathology, exclusion of other causes of ulcerated lesions and PG was associated with UC. After treatment with specific therapy of PG and UC patient showed improvement within 6 months.[6]

About 25% to 50% cases of PG are related to inflammatory bowel disease. In one study of 116 patients with ulcerative colitis, 2.4% had associated PG. There are other conditions associated with PG; these include rheumatoid arthritis, connective tissues disorders, chronic autoimmune hepatitis, myeloid blood dyscrasias, Wegener's granulomatosis and colonic adenocarcinomas.[5]

Treatment includes dressing of small ulcers, oral steroids with immunosuppressive drugs such as azathioprine, methotrexate or ciclosporin. Lately, infliximab an anti-tumour necrosis factor-alpha, has been found to be effective.

In conclusion, PG may be the presenting feature in ulcerative colitis.

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