

Cutaneous Tuberculosis Masquerading As Pyoderma Gangrenosum

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Citation

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Abstract

Pyoderma gangrenosum is an idiopathic and chronic condition characterised by rapid progression of a purple plaque into an expanding ulcer. It is a diagnosis of exclusion, hence appropriate diagnosis and early treatment helps to prevent complications in patients who have other causes of severe cutaneous ulceration. We present a case of cutaneous tuberculosis in a 30 year old patient which was misdiagnosed as pyoderma gangrenosum, that resulted in delay in instituting appropriate treatment.

INTRODUCTION

Pyoderma Gangrenosum (PG) is an uncommon, idiopathic, chronic ulcerative inflammatory skin disease. It can occur due to underlying diseases in a significant proportion of cases. A variety of skin conditions also present with lesions resembling pyoderma gangrenosum, hence warranting the need for correct diagnosis to prevent complications.

CASE REPORT

A 30-year-old lady had presented to her GP several times with history of enlarging ulcers on her left forearm, which was diagnosed as pyoderma gangrenosum. She did not respond to the prescribed treatment for over a year and was referred to us. She had no other systemic complaints. On examination, there were 2 non-tender ulcers on her left forearm, the larger measuring 3 cm in diameter. The ulcers were covered by fleshy appearing granulation tissue, undermined edges, with crusting in some areas.

Figure 1

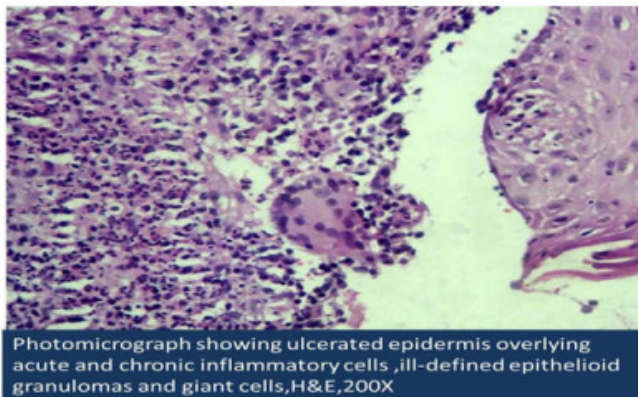
Two large ulcers covered by fleshy granulation tissue



Surrounding skin was normal. Systemic examination was unremarkable. All baseline investigations laboratory tests were normal except for raised ESR(40mm/1hr). A biopsy was performed from the edge of the lesion, which on histopathological examination revealed ulcerated epidermis overlying few ill-defined epithelioid granulomas, foreign body and Langhans type of giant cells and dense acute and chronic inflammatory infiltrate.

Figure 2

Ulcerated epidermis overlying acute and chronic inflammatory cells, ill-defined epithelioid granulomas, and giant cells



Periodic acid Schiff and Zeil Nelson stain were negative for fungal elements and acid fast bacilli. A histopathological diagnosis of granulomatous ulcer, with possibility of tuberculosis was considered. Patient was put on antituberculous treatment (DOTS regime) and the ulcers started healing within 4 weeks of treatment.

DISCUSSION

Pyoderma Gangrenosum (PG) is an uncommon, idiopathic, chronic ulcerative inflammatory skin disease [1]. Four types of PG have been recognised: the ulcerative, pustular, bullous and vegetative types. The ulcerative type is characterised by painful ulceration surrounded by an erythematous halo. Most of the affected patients have an underlying condition, usually inflammatory bowel diseases (such as ulcerative colitis, Crohn's disease and diverticular disease), arthritis (such as rheumatoid arthritis, spondyl-arthritis), chronic hepatitis and hematological malignancy (including acute and chronic myeloid leukaemia, myelofibrosis, lymphoma) and solid tumours of the colon, bladder, prostate, breast, bronchus, ovary etc.

The conditions which cause ulceration resembling pyoderma gangrenosum fall in six broad categories which includes vasoocclusive disease, vasculitis, cancer, infection, exogenous tissue injury, and other inflammatory disorders. [2]

Misdiagnosis of pyoderma gangrenosum is reported in as high as 10 percent of the cases, exposing patients to complications of the disease and substantial risks associated with treatment. [2]

In the category of primary cutaneous infection, deep fungal infection is the most frequently misdiagnosed as pyoderma gangrenosum. Other infections include Herpes virus, mycobacteria, and amoebiasis.

Approach to correct diagnosis of pyoderma gangrenosum should include detailed clinical history for h/o trauma, drug intake and symptoms related to associated diseases.

Thorough physical examination of the ulcer is essential. Typical non-tender lesions occur in atypical mycobacterial infections and deep fungal infections like chromoblastomycosis, while idiopathic pyoderma gangrenosum is usually tender.

Skin biopsy (elliptical incisional) for routine histology and special staining to detect micro organisms, and bacterial, fungal and mycobacterial culture to rule out cutaneous infections that mimic pyoderma gangrenosum is essential. Laboratory investigations include blood count, ESR, blood chemistry (liver and kidney function tests), protein electrophoresis, chest radiography, colonoscopy, coagulation profile (anti-phospholipids antibodies), anti-neutrophil cytoplasmic antibodies, and cryoglobulins are to be requested whenever indicated, as an underlying systemic disease such as inflammatory bowel disease, rheumatoid arthritis, haematological malignancy or paraproteinaemia may be present in more than 50% of cases of pyoderma gangrenosum [3].

Close continuous follow up is required to monitor response to the treatment. If no response is seen to the treatment, the diagnosis should be reconsidered.

References

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