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### **A Rapidly Progressing Wound, A Mistaken Identity**

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### ANSWER TO JCHS-IQ-01-2021

The most likely diagnosis is Pyoderma Gangrenosum.

#### **Discussion**

Pyoderma gangrenosum (PG) is an uncommon, often destructive inflammatory skin condition in which a pustule breaks down and quickly turns into an ulcerative lesion with irregular, violaceous, undermined border and a surrounding zone of erythema.

“Pyoderma gangrenosum” term was given due to the physical appearance of the lesion. However, the term is a misnomer, i.e. it has neither an infectious nor gangrenous aetiology. Diagnosis is purely clinical, and specific pathologic or laboratory findings are non-existent. The estimated incidence of PG is 3-10 cases per million people [1]. The prevalence of PG is between the ages of 25 to 54 years, and women being more commonly affected than men [2].

Nearly half of the PG cases are related to underlying systemic conditions which include inflammatory bowel disease, arthritis, and haematological malignancies [2]. In a different perspective, approximately 2% of patients with inflammatory bowel disease will develop PG [3]. Nevertheless, PG is fortunately not related to the activity of the inflammatory bowel disease, although it usually happens in patients whose bowel disease is in clinical remission.

It is critical to diagnose PG early since this condition is usually misdiagnosed even by experienced surgeons. These cases are usually referred to them as soft tissue infections, often requiring urgent surgical interventions. Wound debridement may result in worsening of the natural history of PG due to pathergy reaction. The surgery may expedite the necrotic process postoperatively [4]. In contrast, this condition should be treated by immunosuppressants.

There is no gold-standard treatment for PG, and hardly any controlled trials of treatment have been done [4]. Most physicians use a graduated approach involving both topical and systemic treatments together with proper wound care. Immunosuppression is the cornerstone of treatment, and the most typically used drugs are corticosteroids and ciclosporin. Results are inconsistent for several other immune-suppressive drugs, but treatment is mainly empirical with the option of treatment frequently depends on local experience [3][5].

## Learning Points

- PG presents in a variety of appearances and might lead to a wrong diagnosis. PG most commonly presents as painful ulcers; it is mainly a clinical diagnosis, but histology is supportive.
- It is vital to look for an associated risk factor in patients presenting with PG, such as inflammatory bowel disease.
- Awareness about PG is important to achieve early diagnosis and to avoid unnecessary surgical interventions that may lengthen or aggravate the outcome.

## Conflict of Interest

Authors declare none.

## REFERENCES

1. Ruocco E, Sangiuliano S, Gravina AG, Miranda A, Nicoletti G. Pyoderma gangrenosum: an updated review. *Journal of the European Academy of Dermatology and Venereology*. 2009;23(9):1008-17.
2. Bennett ML, Jackson JM, Jorizzo JL, Fleischer Jr AB, White WL, Callen JP. Pyoderma gangrenosum. A comparison of typical and atypical forms with an emphasis on time to remission. Case review of 86 patients from 2 institutions. *Medicine*. 2000;79(1):37-46.
3. Callen JP. Pyoderma gangrenosum. *The Lancet*. 1998;351(9102):581-5.
4. Barańska-Rybak W, Kakol M, Naesstrom M, Komorowska O, Sokołowska-Wojdyło M, Roszkiewicz J. A retrospective study of 12 cases of pyoderma gangrenosum: why we should avoid surgical intervention and what therapy to apply. *The American surgeon*. 2011;77(12):1644-9.
5. Reichrath J, Bens G, Bonowitz A, Tilgen W. Treatment recommendations for pyoderma gangrenosum: an evidence-based review of the literature based on more than 350 patients. *Journal of the American Academy of Dermatology*. 2005;53(2):273-83.

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