Nonhealing Ulcer at a Surgical Site

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A man in his 80s was evaluated for a 4.5 cm necrotic ulcer with a violaceous border at a previous surgical site (Figure 1). The nonhealing ulcer despite treatment was concerning for squamous cell carcinoma (Marjolin ulcer). Punch biopsy from the ulcer border revealed epidermal hyperplasia with intraepidermal acantholysis, dermal hemorrhage, and lymphoplasmacytic inflammation (Figure 2). Tissue cultures, Grocott methenamine silver, Gram, and acid-fast bacillus stains and immunohistochemistry for herpes simplex virus were unremarkable. Indirect immunofluorescence results were negative for cell surface and basement membrane IgG antibodies. Desmoglein-1 and desmoglein-3 were also negative for pemphigus. These findings correlated with the clinical presentation and were most consistent with superficial granulomatous pyoderma exhibiting an unusual pattern of intraepithelial acantholysis. This diagnosis was instrumental for further management. Treatment with systemic steroids and doxycycline led to ulcer healing.

Superficial granulomatous pyoderma is a vegetative form of pyoderma gangrenosum, often arising at the site of previous surgery or other pathergic stimuli. Unlike pyoderma gangrenosum, it is not associated with an underlying systemic disorder. Clinically, superficial granulomatous pyoderma presents on trunk and extremities as a clean-based ulcer with a vegetative border, persisting for months or even years. Surgical debridement is contraindicated. The classical histopathologic presentation is described as a 3-layer granuloma. Acanthosis and pseudoepitheliomatous hyperplasia are common features, representing reactive changes to dermal inflammation; however, acantholysis is atypical. Superficial granulomatous pyoderma is a diagnosis of exclusion and other entities, particularly an infection, and in this case a blistering disorder such as pemphigus vegetans must be excluded.

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FIGURE 1. Left inguinal ulcer with violaceous border.
REFERENCES


FIGURE 2. Biopsy from the edge of the ulcer reveals epidermal hyperplasia and focal dermal hemorrhage (A) and mixed inflammatory infiltrate consisting of lymphocytes and plasma cells (A, inset); epidermal hyperplasia with intraepidermal acantholysis (B) (hematoxylin and eosin stain, original magnification ×40 [panel A], ×400 [panel A, inset], and ×100 [panel B]).