

Pyoderma Gangrenosum after Breast Reduction Surgery

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Introduction

Post-surgical pyoderma gangrenosum (PSPG)

- refers to the development of pyoderma gangrenosum (PG) on surgical sites due to pathergy
- Major risk factors of PSPG include previous history of PG, rheumatoid arthritis, inflammatory bowel disease, and hematologic malignancies
- PSPG is most implicated in breast surgeries, followed by cardiothoracic surgeries and abdominal surgeries
- First-line treatment may involve systemic corticosteroids, cyclosporine, and immunomodulators

Clinical Pictures



Feb 2023

Oct 2023

Case Presentation

Within 1-week of undergoing an **uncomplicated bilateral breast reduction...**

- **61-year-old female** presented *with rapidly progressive ulcers, erythema, and severe pain on both breasts*
- Lesions began as tender vesicles along incision sites that quickly ulcerated and expanded in size
- Patient also endorsed intermittent fever and chills

Exam revealed...

- Two large, **well-defined ulcerative plaques** on bilateral breasts with overlying **fibrinous and necrotic debris**



Diagnosis

Based on clinical presentation and the following factors...

- **Leukocytosis** and **elevated CRP**
- Negative ANA, rheumatoid factor, and antineutrophil cytoplasmic antibodies
- Left breast punch biopsy revealed an ulcer with diffusely purulent **neutrophilic infiltrate**
- Tissue culture: **no** bacterial, fungal, and mycobacterial infections

Diagnosis = PSPG

Treatment

Prednisone taper (starting dose at 1mg/kg, tapered over the next 6 weeks)

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Adalimumab (Humira) – Initial 160 mg subcutaneous dose given at one time, then 80 mg on day 15, and then 40 mg once weekly starting on day 29

Key Messages 🔑

- **Post-operative pyoderma gangrenosum (PSPG)** is an uncommon surgical complication that should be on dermatologists' differential when evaluating patients **with ulcers on surgical sites**
- PSPG is particularly common after **breast reduction mammoplasty and reconstruction**, accounting for 25% of all PSPG cases
- Additionally, **biologic therapies** should be considered as first-line treatment for patients with extensive and rapidly progressing disease