

Anna Grace Hansen
L2
LSU Health Sciences Center, New Orleans, LA

Dr. Caitlin G. Robinson, MD, FAAD, FACMS
Louisiana Mohs and Skin Surgery

**Pyoderma Gangrenosum in the setting of Breast Cancer Reoccurrence:
A Diagnostic and Therapeutic Challenge**

Introduction: Pyoderma gangrenosum (PG) is a rare neutrophilic dermatosis that commonly presents as painful, aseptic ulcerations on the trunk or lower extremities. ¹ PG typically results from an underlying systemic disease such as rheumatoid arthritis, inflammatory bowel disease, myeloproliferative disorders, and other autoimmune conditions. However, associations with solid organ malignancies are less commonly reported. ^{1,2}

Case: We present an 81-year-old female with a history of breast cancer requiring a bilateral mastectomy, radiation, and complicated by failed reconstruction 20 years prior. The patient presented for evaluation of a growth overlying the prior left breast cancer resection and radiation site, which was suspicious for a recurrence of cancer. In addition, the patient required an evaluation for lesions involving the right pretibial and left anterior proximal thigh, which were clinically concerning for pyoderma gangrenosum.

Diagnostic evaluation included shave biopsies of all three lesions, as well as a wound swab and tissue culture from the right pretibial region. Ultimately, the pathology results of the left breast biopsy were morphologically consistent with breast carcinoma involving the dermis and vascular spaces. The lower extremity lesions both demonstrated suppurative and granulomatous dermatitis. In this context and given the negative cultures of the right pretibial region, the lower extremity lesions were managed and treated as suspected pyoderma gangrenosum. The patient received systemic and topical steroids, which are expected to resolve the lower extremity lesions. Breast cancer management was initiated and continued with oncology.

Conclusions: This case highlights an uncommon finding and the diagnostic and treatment complexity of pyoderma gangrenosum in a patient with a history of and recurrence of breast cancer. It emphasizes the importance of maintaining pyoderma gangrenosum in the broad differential concerning progressive, painful ulcerations in a variety of patient presentations. Moreover, early recognition can guide proper treatment, prevent detrimental and unnecessary procedures, and ensure that these patients are screened for underlying malignancy when appropriate.