An 81-year-old woman with advanced ovarian carcinoma presented to our hospital with a 3-week history of an erythematous rash and progressive tenderness on the right anterior chest wall. The rash first appeared on the inferior aspect of the breast and then spread superiorly. She was initially treated with a 5-day course of dicloxacillin for presumed cellulitis, without improvement. Outpatient mammography and breast ultrasonography were performed and demonstrated nonspecific diffuse skin thickening and a 1.7-centimeter lymph node with an asymmetric mildly thickened cortex.

Three weeks after the rash first appeared, she presented to the emergency department, where she received 1 dose of intravenous clindamycin. Because of the patient’s lack of response to the previous antibiotics, cutaneous methicillin-resistant \textit{Staphylococcus aureus} (MRSA) infection was suspected. She was admitted to the hospital, and linezolid treatment was initiated, given a previously documented vancomycin allergy. At the time of her admission, the patient was requiring frequent therapeutic paracenteses because of recurrent malignant ascites and was receiving palliative vinorelbine.

On examination, the patient was afebrile and appeared cachectic. Her right anterior chest wall showed an erythematous, warm patch with irregular borders that was tender to palpation. No induration or elevated borders were noted (Figure 1). An enlarged, tender lymph node was palpable in her right axilla. Her white blood cell count was $4.45 \times 10^3$ cells/µL. Results of an admission nasal MRSA screen, rectal vancomycin-resistant enterococcus screen, and blood cultures were negative. Despite receipt of inpatient therapy with oral linezolid (600 milligrams twice daily) for 5 days, the rash persisted, and a punch biopsy was performed (Figure 2). What is your diagnosis?