

Cutaneous and Osseous Metastatic SCC Complicated by *Proteus mirabilis* Bacteremia

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Case Presentation

A woman in her late sixties presented to the hospital due to progressive weakness and multiple skin wounds. Her first skin lesion developed 8 years earlier on the posterior right leg, followed by another on the left chest wall 4 years later. She became increasingly weak over the past 2–4 weeks, leaving her bedridden.

Her medical history was largely unknown, as she had not sought medical care in many years and was resistant to doing so. Family history was notable for breast cancer.

On presentation, she was hypothermic (temperature 34.1°C), hypotensive (BP 77/64), HR 95. Weight was 77lbs (BMI 12.84). On exam, she had generalized weakness and appeared confused. Multiple lesions were present across her left chest wall, abdomen, back and legs (Figures 1-2). The most significant was a large fungating mass on the left chest wall.



Figure 1. Erosions and erythematous plaques on the abdomen



Figure 2a and 2b. Fungating mass of the left chest wall extending to the left shoulder

Hospital Course

Labs were significant for elevated lactic acid (2.4 mmol/L), procalcitonin (0.75 ng/mL), and leukocytosis (WBC 25.4). The patient was admitted with a diagnosis of sepsis secondary to infected wounds. She was treated with IV fluids, vasopressors, broad-spectrum antibiotics, and external warming measures.

Non-contrast CT revealed a lucent bone mass to the left clavicle and another to the right posterior ilium (Figure 3). Other features were noted: small calculi within the urinary bladder. Blood cultures grew *Proteus mirabilis*. Punch biopsy of the chest wall lesion confirmed invasive, well-differentiated squamous cell carcinoma. Her family elected for comfort care, and she died two days later.

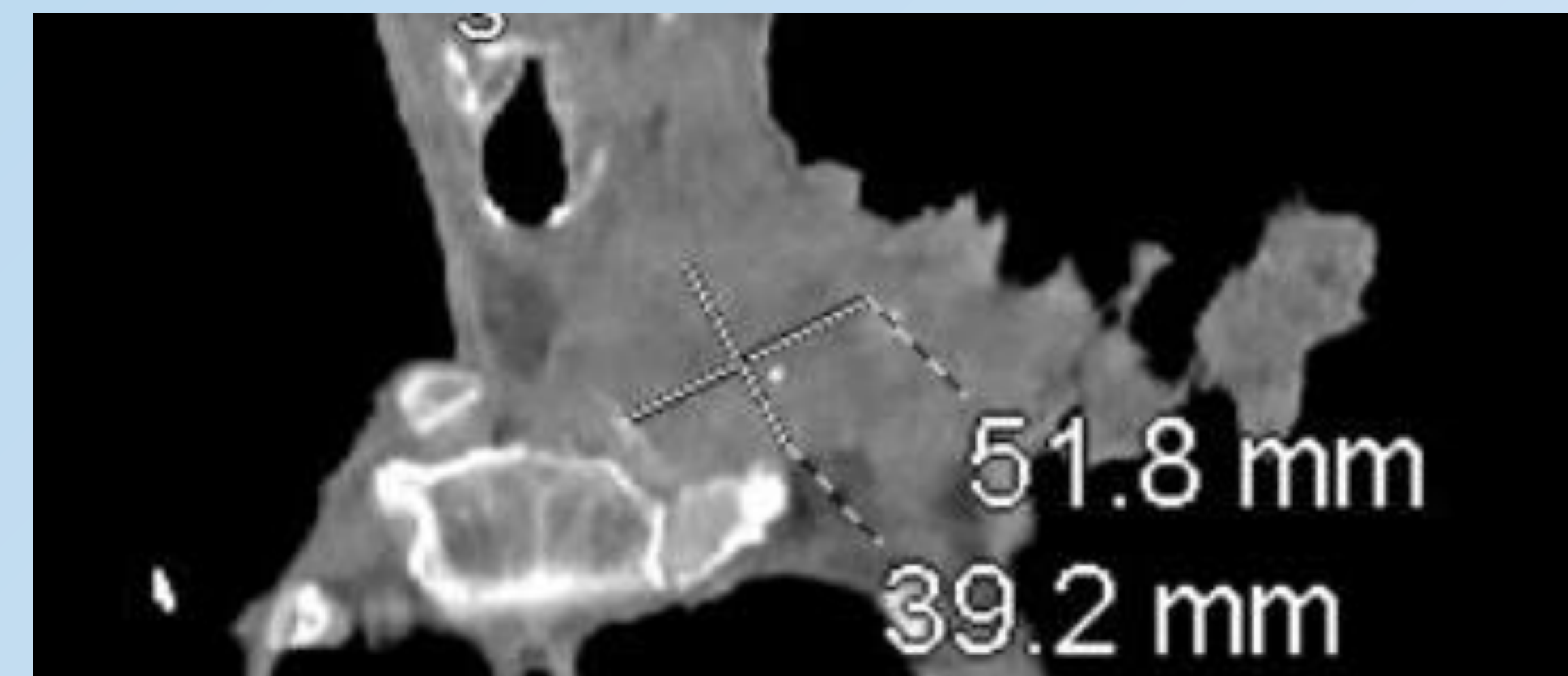


Figure 3a. CT demonstrating lucent bone mass of the left clavicle consistent with a malignant lesion.



Figure 3b. CT demonstrating lucent bone mass of the right posterior iliac bone near the sacroiliac joint

Discussion

This case highlights a rare presentation of diffuse cutaneous and osseous metastatic squamous cell carcinoma (SCC) complicated by *Proteus mirabilis* bacteremia and sepsis.

Advanced or neglected cutaneous SCC may serve as a nidus for infection and widespread metastasis. Metastatic rates range from 1.2–5%,¹ with ~80% involving regional lymph nodes; though distant dissemination to the lungs, liver, brain, bones, and skin has also been reported. In one study, 4.5% of patients developed nodal metastases, and of those, 22.4% went on to develop distant metastases.⁵

The patient's risk factors for metastasis included tumor diameter and depth,^{1–3} though her lesions were not in a high-risk location. She was not known to be immunocompromised, although assessment was complicated by a lack of known medical history.

Differential diagnosis includes metastatic breast cancer, Gryzbowski syndrome, basal cell carcinoma, and squamous cell carcinoma.

Metastatic cutaneous SCC carries a poor prognosis, with studies estimating a mortality rate of >70%.⁶ Surgery remains the standard for high-risk tumors, while chemotherapy and immunotherapy are often indicated for advanced disease.¹

References

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