Multi-dermatomal Herpes zoster infection as the presenting symptom of underlying ductal carcinoma

Kaylin Beiter, PhD; Carrie Pham; Vince Cataldo, MD; Jessica LaCombe, MD
Louisiana State University Health Sciences Center

Clinical Case

Chief Complaint: insidious onset progressively worsening erythematous, painful non-pruritic rash on unilateral breast and ipsilateral upper back

Patient: 62 year old African-American Female with past medical history significant for coronary artery disease, hypertension, and reduced ejection fraction heart failure

Context: brought to the emergency department at her son's urging for evaluation of the chief complaint above. Reported that the rash was painful and had only been present for a four weeks. She was not up to date on age-appropriate cancer screenings, including having not had a Mammogram for several years in a row.

Hospital Course

Patient admitted to the **Internal Medicine Service** for workup and biopsy
Differential:

- Herpes Zoster with bacterial superinfection
- Atypical other infectious disease
- Breast Cancer

Clinical Evaluation: Tender vesicular and crusted lesions on a violaceous, hyperpigmented base with underlying edema and induration in the left T3-T5 dermatomal distribution. Clinically consistent with herpes zoster infection.

Biopsy of the involved region revealed underlying invasive mammary carcinoma of ductal origin. Further work up with CT/MRI demonstrated multiple nodal, hepatic, and bony metastases.

Patient **asked in advance for her preferences on how diagnoses should be shared with he**r. She reported a preference to learn of her diagnosis individually, with a minimal number of medical professionals in the room and in the absence of her family. After learning of her breast cancer, she **then requested family presence in subsequent discussions** with the Oncology team about treatment options.

Throughout her early hospital course the patient endorsed localized tenderness only. Normalization of the severe pain associated with bony metastases (following diagnosis disclosure) led to the patient accepting pain medication.

Discharged outpatient Hospice after conferral with patient and her family.

Clinical Evaluation

Clinical Image. Upper back. Note the scattered rash present unilaterally but with multi-dermatomal spread on the upper back.

Clinical Image. Breast. Note the crusting of numerous vesicles on an erythematous to violaceous base. Again, there is unilateral but multi-dermatomal involvement.

Discussion

Herpes zoster infection has been associated with a significantly increased risk of future all-cause cancer incidence, and can be considered a herald of immunologic dysregulation in the context of underlying malignancy.

Zoster infections, when involving the breast, may mimic breast malignancy, and this similar phenotype may present a diagnostic challenge for clinicians.

Neglected breast cancer, such as in this patient, may be minimized with regard to history and pain, and patients may be brought in for medical evaluation by concerned family members. Physicians must be sensitive to the patient's fears and disease perceptions, as well as non-judgemental towards the patient's reasons for not pursuing medical evaluation earlier.

Key Points

Patients with Zoster should be assessed for underlying malignancy and counseled to stay up to date with age-appropriate cancer screenings

Normalization of the patient's entire disease experience, including their fears, concerns, and pain is critical for development of the therapeutic alliance and ability to achieve effective treatment.

Patient's desires for how bad news should be conveyed should be discussed in advance of diagnosis disclosure. Frequent check in is needed to ensure patients feel comfortable including or excluding family and friends as their knowledge changes.