Rapidly growing lesions on the forehead

Three distinct morphologies were visible. Biopsies revealed the diagnosis for each.

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A 97-year-old woman with a history of atrial fibrillation and nonmelanoma skin cancer presented to our clinic from an assisted living facility with a several-month history of rapidly growing forehead lesions. She denied symptoms, other than some bleeding and crusting, but was concerned about their appearance. She reported a notable history of sun exposure.

The patient had 3 confluent, but distinct, lesions on her forehead: an erythematous crateriform nodule with overlying hyperkeratotic scale (**FIGURE**, Lesion A); a nodular hyperpigmented plaque with irregular color and borders (Lesion B); and a pearly well-vascularized erythematous nodule with surrounding hemorrhagic crust (Lesion C).

She also had scattered, thin, gritty pink papules and plaques on the face that were thought to be actinic keratosis and nonmelanoma skin cancers based on clinical morphology; however, the patient deferred workup and treatment of these lesions to focus on the forehead lesions. The decision was made to biopsy all 3 clinical morphologies seen. The risks and benefits of biopsy were reviewed with the patient and her daughter, and they opted to proceed. The areas were anesthetized with an injection of 1% lidocaine and epinephrine 1:100,000; 3 shave biopsies were performed. Hemostasis was obtained with electrodesiccation.

- WHAT IS YOUR DIAGNOSIS?
- HOW WOULD YOU TREAT THIS PATIENT?

FIGURE
Three large lesions on forehead with erythematous papules, plaques on face

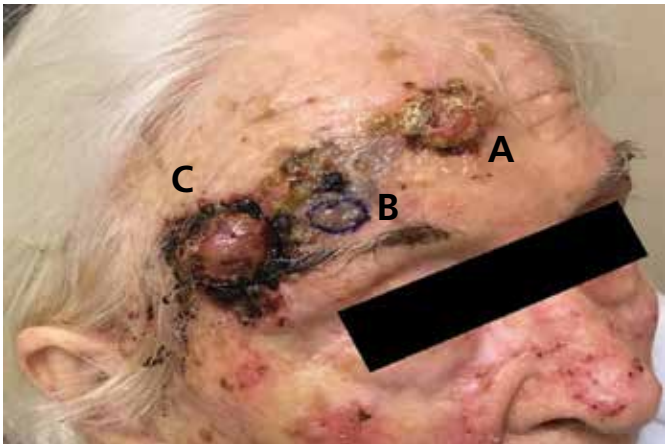

IMAGE COURTESY OF: JENNIFER L. HSIAO, MD

The findings in this case serve as an important reminder to biopsy lesions with varying morphologies even when they are in close proximity to one another.

Diagnosis: Skin cancer

A histopathology report revealed that Lesion A was squamous cell carcinoma (SCC), Lesion B was a melanoma with a Breslow depth of at least 1.2 mm, and Lesion C was basal cell carcinoma (BCC). It is unusual to have a patient present with BCC, SCC, and melanoma concurrently in the same anatomic region.

Two of the lesions were nonmelanoma skin cancers (NMSC). BCC is the most common NMSC in the United States, affecting more than 3.3 million people per year.[1] Although there are several subtypes of BCC with varying clinical presentations, the most classic appearance is a pearly papule with or without surface telangiectasias.[2]

SCC has an incidence of 200,000 to 400,000 cases per year in the United States and the lifetime risk is 9% to 14% in men and 4% to 9% in women.[3] SCC most commonly presents as a hyperkeratotic papule or plaque.[2] Lesions suspicious for SCC and BCC should be biopsied and the diagnosis confirmed by histopathologic analysis. These NMSCs are locally destructive, but rarely metastatic with a generally good prognosis. The standard treatment for both is surgical excision with consideration for other treatment modalities, such as topical therapies, chemotherapy, and radiation, depending on tumor characteristics as well as whether the patient is a good surgical candidate.[1,3]

Melanoma is rising in incidence each year, with nearly 100,000 new cases expected in the United States this year.[4] It is the leading cause of skin cancer related mortality.[5] The most common suspicious lesions are variably pigmented macules with irregular borders. Biopsy and subsequent histopathologic analysis will confirm the diagnosis.

When a lesion is clinically suspicious for melanoma, it is particularly important to consider an excisional biopsy to allow for proper staging.[5] Examples of appropriate excisional biopsies include elliptical excisions, punch biopsies, and deep shave biopsies.[5] Definitive treatment involves a wider and deeper excision with histologically confirmed clear margins.[5]

This case required a multidisciplinary team

The patient underwent magnetic resonance imaging and positron emission tomography/computed tomography; the scans revealed no metastatic disease. She was evaluated by a multidisciplinary head and neck cancer team, and various treatment options were explored. Resection typically is the definitive treatment for localized cutaneous melanoma; however, given the configuration of the lesions, it was deemed impractical to resect this patient's melanoma and not the other lesions. Radiotherapy can be effective for BCC and SCC, but it is traditionally not as effective for melanoma.[6] The options presented to the patient were radiotherapy or surgical resection to all 3 lesions, and she decided to pursue resection.

The patient was cleared for surgery; however, after the patient held her warfarin in preparation for the resection, she suffered a left frontal operculum infarction. At this point, she was re-evaluated by her head and neck physician, cardiologist, and anesthesiologist. Consensus was reached that the patient was at high perioperative risk for morbidity and mortality, and surgical intervention was no longer considered a viable option.

The patient then opted for palliative radiation therapy to all 3 lesions, with the understanding that the local control offered by radiotherapy would be inferior to what resection would provide for the melanoma lesion. Although not curative, radiotherapy was expected to provide local symptom relief for the melanoma, consistent with the patient's palliative goals of care. In the past, melanoma was thought to be resistant to radiation, but recent evidence suggests that it may be at least partially susceptible to hypofractionated courses of radiation.[6]

Radiation oncology recommended a 6 to 15 fraction regimen and she had a good clinical response with > 50% decrease in the size of all 3 lesions along with cessation of bleeding.

The take-home lesson. The findings in this case serve as an important reminder to biopsy lesions with varying morphologies—even when they are in close proximity to one another. Foregoing any of the biopsies in this case would have led to a missed diagnosis, which has implications for optimal management and treatment. JFP

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