CLINICAL VIGNETTE

Skin Lesions in Metastatic Breast Cancer

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The patient is a 65-year-old female with metastatic breast cancer on long-term treatment for her disease. She originally was diagnosed 15 years ago at age 49 with bilateral early stage breast cancers after an abnormal screening mammogram. She underwent a right mastectomy for a T2N0 estrogen-positive (ER+), progesterone-positive (PR+), human epidermal receptor 2-negative (HER2-) invasive lobular carcinoma and a left breast lumpectomy for a lobular carcinoma in situ. She subsequently received adjuvant chemotherapy with a doxorubicin-based regimen for 3 months followed by an aromatase inhibitor for five years, which she completed 10 years ago. She did well until she presented to the hospital emergency room 6 years later at age 61 with new shortness of breath and back pain and was hospitalized for a new, large, right pleural effusion. Specifically, her computed tomography of the chest noted diffuse sclerotic and lucent bone lesions, pleural thickening, a large pneumothorax, and a right pleural effusion with visceral and parietal thickening and carcinomatosis. Bone scan noted focal increased activity of the left fourth rib and heterogeneity in the spine consistent with bone metastases. A diagnostic and palliative thoracentesis was performed on the right-sided fluid, and cytology indicated metastatic lobular carcinoma. The cells were similar to her original diagnosis with ER+/PR+/HER2- disease. She started an aromatase inhibitor and a cyclin-dependent kinase inhibitor, palbociclib and did well for almost two years. Upon progression, her aromatase inhibitor was changed to fulvestrant in combination with her palbociclib. She again did well for about six months on this therapy before progression was noted. Most recently she had been on capecitabine. She tolerated it well overall except for severe and debilitating hand-foot syndrome. A dose reduction helped some with this side effect, but interestingly topical cannabidiol on her feet and hands was also quite effective. She had a great response with quickly decreasing tumor marker and marked improvements on serial imaging.

After almost two years of therapy with recent stable scans, she noted new left breast lesions. Her exam showed several red, mildly raised lesions. The largest was about one centimeter in size with three other quite small lesions. The patient had noted them several weeks prior to presentation. The exam appearance was concerning for dermal metastases from her breast cancer, but appeared on the side of her non-invasive breast cancer, which would be atypical for dermal presentation. Skin biopsy revealed lichenoid dermatitis. Interestingly, the patient also noted a new lesion on her right upper extremity in subsequent weeks.

Lichenoid reactions can occur on mucosal and/or cutaneous tissues.[1] Skin lesions present as violaceous, erythematous papules similar to those described this patien.[1] These reactions usually can be attributed to an offending medication; most likely related to her capecitabine.[1] Exposure to the medication to time of the eruption can be weeks to years.[1] In this case, the patient had been on treatment for quite some time before the rash began. The skin/mucosal reactions can disappear quickly without therapy once the drug is removed, but in some, the skin changes may persist despite discontinuing.[1,2] These reactions are rare, and are most commonly associated with checkpoint inhibitors, angiotensin-converting enzyme inhibitors, beta blockers, anticonvulsants, antiretrovirals, and antimalarials.[3] Chemotherapy drugs, such as capecitabine are known culprits but even targeted agents like imatinib have been associated with the findings.[3] There are other reports reporting capecitabine-induced lichenoid dermatitis.[1,2,4] Like this case, some also noted prior severe hand-foot syndrome.[2,4] It is unclear if there is any connection between lichenoid reactions and severe hand-foot syndrome since the latter is quite common with capecitabine use.[4]

Most reports have linked lichen dermatitis to photosensitivity.[1,2] Consequently, limiting sun exposure and using sunscreen are highly recommended in certain situations, and these are commonly recommended with capecitabine, given a strong association with photosensitivity.[1]

The treatment of lichenoid reactions is termination of the causative drug. However, in patients with limited involvement who require the continuation of the offending medication, topical steroid creams can be used to manage the affected areas.[1-3] For more severe reactions, the medication should be terminated and oral corticosteroids can also be considered.[2]

Given this patient's metastatic disease and good control on current treatment, the preference was to try to remain on the capecitabine. This was especially feasible since her areas of involvement were quite small and did not cause any irritation. She started topical clobetasol two to three times per day in the involved areas with good control. No new lesions developed and she continued with capecitabine for several more months. Eventually her breast cancer progressed and her chemotherapy was changed and her prior skin lesions resolved.

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