

Benign lymphangiomatous papules in a breast cancer survivor patient

Keywords: Lymphangiomas, atypical vascular lesions, radiation, breast cancer

Dear Editors,

Benign lymphangiomatous papules (BLAPs) are lymphatic proliferations characterized by scattered or grouped papules or vesicles that may contain translucent or milky fluid and range in color from skin-toned to erythematous.¹ Descriptions of BLAPs are varied and can include lymphangioma circumscriptum and benign lymphangioendothelioma.² BLAPs are often congenital, most commonly affecting children before age 2 and appearing on the head, neck, or oral mucosa.¹ However, they may also be acquired, often secondary to irradiation to the affected area.¹ Radiation can cause fibrosis, obstruction, and subsequent dilation of lymphatic vessels leading to the cutaneous manifestation of BLAPs.³

A 49-year-old woman with a history of breast cancer was referred by her oncologist for an asymptomatic “vesicular eruption” on the left breast present for 2 months. She was diagnosed with ductal carcinoma in situ of the left breast in 2015, which was treated with lumpectomy, postlumpectomy radiation, and tamoxifen. Subsequently, she developed invasive ductal carcinoma, for which she underwent double mastectomy, adjuvant chemotherapy with doxorubicin, cyclophosphamide and paclitaxel, and postmastectomy radiotherapy. On physical examination, a cluster of approximately fifteen 2–4 mm vesicles with focal background hyperpigmentation were observed on the underside of the left lateral breast (Fig. 1). A shave biopsy revealed a dermal proliferation of bland small-caliber ectatic lymphatic vessels some of which contained lymphatic fluid consistent with benign lymphangiomatous papules (Fig. 2, hematoxylin-eosin, original magnification $\times 100$).

BLAPs are a rare complication of radiotherapy. They have been documented in the literature most commonly in women following breast cancer treatment, but also status-post radiotherapy for ovarian and endometrial cancers.³ When evaluating vascular proliferations in the setting of prior radiation, atypical vascular lesions (AVLs) should be considered. BLAPs differ from AVLs in that they do not infiltrate the deep dermis or subcutis.² However, AVLs have been suggested to be on a histological continuum with angiosarcoma.² If there are histological features concerning for malignancy, such as poorly circumscribed, large anastomosing growth patterns spanning the dermis, immunohistochemistry staining for the C-MYC oncogene may be helpful.⁴ C-MYC has been found to be present in radiation-induced angiosarcomas, and therefore may be useful in differentiating angiosarcoma from AVLs.⁴

Treatment for BLAPs is primarily for cosmetic concerns, with surgical excision having a success rate of 75% without recurrence.⁵ Carbon dioxide lasers, cryotherapy, and cauterization have also been reported to have favorable outcomes.⁵ There is no pharmacotherapy available for treatment of BLAPs, and



Fig. 1. Inferior aspect of the left lateral breast with cluster of approximately fifteen 2–4 mm vesicles with focal background of hyperpigmentation.

What is known about this subject in regard to women and their families?

- Benign lymphangiomatous papules (BLAPs) occur following radiotherapy, and have been documented after irradiation for breast and ovarian cancer.
- This condition is also common in children without prior radiation.
- There are different therapeutic options available for aesthetic concerns.

What is new from this article as messages for women and their families?

- Care should be taken to distinguish between benign lymphangiomatous papules (BLAPs) and atypical vascular lesions (AVLs), as AVLs have histological similarities with angiosarcoma.
- Collaboration amongst dermatologists and other specialists is vital to patient care.
- Shared decision making should be used when considering or recommending therapeutic options for patients with breast cancer given the possibility of already having been subject to surgical procedures.

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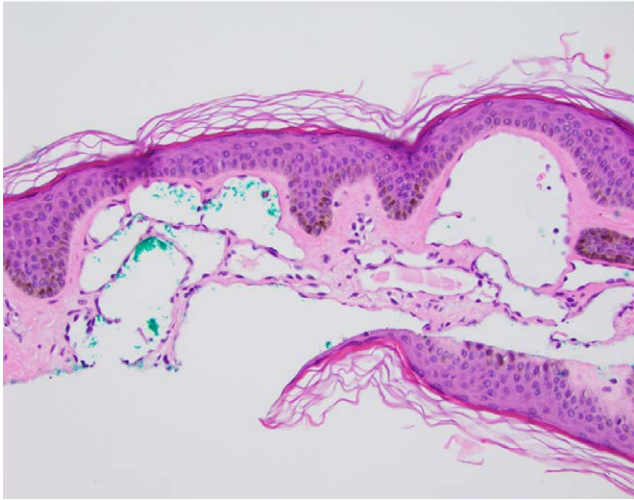


Fig. 2. Dermal proliferation of bland small-caliber ectatic lymphatic vessels, some containing lymphatic fluid.

the patient opted to forgo any treatment after reassurance of the benign nature of the eruption. Lymphangiomas secondary to irradiation are an uncommon sequela of radiotherapy and dermatologists and oncologists alike should be aware of their presentation to ensure proper evaluation, diagnosis, and treatment.

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Patient consent

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