Breast Ca Survivors May See Rise in Angiosarcoma

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NAPLES, FLA. — In the last year, Michael B. Morgan, M.D., has seen four cases of angiosarcoma on the breast of women who previously underwent radiation therapy for breast cancer.

Historically, there are only about 100 cases of angiosarcoma a year in the United States, and normally they occur in "sun-battered" areas, said Dr. Morgan, a dermatopathologist who practices in Tampa.

"I think we are at the precipice here of a real interesting and deadly epidemiologic phenomenon," said Dr. Morgan at the annual meeting of the Florida Society of Dermatology and Dermatologic Surgery.

"I don't want to be Chicken Little, but I honestly think we could be on the cusp of something big, and we need to be vigilant," he added, in an interview.

Angiosarcoma associated with irradiation of the breast was first noted back in the 1940s, and in that report it was said to be associated with chronic lymphedema. Since then, numerous other reports of angiosarcoma have appeared, but there has been controversy over whether the disease occurs frequently enough to warrant much concern.

It may be, however, that not enough women have been followed out long enough. His four cases were all women who had been treated for breast cancer 20 years previously, which corresponds roughly to the time that breast-conserving treatment with radiation became standard practice, Dr. Morgan said.

Older case series estimated an incidence of angiosarcoma in irradiated, breast-cancer patients of less than 1%; however, more recent series have suggested a prevalence of 1%, and perhaps 3%.

In a recent series of 27 cases seen at Indiana University, it was reported that only 5 of the 27 cases occurred within 3 years of irradiation treatment, and the median interval was 59 months (Am. J. Surg. Pathol. 2004;28:781-8), Dr. Morgan noted.

In that series, lymphedema was largely absent, as has been true also of Dr. Morgan's cases. However, since angiosarcoma can be associated with chronic lymphedema, Dr. Morgan said he is concerned about melanoma patients who have lymph nodes removed.

"I haven't seen this, but I worry about the rash of lymph nodes that we are taking out of people's arms and legs now with melanoma, and whether this indeed is going to end up being a risk," he said.

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DR. MORGAN

The prognosis of angiosarcoma is very poor. In a series of 47 typical angiosarcoma patients reported by Dr. Morgan, the overall survival at 5 years was only 34%, and the local recurrence rate at 5 years was 84% (J. Am. Acad. Dermatol. 2004;50;867-74).

Clinically, a typical angiosarcoma starts out as a bruiselike macule that rapidly evolves into an erythematous patch, and then to a violaceous, ulcerated nodule or plaque. The angiosarcomas on the breast may be somewhat different, because the ones he has seen have mostly been flattened, tan-colored, indurated patches that looked a little like Kaposi's sarcoma, Dr. Morgan said. It can be multifocal at presentation.

Histologically, biopsies usually show a preserved epithelium, with extravasated red cells and lots of nuclei in the deeper dermis, as one would expect of a cancer that arises from endothelial cells of the arteriovenous or lymphatic structures, Dr. Morgan said. In later stages, one can clearly see a complex, vasiform pattern of growth. The most useful stain is CD31, which confirms the endothelial derivation of the neoplastic cells, he added.

In his case series, Dr. Morgan looked at prognostic factors. He found that mitotic rate and recurrence were bad prognostic factors. But the most important factor was the depth of invasion, with a cutoff depth of 3 mm.

"This is about the worst thing I can think of to happen in your skin," Dr. Morgan said. ■