Intensity-Modulated Radiation Tx May Cause Less Acute Dermatitis

BY JANE SALODOF MACNEIL
Senior Editor

LOS ANGELES — Use of intensity-modulated radiation therapy rather than conventional radiation significantly reduced the severity and duration of acute dermatitis in a review of consecutive cancer patients who underwent whole breast radiation after breast-conserving surgery.

All but 3% of 804 women experienced some acute dermatitis during the treatments, which typically lasted 7-8 weeks, Dr. Gary M. Freedman of Fox Chase Cancer Center in Philadelphia reported at the annual meeting of the American Society for Therapeutic Radiation and Oncology.

Of all patients who were treated from 2001 to 2006 in the multivariate analysis that considered week of treatment and breast size, 61% experienced grade 2 toxicity (with 0 being no toxicity and 5 being death), according to the National Cancer Institute Common Toxicity Criteria scale for acute dermatitis. For these women, skin reactions included moderate to brisk erythema, patchy moist desquamation (mostly confined to skinfolds and creases), and moderate edema.

Of all the women who underwent radiation therapy, 34% had grade 1 skin toxicity, a category comprising faint erythema or dry desquamation. For 2%, radiation treatments resulted in grade 3 toxicity, by which minor trauma or abrasion could cause the breast to bleed and moist desquamation went beyond the skinfolds and creases.

The investigators then stratified the women and found acute dermatitis tended to be milder with the newer intensity-modulated radiation therapy (IMRT). The advantage was seen every week that treatment was given in women with all breast sizes.

Nearly half, 48%, of the 399 women undergoing IMRT had nothing worse than grade 1 dermatitis, compared with 25% of 405 women given radiation with conventional wedged photon tangents. Conversely, three-fourths of the women treated with conventional radiation, but only 52% of the IMRT cohort, experienced grade 2 and 3 dermatitis, a statistically significant difference.

The duration of grade 2 and 3 dermatitis also was shorter with IMRT. Women treated with this technique spent only 18% of their treatment weeks in this combined category, as opposed to 71% of the time for women given conventional radiation.

IMRT conveys "less toxicity to the skin during treatment and less risk of peeling of the skin," Dr. Freedman said in an interview. Longer follow-up is needed before investigators can show better cosmetic results 5 years after treatment. However, "we feel that is going to translate long term into better cosmetic results," he said.

At Fox Chase, radiation oncologists transitioned to IMRT around 2004, and use it in most cases, "insurance permitting," according to Dr. Freedman. Some major carriers have balked at the higher cost of IMRT, which employs more radiation beams and requires more planning. Where they don't disallow it outright, they may pay for IMRT only in cases of left-sided breast cancer where there is a risk of radiation damaging the heart.

"The majority of women in this country are still being treated with conventional radiation," he said, questioning the fairness of insurance industry practices limiting access to IMRT for women with breast cancer.

IMRT is favored as a way of reducing radiation doses to the bladder and rectum in men with prostate cancer, Dr. Freedman maintained. "The first thing to come through was prostate cancer, and insurance companies welcomed that with open arms," he said. "I feel breast cancer is being held to a higher standard. The same is true for head and neck cancer." ■

Deodorant Ban Challenged

Aluminum *from page 1*

aluminum-based deodorant on the treated side and no skin care products in the radiation field 4 hours before treatment.

The control group was younger—an average of 58 years vs. 64 years—but there was "no major clinical difference," Ms. Aistars and Ms. Vehlow reported at the annual meeting of the American Society for Therapeutic Radiation and Oncology.

In both groups, the average time to onset of erythema was about 13 days, with a median of 12 days in the control group and 13 days in the experimental cohort, they said.

The only patient to have no erythema was a woman allowed to use her personal deodorant at will. Whereas slightly more experimental arm patients had faint, transient grade I erythema (17 patients vs. 15 in the control group), bright grade 2 erythema occurred more often in women told to eschew skin-care products (15 patients vs. 12 in the experimental group).

Common symptoms were not measured in the control group, but these women's charts showed similar reactions to those in the deodorant of choice group, according to the investigators. Among women allowed free use of their deodorants, the leading symptoms were itching (63%), tenderness (47%), pulling (30%), and burning (20%).

Aluminum-based deodorants usually are banned during treatment and other skin care products discouraged for fear that the metal content will increase the dose of radiation delivered to the skin. The consequence—an increase in skin toxicity—not only can cause discomfort but also lead to interruptions to treatment in severe cases.

This common practice and the reasoning behind it are not supported by scientific evidence, according to the two investigators. "It's one of those things handed down through the years that really hasn't changed," Ms. Vehlow said in an interview at the poster session, where the data were presented.

Giving up a personal deodorant temporarily can seem a minor inconvenience, she acknowledged, but it adds "one more burden in terms of body image" at a time when women are anxious and under "extreme stress."

Indeed, when the women in the experimental group were surveyed at the conclusion of the experiment, 77% said they felt using their own deodorant was important. Among the reasons given were "can't go to work without deodorant," "social reasons," and "it's the only one that works for me."

Ms. Aistars and Ms. Vehlow urged that further research be done with larger numbers of women and randomization at more than one site. ■

Subungual Melanoma Often Presents Without Any Visible Pigmentation

NEW YORK — Subungual melanomas are often difficult to diagnose and thus present in an advanced clinical stage with poor prognosis, Dr. Richard Scolyer said at the Fourth International Melanoma Congress.

A review of the Sydney Melanoma Unit's experience between 1951 and 2004 showed that 124 patients presented with subungual melanoma (64 men and 60 women). The median patient age was 59 years, and the most common site was the great toe (24%). Most melanomas were locally advanced, with median Breslow thickness of 3.2 mm. Sentinel lymph node biopsy was positive in 24% (7 of 29 patients).

Follow-up data were available for 9 of 11 patients with in situ melanoma. American Joint Committee on Cancer disease stage at diagnosis, which was known in 121 patients, was the most important survival factor. Eleven patients (9%) were stage 0 (melanoma in situ), 16 (13%) were stage I, 50 (40%) were stage II, 39 (31%) were stage III, and 5 (4%) were stage IV.

The most common presentation in this group of patients was a pigmented subungual lesion or a raised or polypoid nodule, but "in more than one-third of patients (35%), there was no visible pigmentation in the affected area," said Dr. Scolyer of the University of Sydney.

Biopsies can be challenging to pathologists, in part because the features of melanoma in situ and the radial growth phase of melanoma are subtle. The most common early sign is longitudinal melanonychia. Particular red flags in these pigmented bands are increasing width, irregular width, and irregular spacing under dermoscopy, as well as extensions onto the proximal lateral nail fold (Hutchinson's sign). Subungual hematoma is important in the differential diagnosis, he said.

Unlike other melanomas, subungual melanoma is not associated with exposure to UV light, given that the nail plate is a UV barrier. Thus, incidence is similar among different ethnic backgrounds and skin tones. However, because melanomas in general are rare in people with darker skin, subungual melanomas make up a greater portion of melanomas among such persons, Dr. Scolyer noted.

—John R. Bell

Classic Histology Measures Useful in Melanoma Exam of Black Patients

BALTIMORE — Several classic parameters of melanoma histology are associated with survival and thus have a role in evaluating black patients, according to a poster presented at the annual meeting of the American Society of Dermatopathology.

"The incidence of melanoma in [blacks] is approximately 20 times lower than in [whites], presumptively because of the protective effects of melanin," wrote Dr. Doru T. Alexandrescu of the melanoma center at the Washington (D.C.) Hospital Center and his colleagues.

When blacks do present with melanoma, they are more likely to have stage III or IV disease, thicker primaries, and a poor prognosis. Histologic parameters of melanoma have not previously been described in black patients, the investigators noted.

For this study, the researchers analyzed the biopsy specimens of 68 black patients with malignant melanoma, of which 34 were evaluable histologically. The average patient age was 62 years.

Classic "histological parameters in melanoma such as Breslow depth, Clark level, ulceration, number of mitoses, and neutropism confirm their value in [black] patients by associating a statistically significant influence on survival," Dr. Alexandrescu and his associates wrote.

The mean Breslow depth of the biopsy specimens was 3.28 mm, and the mean Clark level was IV.

Pagetoid spread was found in 90% of specimens. Vertical growth phase was found in 70%, ulceration in 44%, neutropism in 36%, and necrosis in 30%.

The mean number of mitoses per high-power field was 1.36. Sentinel lymph-node positivity was 38%, and the local recurrence rate was 25%.

Tumor fibrosis was rated as none (0), mild (1), moderate (2), and severe (3). Mean tumor fibrosis was 1.5. In addition, the microvascular density inside the tumor was less (0.85) than it was under the tumor (1.85), compared with the surrounding skin.

—Kerri Wachter