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azole, and either pentan or trimethoprim sulfamethoxazole for pneumocystis (PCP) prophylaxis.

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Partial Breast Irradiation for Early Breast Cancer

To the Editor:

An icon of modern radiation oncology is the notion that patients with breast cancer treated by partial mastectomy require ipsilateral whole breast irradiation. One reason for this stems from the easy adaptability of the original McWhirter technique of tangential radiation to the chest wall for this purpose. Another reason is the need to obtain wide radiotherapeutic margins around the primary tumor. In addition, there is the belief that the rest of the ipsilateral breast outside the immediate tumor bed is "at risk."

A critical look at this practice in light of a recent negative personal experience with whole breast irradiation showed the following:

1. In patients treated with partial mastectomy and radiation, the recurrence rate in the ipsilateral breast at 20 years is 20%.[1-4]
2. Of these recurrences, 50% to 90% occur in the immediate vicinity of the original primary tumor.[2,3,5]
3. These same patients followed for 10 years would be expected to have a 5% rate of new cancers in the opposite breast.
4. Early ipsilateral recurrences (< 2 years) tend to be at the site of the primary tumor, whereas later recurrences tend to be remote from the primary.[3,5]

My interpretation of the above

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data is that the risk of recurrence in the ipsilateral breast resides almost entirely in the immediate vicinity of the primary tumor (eg, tumor bed + a 2-cm margin). The risk of recurrence in the rest of the ipsilateral breast is of the same order of magnitude as the risk of recurrence/new primary in the opposite breast. Radiation has no influence on remote recurrences/new primaries but only on true recurrences in the tumor bed.

In other words, there may be just as much point in radiating the whole of the ipsilateral breast as there is in radiating the contralateral noncancerous breast.[6] For these reasons, partial breast irradiation, eg, of the tumor bed + a 2-cm margin, should be considered, particularly:

- for very early lesions (smaller than 1 cm),
- when the tumor is well-defined clinically or with clips placed at lumpectomy, and
- for patients with large breasts in whom whole breast radiation may produce severe acute reactions and in whom improved cosmetic appearance would be expected from partial breast treatment.

Certainly, a prospective randomized study of partial breast treatment versus whole breast treatment would be an interesting one.

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