

## **Breast Cosmesis Good with Intraop RT Boost**

Updated Results, but Longer-Term Follow-Up Still Needed

BY ED SUSMAN

IENNA—Women who undergo breast-conserving surgery and receive intraoperative radiation to the tumor bed are satisfied with the outcome, researchers reported here at the St. Gallen International Breast Cancer Conference.

"Tolerance of a combined intraoperative/hypofractionated whole breast radiation regimen is excellent," said Gerd Fastner, MD, a radiation oncologist on the teaching faculty at Paracelsus Medical Universit in Austria, speaking at his poster presentation.

"The acute reactions to radiation exposure were moderate, and late reactions were insignificant in short-term assessment." Still,

since the median follow-up is just 12.6 months, the results should be regarded as preliminary until long-term follow-up for both cosmesis and tumor control can be evaluated.

After four to five months, nearly all of the women found the cosmetic results acceptable, and 84 percent said they were satisfactory. By three years (which includes just 31 patients), 97 percent called the results acceptable; and three percent said they were unacceptable. Fastner said he thought those figures would likely change as the data matures.

The doctors who evaluated the cosmesis considered all the outcomes to be acceptable; with 87 percent satisfactory at four time periods (four to five months and one, two, and three years).

"We have had no in-breast recurrences and no regional recurrences," Fastner reported. There were three cases of metastatic disease among the 645 women enrolled in the ongoing trial, and two of those women died. He suggested that these women probably had undetected metastases although they were believed to have early-stage cancer.

The participants included women with all types of breast cancer, including triple-negative breast cancer and intermediate-risk disease.

## Has Not Been Much in the Literature

Asked for her perspective, Janna Andrews, MD, Assistant Professor of Radiation Medicine at Hofstra-North Shore/Long Island Jewish School of Medicine, said the trial is important because there has not been much in the literature looking at hypofractionated whole breast irradiation with an intraoperative boost. "We are an evidence-driven practice and



an evidence-driven specialty, and I would need more evidence before offering this routinely to my patients with early stage breast cancer outside of a clinical trial.

"I would like to see five- or 10-year outcomes. We are still really at the early days in terms of general acceptance of this procedure. It seems as if the cosmetic results have held up well, in terms of having very few acute reactions and then really very few late reactions. The follow-up time of 12.6 months is short, and time will tell if the local control rates are equivalent to whole breast irradiation with standard fractionation. Right now it looks like there is a decent local control rate."

She said that the regimen offered by the European group could be given in the United States, but she would be reticent about offering it, pending further data from the European trial.

## Most Facilities in U.S. Still Using Whole-Breast RT

"In the United States there are a few different options for radiation with breast-conserving surgery," she explained. "Most facilities are still using whole breast irradiation. There are patients who are candidates for partial breast irradiation, and for these patients you can use traditional external-beam radiation or you can use intraoperative radiation therapy in one dose—and that has shown good local control rates and fairly decent cosmetic results." Fastner's trial is trying to determine if a short radiation treatment is possible, Andrew continued: "What is new in this study are the cosmetic results and doing the treatment in a shortened regimen. It has taken people a while to get their head around the idea that giving higher daily doses of radiation would not cause negative cosmetic results. That's when we started seeing a shift towards the hypofractionation.

"The question in this study is: Is hypofractionation plus intraoperative boost a problem for cosmetic results? It doesn't look like it is a problem—at least not after a year. We would like to see what it looks like two or three years from now.

"These researchers are not cutting corners in doing the appropriate treatment oncologically. They are treating the whole breast to make sure that they are addressing microscopic disease that may have been left behind. I think that the treatment is

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safe from an oncologic viewpoint. As the data matures, it will probably show local recurrence rates similar to those of the other modalities. It is the cosmetic outcome that the jury is still out on.

"This is a good trial, but I don't think the data are sufficient to change clinical practice—yet," she said. "We still have to wait to show that oncologically it is not inferior to what we are doing now, and not cosmetically inferior to what we are doing now.

"I don't want to jeopardize the possibility of curing the patient, and I don't want to gamble on the cosmetic outcome. Right now we can get a great cosmetic outcome using external-beam irradiation with a hypofractionated regimen and using a traditional boost with either electrons or photons."