75 Years & Older: No Benefit From Adjuvant Breast Radiotherapy

BY PETER M. GOODWIN

ERLIN—Further evidence that many older patients with limited-stage early breast cancer could safely omit postoperative radiotherapy (RT) after breast-conserving therapy (BCT) came from a Netherlands Cancer Registry study reported at the European Society for Medical Oncology (ESMO) Breast Cancer 2019 annual congress. The study found no mortality reduction after BCT in patients 75 years and older who received adjuvant RT as compared with similar patients who did not have radiation treatment.

“I think the most important message is that in a general population of old patients—75 years or older—the risk is already naturally reduced by the risk of dying from other causes and also [from] the shorter life expectancy itself,” said lead author Anne De Boer, MD, at Leiden University Medical Center in the Netherlands. “There’s less time for a patient to develop a recurrence. So that should be taken into account when considering radiotherapy,” she told Oncology Times.

Commenting on the findings, Ian Kunkler, MRCP, FRCR, FRCPE, from the Edinburgh Cancer Centre at Western General Hospital, University of Edinburgh, said the results “supported the omission of radiotherapy after breast conservative therapy in this age category.” But he said there could be exceptions: “I would have considerable caution [about] the omission of radiotherapy in grade 3 patients and in those who were ER- or PR-negative.

Study Details
The study looked at the effectiveness of adjuvant RT in a general population of 2,390 patients in the Netherlands Cancer Registry who were at least 75 years old, had grade 1 or 2 tumors, and were node-negative. Some patients were treated with radiation and others without because the practice of whether or not to use RT after BCT varied between centers. This divergence of attitudes towards the benefit of adjuvant RT for older patients reflected doubts already present in the clinical community. It was also true that some guidelines were already allowing BCT without RT, De Boer noted.

It had been possible to use hospitals as “instrumental variables” (IVs) to create what De Boer described as “pseudo-randomization.” She said this had been a good way of selecting comparator arms for the study because the IV did not correlate with any of the other confounding variables between patients.

Using this particular IV also had the advantage of adjusting between unmeasured as well as measured variables, she said. Although the study hospitals had differed in terms of radiation treatment, they had been similar in other ways. The investigators divided them into radiotherapy high-use (96% use), moderate-use (88% use), and low-use (72%). Comorbidities were equally distributed between the study groups, and there were no differences in the distribution of tumor characteristics.

Compared to the “radiotherapy high” group, no significant difference in locoregional recurrence risk was observed—either for the “radiotherapy middle” group (HR=1.58, p=0.24) or for the “radiotherapy low” group (HR=1.76, p=0.15). Variation in the proportion of patients treated with RT increased with age and comorbidity. But the researchers found no significant differences in locoregional recurrence risk between the groups stratified by age and comorbidity.

The study also found that absolute risks of locoregional recurrence were low in all groups. De Boer said they concluded that the omission of radiotherapy had been proven safe and they regarded shared decision-making on the use of RT as a “reasonable option.”

The study came from a well-characterized population,” said Kunkler, which he said was large. “Importantly, it comes from a high-quality comprehensive cancer registry in the Netherlands, which is probably one of the best in Europe [and] has a very strong track record.”

He noted the surgery had been of “good quality with a high proportion of patients with tumor-free margins.” The findings had been consistent with other international evidence and the conclusions of the study were justified.

Clinical Implications
De Boer acknowledged that most clinicians already knew about the need to consider the risk of dying from other causes. But it had always been difficult to decide precisely what to do and how to objectively consider it, she said. “But an easy way would be to assess whether the patient has significant comorbidities—[such as if] they experience complaints or difficulties in daily living or use serious medication for their disease.”

Clinicians could then discuss with individual patients whether there could be any practical benefit from RT in their individual cases. De Boer’s recommendation to cancer doctors: “Take the competing mortality risk into account when deciding on the absolute benefit of radiotherapy and discuss this with your patient.”

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Peter M. Goodwin is a contributing writer.