Adjuvant therapy for resected gastric cancer--rapid, yet incomplete adoption following results of intergroup 0116 trial

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PURPOSE
The Southwest Oncology Group/Intergroup 0116 (INT-0116) trial showed that adjuvant chemoradiotherapy improves survival in high-risk gastric adenocarcinoma patients. This study examined the adoption of adjuvant treatment following the trial results and the factors associated with its use.

METHODS AND MATERIALS
Between 1996 and 2003, patients aged 18-85 years with resected gastric adenocarcinoma were identified in the Surveillance, Epidemiology, and End Results (SEER) database and classified as diagnosed before (January 1996 to April 2000) or after (May 2000 to December 2003) presentation of the INT-0116 trial findings. Univariate and multivariable models were used to determine the factors associated with use of adjuvant radiotherapy (RT).

RESULTS
Of 10,230 patients studied, 14.6% were given adjuvant RT before the INT-0116 trial, increasing to 30.4% afterward (p<0.001). Significant increases in adjuvant RT from before to after INT-0116 were seen in all demographic categories. Younger patients were significantly more likely to receive adjuvant RT (44.5%, 18-59 years; 31.0%, 60-74 years; and 12.6%, 75-85 years, p<0.0001). Married patients were significantly more likely to receive adjuvant RT (30.9%) than were unmarried patients (23.6%, p<0.001). A greater depth of tumor invasion, worse nodal status, and more lymph nodes assessed were associated with adjuvant RT (p<0.0001). The rate of adjuvant RT varied from 22.9-44.2% across SEER regions. On multiple logistic regression analysis, age, SEER region, marital status, assessed lymph nodes, tumor depth, and nodal status were all significant independent predictors of the use of adjuvant RT.

CONCLUSION
Use of adjuvant RT doubled after the INT-0116 trial results became public; however, the fraction of patients receiving adjuvant RT is still low. Additional examination of the statistically significant and clinically relevant variability between different SEER regions, tumor characteristics, and patient
demographics is warranted.

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