

ACCURACY OF PATHOLOGIC EXAMINATION FOR COMPLETE RESPONSE TO CHEMORADIATION FOR ESOPHAGEAL CANCER

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Introduction: A substantial proportion of patients undergoing neoadjuvant chemoradiation for esophageal cancer are found to have a complete response to therapy. While these patients have an improved prognosis compared with incomplete responders, a substantial portion do not survive more than 5 years. We hypothesized that some residual tumor fails to be identified by the routine pathologic protocol, which entails the examination of a single 4-micron section taken through each block of tissue. We sought to determine whether complete responders are upstaged by a more rigorous examination protocol.

Methods: Patients undergoing esophagectomy for cancer at two tertiary care centers were identified through tumor registries, discharge databases, and physician databases. Archived tumor blocks were retrieved for patients with a complete pathologic response to chemoradiation, sectioned at 50-micron intervals, and re-examined for evidence of residual cancer.

Results: Seventy patients underwent neoadjuvant chemoradiation, of whom 2 had microscopic foci of disease and 26 developed a complete pathologic response. Tumor blocks were available for 23 complete responders. A total of 159 blocks were retrieved for further examination. One patient was found to have a possible residual focus of invasive adenocarcinoma versus high-grade dysplasia extending into a gland. No new evidence of residual disease was found in the remaining 22 patients.

Conclusions: A more aggressive examination protocol for post-chemoradiation esophagectomy specimens does not result in significant upstaging. The suboptimal survival of complete responders cannot be attributed to an inadequate pathologic examination protocol.