Harvesting 15+ Nodes Boosts Colon Ca Survival

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BOSTON — Resection of at least 15 nodes improves colon cancer survival at all stages, according to a study presented by Dr. Steven L. Chen at the annual meeting of the American Surgical Association.

The existence of nodal metastases is the most important prognostic factor for colon cancer, and guidelines on how many nodes to sample range anywhere from 7 to 40, said Dr. Chen, adding that the national median is 9.

Dr. Chen, who is in private practice in Santa Monica, Calif., and his colleague Dr. Anton J. Bilchik of the John Wayne Cancer Institute, Santa Monica, theorized that increasing the number of lymph nodes sampled—to at least 15—would improve survival. Using the Surveillance, Epidemiology, and End Results (SEER) database, the researchers looked at 82,892 colon cancer patients who had resections during 1998-2000. The mean number of nodes sampled was 9. Only 26% had more than 15 nodes sampled.

Using a multivariate analysis, the researchers determined survival by stage. For stage I patients with 0 nodes harvested, median survival was 132 months; for 1-7 nodes, it was 138 months; for 8-14 nodes, it was 131 months; and for more than 15 nodes, 149 months. Stage II survival was 45 months for 0 nodes; 77 months for 1-7 nodes; 99 months for 8-14 nodes; and 131 months for more than 15 nodes. Survival for stage III was 46 months for 1-7 nodes; 52 months for 8-14 nodes; and 67 months for more than 15.

Overall, when more than 15 nodes were harvested, stage I patients gained 11 months; stage II patients, 54 months; and stage III patients, 21 months, compared with harvesting 1-7 nodes.

The number of nodes harvested seemed to be one of the biggest factors affecting survival, partly because it made it more likely to find cancer, said Dr. Chen. The study also showed that node harvest is a proxy measure for quality of care, he said.

Dr. Heidi Nelson, chief of the division of colon and rectal surgery at the Mayo Medical School, Rochester, Minn., agreed that lymph node resection does reflect surgical quality. She suggested that more needed to be done to increase awareness of the importance of taking more nodes, noting that guidelines issued in 2000 by the College of American Pathologists called for a 12-node harvest.

The National Quality Forum has approved a set of quality measures on breast and colon cancer submitted by the American College of Surgeons' Commission on Cancer, one of which stipulates that the surgical specimen include 12 nodes, said Dr. R. Scott Jones, chairman of the department of surgery at the University of Virginia, Charlottesville. Dr. Jones said in an interview that some health insurance companies "are now accepting the evidence that the number of lymph nodes removed during operations for colon/rectal cancer constitute an important measure of the quality of care." He said that at least one major insurer—which he declined to identify—has notified surgeons that the company will monitor their nodal harvest.

Dr. Jones noted that Dr. Chen and Dr. Bilchik's study is one of the first to show that the number of nodes removed significantly increases survival. With these new findings and the proposed quality measures, Dr. Jones expects "a rather remarkable increase in the number of lymph nodes reported in surgical specimens in the next few years."

"Obviously, more work needs to be done," said Dr. Chen. In the meantime, he believes that at least 15 nodes should be taken. "I think this is a quality measure worth tracking," said Dr. Chen. ■