Shorter Chemotherapy Reduces Side Effects for Colon Cancer Patients

Three months of post-surgery chemotherapy worked nearly as well as the standard six-month regimen with substantially less nerve damage.

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People with moderately advanced colon cancer who received three months of post-surgery chemotherapy did almost as well as those who received six months of treatment, but had less nerve damage and other side effects that can reduce quality of life, researchers reported at the American Society of Clinical Oncology (ASCO) annual meeting this month in Chicago.

While three months of follow-up treatment with two common combination chemotherapy regimens did not quite match six months of treatment overall, the shorter regimen worked equally well for the majority of patients at lower risk for cancer recurrence.

Cancer of the colon and rectum (the large intestine) is the fourth most common cancer in the United States, according to the National Cancer Institute. Colon cancer usually starts as polyps or growths in the intestine. Screening using colonoscopies or tests that detect blood in the stool can catch cancer at an early, more treatable stage. If not detected early, it can spread to nearby lymph nodes and then to other organs (known as metastasis).

Treatment typically involves surgical removal of abnormal cells, often followed by adjuvant, or post-surgery, chemotherapy. Two commonly used regimens are known as CAPOX (capecitabine [Xeloda] and oxaliplatin [Eloxatin]) and FOLFOX (folinic acid [leucovorin], fluorouracil and oxaliplatin).

Oxaliplatin is a platinum-based drug that stops multiplication of cancer cells, but it also damages rapidly dividing healthy cells throughout the body. This can lead to side effects such as nausea, diarrhea and low blood cell counts. It can also cause peripheral neuropathy (nerve damage that causes numbness and tingling in the hands and feet). The longer treatment lasts, the greater the risk of long-term nerve damage, and it may not go away completely even after treatment is stopped.

Axel Grothey, MD, of the Mayo Clinic Cancer Center in Rochester, Minnesota, described findings from an analysis of six Phase III trials of adjuvant chemotherapy after colon cancer surgery, conducted by the IDEA (International Duration Evaluation of Adjuvant therapy) collaboration. The

results were presented at a plenary session devoted to studies deemed to have the greatest potential impact on patient care.

The analysis included 12,834 people in North America, Europe and Asia with Stage III colon cancer that had spread to local lymph nodes and had started to penetrate the wall of the bowel. At this stage, surgery alone may not be enough to prevent cancer relapse. They were treated with CAPOX (40 percent) or FOLFOX (60 percent) for either three months or the standard six months following surgery.

“We needed this large number of patients to answer the study question, but at the time this study began in 2007, it was not possible to run one study of that size anywhere in the world,” Grothey said in an ASCO press statement, noting that IDEA is “the largest collaboration of its kind in oncology.”

The pooled analysis showed that, overall, the rate of disease-free survival, meaning patients were still alive without cancer recurrence after three years, was 74.6 percent in the three-month chemotherapy group, compared with 75.5 percent in the six-month group. Although the difference was small, it did not reach the statistical threshold for determining that the shorter regimen was non-inferior to the longer one.

But looking at a subgroup of lower-risk patients whose cancer had spread to no more than three lymph nodes and had not perforated the bowel wall—around 60 percent of the study population—three-year disease-free survival was about the same in both groups: 83.1 percent and 83.3 percent, respectively.

Shorter treatment made a big difference in terms of side effects. People who were treated for three months were much less likely to develop moderate or severe nerve damage (15 percent with CAPOX and 17 percent with FOLFOX), compared with those treated for six months (45 percent and 48 percent, respectively).

“Our findings could apply to about 400,000 colon cancer patients worldwide every year. For 60 percent of these patients, who have lower risk for cancer recurrence, three months of chemotherapy will likely become the new standard of care,” Grothey said. “Aside from nerve damage, longer chemotherapy also means more diarrhea and fatigue, more doctor appointments, blood draws and time away from work and social interactions.”

For patients with high-risk colon cancer, patients and doctors should weigh the risks and benefits on an individual basis, Grothey added.

“This is a great day for patients,” said ASCO expert Nancy Baxter, MD, of St. Michael’s Hospital in Toronto. “We’re now able to spare many patients with colon cancer unnecessary side effects of an additional three months of chemotherapy without compromising results.”

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