

Chemotherapy combination outcomes differ for aged, younger colon cancer patients

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ORLANDO, Fla.--The combination of chemotherapies 5FU and oxaliplatin compared to 5FU alone after surgery for colon cancer decreases colon cancer recurrence and promotes longer survival for patients under 70 -- but not for those who are older, according to Mayo Clinic and Dana-Farber Cancer Institute scientists who will present their findings at the American Society of Clinical Oncology's (ASCO) annual meeting in Orlando, Fla.

"By combining information about many patients from a collection of studies, our analysis determined that the more aggressive combination chemotherapy does not benefit older colon cancer patients as it does for those who are younger," said Nadine Jackson McCleary, MD, PhD, Dana-Farber gastrointestinal oncologist and the lead author on the study. Jackson-McCleary is the recipient of a 2008-2009 ASCO Young Investigator's Award.

Adding oxaliplatin to chemotherapy treatment with 5FU reduces the risk of recurrence among patients less than 70 years of age who have had their primary cancer removed, the study determined, a finding that was expected based on the results of previous individual trials. Patients under 70 who were treated with 5FU and oxaliplatin had improved disease-free survival, with the addition of oxaliplatin relatively reducing the risk of recurrence or death by approximately 15 percent. Those patients aged 70 and older who were treated with the combined drug therapy, however, did not have improved outcomes compared to patients who received 5FU alone.

"We found that adding chemotherapy agents to the standard 5FU regimen in older patients after surgery did not provide the benefits that younger patients see," Dan Sargent, PhD, Mayo Clinic, a collaborator on the study, agreed. "For the older patient, this means that it is appropriate to choose the better tolerated treatment strategy of 5FU alone."

The benefit of post-surgical treatment for both young and older colon cancer patients with 5FU was documented in a 2001 [New England Journal of Medicine](#) study by Sargent and colleagues. By 2003, however, oxaliplatin was approved for use in combination with 5FU because the combination boosted the impact of 5FU on extending disease-free survival after colon cancer surgery. While the combined treatment carried additional risk of side effects, physicians prescribed the treatment strategy to patients of all ages. Initially, studies that examined age-related impact of the aggressive [chemotherapy](#) combination did not indicate a difference in survival or recurrence related to patient age.

The current study presented at the ASCO annual meeting includes a large enough patient base to powerfully discern differences related to age that are due to treatment regimen.

"The younger patients do get an additional boost from both drugs used together," Jackson McCleary noted. "Older patients don't benefit from that combination of treatment."

The findings arise from analysis of combined data collected within an expanded database by the Adjuvant Colon Cancer End Points (ACCENT) Group, a consortium of scientists. The ACCENT database includes data from more than 33,500 patients from the United States, Canada, Australia, and Europe. ACCENT is supported by the North Central Cancer Treatment Group (NCCTG); Sargent is chair of ACCENT.

"At this point we can only speculate as to why older patients do not benefit from combined chemotherapies," Jeffrey Meyerhardt, MD, MPH, of Dana-Farber and co-investigator on the trial said. "We do know that a higher number of older patients have to stop the drug before completing the full six month prescribed course of treatment."

"These studies add to the knowledge base that defines how to choose treatment strategies for every individual patient," Sargent said. "Age may become as important a consideration as tumor-specific factors when defining individual medical options for colorectal cancer patients."

Approximately half of all colon cancer patients are older than 70. While about half of the [colon cancer patients](#) over 70 will live for five years, those with recurrence typically develop additional tumors within three years. The disease is diagnosed in a million people worldwide every year. In the United States, colorectal cancer accounts for 10 percent of new cancer cases, as well as 10 percent of cancer-related deaths every year.

Source: Dana-Farber Cancer Institute

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