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'Microbeads' may boost survival in advanced colon cancer patients

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Small, preliminary study suggests radioactive beads may extend life by months in some patients.

(HealthDay News) —For advanced colon cancer patients who have developed liver tumors, so-called "radioactive beads" implanted near these tumors may extend survival nearly a year longer than among patients on chemotherapy alone, a small new study finds.

The research, from Beaumont Hospitals in Michigan, helps advance the understanding of how various treatment combinations for colorectal cancer—the third most common cancer in American men and women—affect how well each individual treatment works, experts said.

"I definitely think there's a lot of room for studying the associations between different types of treatments," said study author Dr. Dmitry Goldin, a radiology resident at Beaumont. "There are constantly new treatments, but they come out so fast that we don't always know the

consequences or complications of the associations. We need to study the sequence, or order, of treatments."

The study is scheduled to be presented Saturday at the International Symposium on Endovascular Therapy in Miami Beach, Fla. It was also published in the January issue of the Journal of Vascular and Interventional Radiology.

Goldin and his colleagues reviewed medical records from 39 patients with advanced colon cancer who underwent a procedure known as yttrium-90 microsphere radioembolization. This nonsurgical treatment, approved by the U.S. Food and Drug Administration, implants tiny radioactive beads near inoperable liver tumors.

Thirty of the patients were pretreated with the drug Avastin (bevacizumab) in periods ranging from less than three months to more than nine months before the radioactive beads were placed.

The liver is a common site for the spread of colorectal cancer, which, according to the U.S. Centers for Disease Control and Prevention, is diagnosed in about 137,000 Americans and kills about 52,000 each year. Many of the liver tumors are inoperable, leaving doctors fewer choices to help prolong patients' lives.

Avastin is commonly prescribed for colon cancer that has spread ("metastatic" cancer) because the drug hinders the growth of new blood vessels that feed tumors.

With the yttrium-90 procedure, which has been in use at major U.S. medical centers for more than a decade, a catheter is inserted into a small incision near the groin and threaded through arteries until it reaches the hepatic artery in the liver, where millions of microbeads are released near tumor sites. These beads emit high-dose radiation directly

to cancerous cells, sparing damage to healthy cells.

Goldin's team found that almost 70 percent of the 17 patients with shorter intervals—less than three months—since their last Avastin dose before receiving the microbeads needed their microbead infusion stopped early due to slow blood flow near the tumors, a much higher number than patients whose last Avastin dose was further in the past. This was expected, Goldin said, because the main effect of Avastin is to cut tumors' blood supply.

Additionally, treatment with Avastin didn't increase the survival benefit of the microbeads, which added 10 to 12 months to patients' life spans compared to chemotherapy alone, Goldin said—a survival of 34.5 months after the diagnosis of metastatic colon cancer, compared with 24 months.

"If you look at those [survival] numbers, there's a promising benefit" to using microbead radiation, he said. But the cost of both treatments is high—in the tens of thousands of dollars per patient, he noted.

Dr. Felice Schnoll-Sussman, a gastroenterologist and director of research at the Jay Monahan Center for Gastrointestinal Health at New York-Presbyterian Hospital/Weill Cornell Medical Center in New York City, said the study won't change her clinical approach to treating metastatic colon cancer. But "it's important for us to try to tease through the different treatment recommendations and understand how one treatment affects another," she said.

"Maybe it helps you understand timing, which is never a terrible thing," she added. "This is the art of treatment of metastatic colorectal cancer—it's in the tweaking of the treatments."

More information: The U.S. National Cancer Institute has more about

metastatic cancer.

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