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Q&A: KRAS Testing

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Q: Should I be tested for the KRAS mutation before beginning colorectal cancer treatment?

Recent research confirmed that the mutation status of the KRAS gene in colon cancer patients can determine if the tumor will respond to therapies that inhibit the epidermal growth factor receptor. If the mutation is present, there is little to no likelihood the patient will respond to Erbitux (cetuximab) or Vectibix (panitumumab), the two drugs affected by the new research. If it is not present, the chances for a response are better, though not guaranteed.

In January, the American Society of Clinical Oncology recommended all advanced colorectal cancer patients undergo testing to determine if the mutation is present before receiving treatment.

We have made progress in treating advanced cancer during the past 30 years by developing new drugs and treatment regimens. Most notably, by using our understanding of what drives cancer cell growth, targeted therapies have been developed to attack malignant cells instead of normal cells. Targeted therapies are expensive, can cause side effects, and don't work for everyone, but now with the identification of the KRAS gene we have a way to predict—with a reasonable degree of accuracy—which colorectal cancer patients would benefit from Erbitux or Vectibix and which patients should receive other treatments.

As we move forward in the era of individualized medicine, we can look forward to the day when the genetic makeup of each person's cancer will be analyzed, revealing the appropriate targeted therapy to treat the disease. This will lead to better responses and tumor control, hopefully with fewer side effects and possibly lower health care costs, which in turn will mean greater access to these drugs for the patients who need them.

Read more about KRAS and colorectal cancer in “Bittersweet Gene” from the Winter 2008 issue, available at www.curetoday.com/bittersweet_gene.

—Len Lichtenfeld, MD, is deputy medical officer for the American Cancer Society