

A New Way to Predict Who Will Benefit From Colorectal Cancer Chemotherapy?

A new study proposes using circulating tumor DNA as a biomarker to guide chemotherapy treatment decisions for CRC patients.

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Over 30% of patients with stage II or stage III colorectal cancer (CRC) and 60-70% of patients who undergo [oligometastatic](#) resection experience cancer recurrence. Stage II or III CRC is usually treated with surgery followed by adjuvant chemotherapy (ACT). However, patients with clinical and pathological risk factors only see a 10-15% decrease in cancer recurrence with standard ACT.

Now, a [new study](#) proposes using circulating tumor DNA (ctDNA) as a predictive biomarker to guide chemotherapy treatment decisions in CRC patients.

ctDNA is a [minimally invasive biomarker](#) that can help oncologists measure disease status and progression during cancer therapy, including the detection of [molecular residual disease](#) (MRD). In this study, researchers evaluated whether ctDNA following surgery could predict disease recurrence in early-stage CRC.

The study enrolled 1,563 patients with:

- Stage II or III CRC
- Surgically resectable stage IV CRC
- Recurrent CRC were prospectively enrolled in the study

Blood samples were collected before and at predetermined time intervals after surgery (up to 18 months), and imaging was performed every six months until 18 months after surgery. MRD, defined as ctDNA positivity after surgery or therapy, is strongly associated with poor prognosis in patients with surgically resectable CRC. Of the 1,039 patients included in the ctDNA analysis, 18.0% were ctDNA positive four weeks after surgery.

Researchers discovered that patients with high-risk stage II, stage III, and stage IV CRC, who were ctDNA-positive four weeks after surgery, benefited from ACT. ctDNA was identified as the most

significant risk factor for CRC recurrence in these patients, and ctDNA positivity is an important predictor of ACT benefit.

Regardless of the pathological stage of CRC, patients with a higher risk of recurrence based on ctDNA status may benefit from ACT, while those with negative ctDNA status may be able to avoid unnecessary ACT. These findings can guide clinicians in making evidence-based treatment decisions for CRC patients.

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<http://beta.docker.cancerhealth.com/blog/new-way-predict-will-benefit-colorectal-cancer-chemotherapy>