Researchers report on ctDNA-based detection of residual disease prognostic for resected CRC

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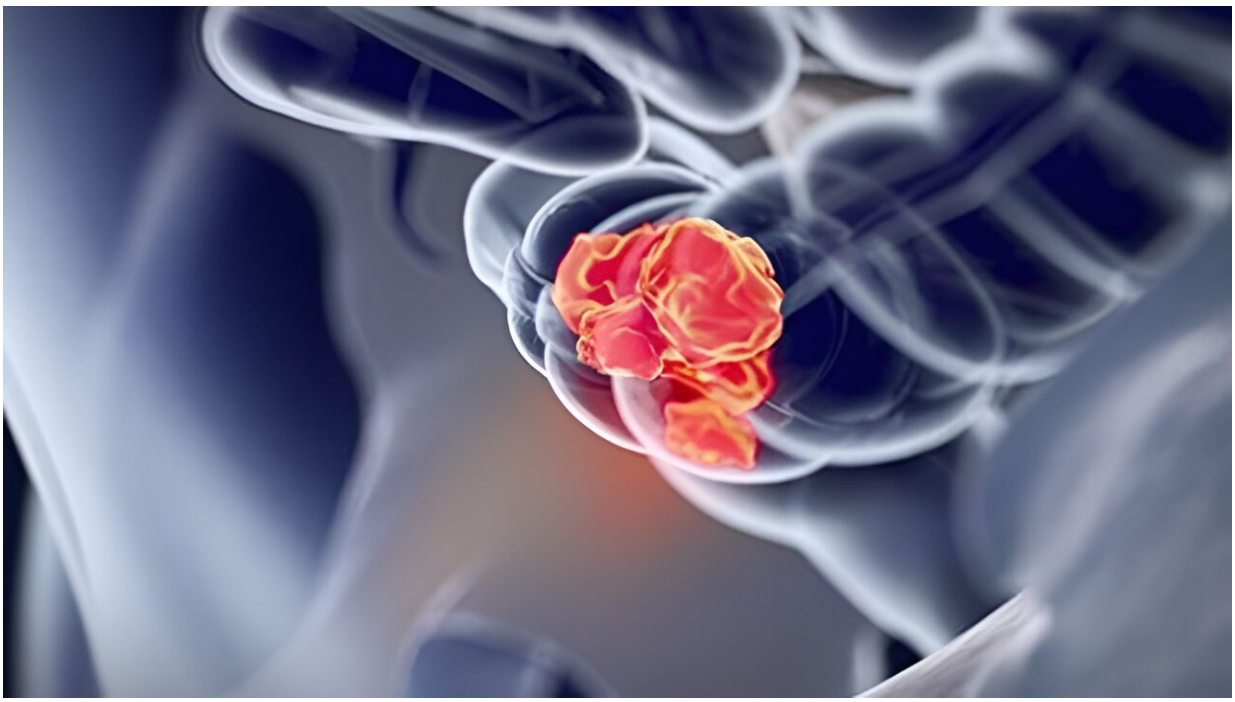

For patients with radically resected, stage II to IV colorectal cancer (CRC), circulating tumor (ct)DNA-based detection of molecular residual disease (MRD) in response to adjuvant chemotherapy (ACT) is prognostic of outcomes, according to a study presented at the American

Society of Clinical Oncology annual Gastrointestinal Cancers Symposium, held from Jan. 18 to 20 in San Francisco.

Hiroki Yukami, M.D., Ph.D., from the Osaka Medical and Pharmaceutical University in Takatsuki, Japan, and colleagues used a personalized, tumor-informed assay for the detection and quantification of ctDNA in serial plasma samples collected after surgery in patients with radically resected, stage II to IV CRC to examine the correlation of ctDNA dynamics with outcomes. Patients underwent treatment with adjuvant chemotherapy (ACT; 1,000 patients) or observation (1,518 patients) after curative-intent surgery. The primary end point was disease-free survival.

Patients were followed for a median of 16.3 months. The researchers found that during the postoperative MRD window, ctDNA results were available for 2,093 patients: 14.8 and 85.2 percent were ctDNA-positive and ctDNA-negative, respectively. Disease-free survival was significantly inferior for patients who were ctDNA-positive during the MRD window (MRD-positive) compared with those who were MRD-negative (hazard ratio, 15.75).

In an analysis of ctDNA dynamics from MRD detection to a three-month time point, those who remained ctDNA-positive were significantly more likely to have a recurrence compared with those who had ctDNA clearance (hazard ratio, 5.4). Among MRD-positive patients treated with ACT, a ≥50 percent decrease in ctDNA levels at six months was associated with better disease-free survival (hazard ratio, 2.39).

"Monitoring ctDNA during surveillance allows for early detection of cancer recurrence, which can potentially enable early intervention, improve the chances of a cure, and/or extend survival," Yukami said in a statement.