Biomarker test predicts recurrence of HPV-driven oropharynx cancer after treatment

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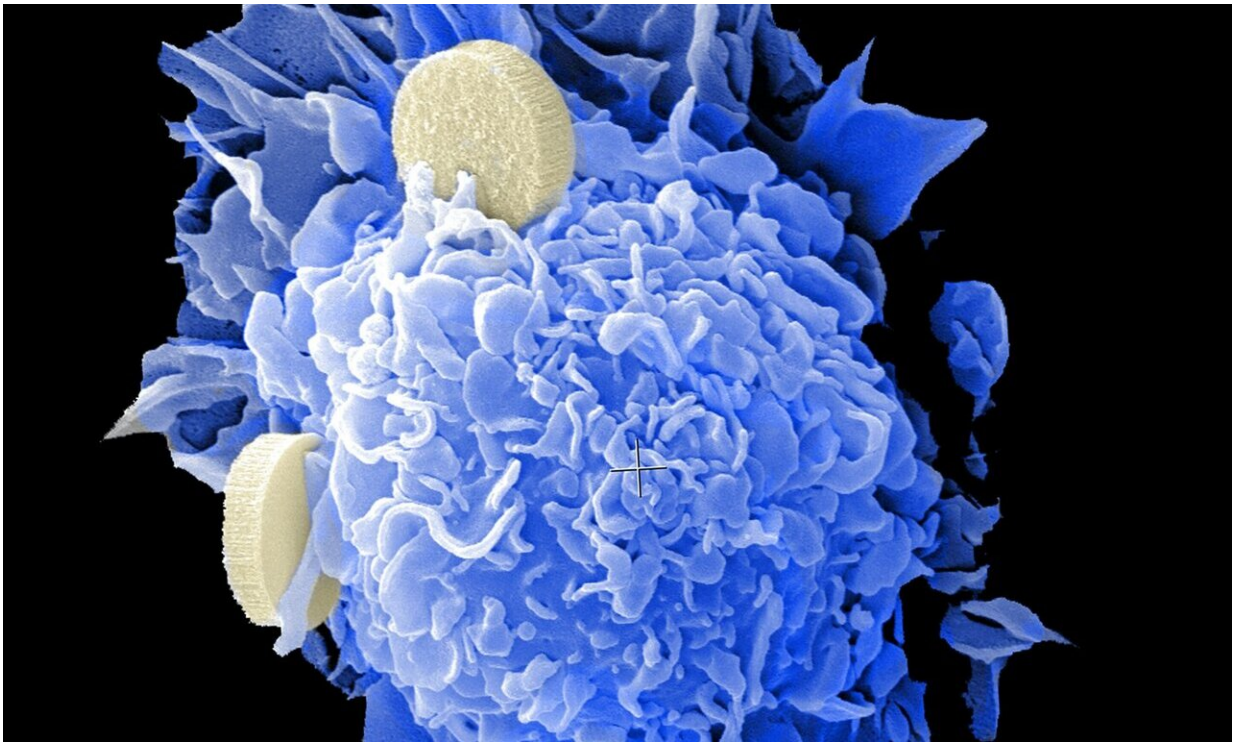

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A large, multi-institutional study demonstrates that a blood test to detect circulating tumor DNA can accurately predict recurrence of HPV-driven oropharyngeal cancer following treatment. Results also indicate that the biomarker test may detect recurrent disease earlier than imaging or other standard methods of post-treatment surveillance, allowing physicians to

personalize treatment more quickly for patients whose cancer returns. Findings from the study will be presented today at the 2022 Multidisciplinary Head and Neck Cancers Symposium.

Roughly 15-25% of patients with HPV-driven oropharyngeal cancer experience recurrence after treatment, often presenting as distant disease that has spread past the throat and neck. Currently, recurrence is detected primarily through imaging and physical exams, but there is wide variability in the use and frequency of these surveillance methods.

"While detection of tumor-specific DNA circulating in a patient's bloodstream has shown potential as a powerful yet minimally invasive diagnostic tool for several cancers, this is the first study to demonstrate broad clinical utility and validity of the biomarker in HPV-driven oropharyngeal cancer," said presenting author Glenn J. Hanna, MD, Director of the Center for Salivary and Rare Head and Neck Cancers at the Dana-Farber Cancer Institute.

In the study, researchers retrospectively examined data from 1,076 patients who had one or more tests to detect circulating tumor tissue modified viral (TTMV)-HPV DNA as part of their post-treatment surveillance. All patients were examined more than three months after completing standard treatment with surgery, radiation therapy and/or chemotherapy.

Of the 80 patients (7% of the total sample) who tested positive for the biomarker in surveillance, 95% were confirmed through imaging, biopsy and/or endoscopy as having recurrent HPV-positive disease. The presence of TTMV-HPV DNA was the first indicator of recurrence for 72% of the patients whose cancer returned, and roughly half of the recurrences (48%) were found in patients tested more than 12 months after completing therapy.

"Most patients had no other evidence of disease or clinically indeterminate disease status at the time of their first positive biomarker test," said Dr. Hanna. "Incorporating a test for TTMV-HPV DNA into routine post-treatment follow-up can enable physicians to detect recurrent cancers earlier and allow us to start recommended interventions more quickly to improve outcomes."

More information: Study: astro.confex.com/astro/hncs202 … gapp.cgi/Paper/46907

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