Blood, saliva prototype finds most oral cancers

MIAMI, USA: A new test that uses blood and saliva to detect head and neck cancers has shown promise in a small number of patients, researchers said.

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While it will likely be years before the test is available to the public, the findings by researchers at Johns Hopkins University have raised hope for a cheap screening test that dentists or doctors could one day deliver during regular office visits.

Head and neck cancers affect some 50,000 people in the United States each year and are on the rise among men. The main risk factors are alcohol, smoking and human papillomavirus (HPV), a common sexually transmitted infection that often goes undetected.

"We have shown that tumor DNA in the blood or saliva can successfully be measured for these cancers," said lead author Nishant Agrawal, associate professor of otolaryngology and oncology at the Johns Hopkins University School of Medicine.

The study involved 93 patients with cancer that had previously been diagnosed. In patients known to have HPV-driven cancers, scientists searched patients' blood and saliva samples for certain tumor-promoting, HPV-related DNA.

In those with cancer not linked to HPV, they looked for mutations in a handful of cancer-related genes. The researchers found tumor DNA in the saliva of 71 of the 93 patients (76%) and in the blood of 41 of the 47 (87%).

About half of the patients provided both saliva and blood samples to the scientists, and the combined tests found tumor DNA

in 45 of those 47 people (96%). "Combining blood and saliva tests may offer the best chance of finding cancer," said Agrawal.

More trials on a larger number of patients are needed before the test can seek market approval. An early form of the test may costs thousands of dollars, but down the road it could be offered for $50 in a dentist's office or primary care setting, the researchers said.

"Our ultimate goal is to develop better screening tests to find head and neck cancers among the general population and improve how we monitor patients with cancer for recurrence of their disease," said co-author Bert Vogelstein, professor of oncology at the Johns Hopkins Kimmel Cancer Center.

The research is published in the 24 June 2015 issue of Science Translational Medicine.

Source: AFP via I-Net Bridge