

Sponge cytology-sampling device promising for Barrett esophagus Dx

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(HealthDay)—A swallowable cellular retrieval capsule sponge cytology-

sampling device, EsophaCap, in combination with a methylation biomarker panel represents a promising strategy for diagnosing Barrett esophagus (BE), according to a study published online Jan. 22 in *Clinical Cancer Research*.

Zhixiong Wang, from the First Affiliated Hospital of Sun Yat-Sen University in Guangzhou, China, and colleagues conducted a prospective cohort study on 80 patients (52 in the [training](#) set and 28 in the test set). Methylation on beads was used to extract and bisulfite-convert DNA. Quantitative methylation-specific polymerase chain reaction was then used to assess methylation levels of eight candidate markers.

The researchers found that five of eight candidate methylation biomarkers were significantly higher in BE patients than controls in the training set. A four biomarker-plus-age lasso regression model was constructed for BE diagnosis and had an area under the receiver operating characteristic curve (AUC) of 0.894, with sensitivity and specificity of 94.4 and 62.2 percent, respectively, in the training set. In an independent test set, the model had high accuracy (AUC, 0.929), with sensitivity and specificity of 78.6 and 92.8 percent, respectively.

"These findings suggest that this approach is a promising low-cost strategy for the early detection of BE," the authors write. "Future large-scale studies are indicated to consolidate and further validate this [strategy](#)."

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

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