LETTER TO THE EDITOR

Non-endoscopic capsule sponge test: Rethinking Barrett's oesophagus screening

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Gastro-oesophageal reflux disease (GORD) is a common condition and can progress to Barrett's Oesophagus (BE) and subsequently oesophageal Carcinoma (EC). EC ranks sixth as the cause of cancer-related deaths, and has a 5-year survival rate of less than 25%.[1] Early detection of BE and EC may prolong survival and improve clinical outcomes. Therefore, there is a need for effective, time-efficient and cost-effective screening methods.

A capsule sponge test is a simple, quick and minimally invasive test to triage GORD patients.[2] The test uses a simple device consisting of a sponge, enclosed within a capsule, attached to a string. The capsule is swallowed and dissolves within the stomach rapidly releasing the sponge. The sponge is retracted through the oesophagus, collecting a sample, by pulling on the string. The collected sample is stained and undergoes histopathological examination.

The gold standard for investigation of reflux symptoms, Upper GI endoscopy comes with limitations including invasiveness, expertise, cost and capacity constraints. Furthermore, the majority of endoscopies carried out for reflux symptoms do not yield pathology, burdening both patients and healthcare systems.[3] Healthcare systems around the world are facing the challenge of increasing wait times for endoscopy as the demand surges coupled with resource constraints.

Capsule sponge testing is an alternative technique that has shown immense potential. The results from a recently published multicentre prospective cohort study in the UK by Gourgiotis V et al.[2] are encouraging; capsule sponge test proved to be a safe and reliable triage test for GORD. It is interesting to note that of all the patients with a negative sponge test who subsequently underwent endoscopy, none had BE or EC suggesting a high specificity of the test. In addition, the study also demonstrated a high level (82%) of satisfaction with the test by patients. Another study by Shaheen, NJ et al. showed a high rate of sample adequacy, test accuracy and patient acceptability in a US population.[4] Initial results from the ongoing BEST4 Screening trial are also promising.[5]

The potential of the capsule sponge test as a minimally invasive, quick and cost-effective screening method presents a new frontier in BE screening. This pioneering technique calls for a broad-scale investigation to further establish its safety, acceptability and efficacy. Clinical trials with follow up data and a diverse population are required for a thorough analysis of its effectiveness across various age groups and demographics, and to validate its potential as a screening test to replace the need for invasive endoscopyin low risk population.

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