

GERD

Office-based diagnosis of GERD within spitting distance?

Levels of pepsin in the saliva could be used to help diagnose patients with GERD. A recent study in *Gut* has helped to identify the pepsin concentrations that could be used in this noninvasive, practical approach.

Current methods to identify patients with GERD include questionnaires, empirical PPI treatment, endoscopy and ambulatory reflux monitoring. However, these methods do not have high sensitivity and specificity; moreover, they can be costly and invasive.

Pepsinogen, the precursor to pepsin, is released by gastric chief cells, thus the presence of pepsin in the oesophagus is suggestive of

gastro-oesophageal reflux. Detection of pepsin in the saliva has been proposed for the diagnosis of GERD, particularly as this approach could represent an attractive 'office-based' method for diagnosis. Until now, however, no consensus has been reached on normal values in healthy individuals.

Jamal Hayat (Queen Mary University of London, UK) and colleagues decided to investigate this issue, with the aim of determining normal values of salivary pepsin as well as the ability of salivary pepsin to distinguish patients with reflux-related symptoms (such as GERD and hypersensitive oesophagus) from patients with functional heartburn.

100 asymptomatic control individuals and 111 patients with heartburn were enrolled in the study. All participants underwent impedance-pHmetry reflux monitoring and salivary pepsin determination on waking up and after lunch and dinner. Patients were divided into three groups according to acid exposure time (AET) and symptom association

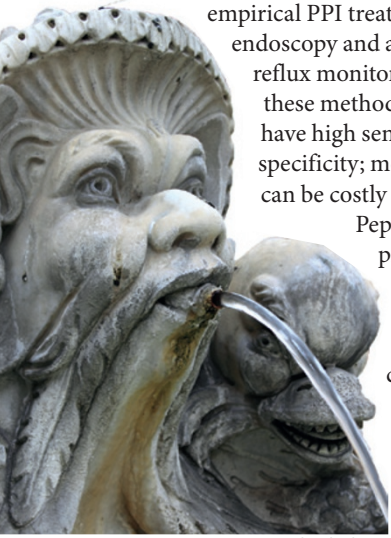
probability (SAP): GERD (increased AET); hypersensitive oesophagus (normal AET and SAP); and functional heartburn (normal AET and negative SAP).

Results from the study show that up to one-third of asymptomatic healthy individuals might have pepsin in their saliva. Nonetheless, patients with GERD or a hypersensitive oesophagus are more likely to have pepsin in their saliva and at higher concentrations than control individuals and patients with functional heartburn.

"In patients with symptoms suggestive of [GERD], salivary pepsin testing may complement questionnaires to assist office-based diagnosis," the researchers conclude. They suggest that if this test is validated, it might improve diagnosis of GERD in children and in patients not responding to treatment.

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Original article Hayat, J. O. *et al.* Pepsin in saliva for the diagnosis of gastro-oesophageal reflux disease. *Gut* doi:10.1136/gutjnl-2013-307049



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