Gastro-oesophageal reflux disease (GORD) is well entrenched in the clinician’s mind. But, is it a spurious or artificial concept and what do we actually know about it? There are just too many things that don’t add up.

When communicating with patients most doctors still cite the traditional concepts relating to GORD, that it is related to one or more of the following: ‘excessive acid’ into the oesophagus; ‘failure of the valve’ at the gastro-oesophageal junction; ‘delayed gastric emptying’; and ‘damage’ at the lower oesophagus. Regrettably, none of these holds true. And, as clinicians who base our explanatory models on what we construct for our patients we are almost certainly on the wrong track.

GORD IS NOT NORMALLY RELATED TO EXCESSIVE ACID

The ‘excessive acid’ explanation is clearly flawed as acid-secretion levels are normal in people with GORD (except rarely, in the Zollinger–Ellison syndrome), lower oesophageal sphincter pressures are not different (although periods of relaxation may be more frequent) and there seems to be no consistent evidence about delayed gastric emptying in the majority of sufferers. Worse still, in terms of explanatory models, there is no consistency from symptom association analyses when symptoms are evaluated against pH monitoring.

THE IMPACT OF ACID-SUPPRESSION DRUGS

The increase in prevalence of GORD coincided with the era of acid suppression drugs. The mid-1980s saw the widespread use of the histamine H2 receptor antagonists in volumes far greater than were anticipated for ulcer disease alone. The more powerful acid suppressors, the proton-pump inhibitors (PPIs), were also indicated initially for peptic ulcers but have become the mainstay for GORD. The more powerful acid suppressors ascribed to GORD are heartburn and regurgitation. These seem convenient and well encapsulated within our thinking. But, how reliable and consistent are these? In the Diamond study,2 the authors, many of whom were part of the initial Montreal Consensus, critically assessed the value of symptoms in patients judged as having GORD. The results were startling as well as revealing: that GORD was considered to be present in only 65% of patients so diagnosed initially and that only 49% of patients with GORD selected heartburn or regurgitation as their most troublesome symptom. Therefore the value of these symptoms is questionable.

IS THE PPI TEST WORTHWHILE?

Furthermore, the use of esomeprazole, a PPI, in therapeutic doses proved neither sensitive nor specific for the diagnosis of GORD and a 2-week course of this did not add to diagnostic precision.2 This clearly challenged the previously-held adage that a PPI response test could help to distinguish patients with GORD from other conditions. In pragmatic terms a positive result merely indicates that the patient has improved, rather than indicating what the problem happens to be, and there is the placebo effect to be considered. This reflects the common experience of GPs who are used to variable responses to PPIs for what they perceive to be GORD. Studies confirm that the majority of patients on long-term PPIs continue to suffer moderate to severe symptoms.2 The corollary to this is the perverse therapeutic mindset which assumes that either the patient has been non-compliant or that the doses and timing of the acid suppression agents need to be altered.

Against this confusing backdrop, what are we actually treating? Manie et al in a seminal paper on GORD management,4 reported on patients taking twice-daily PPIs. Of the 200 patients in their study, 86% had continuing symptoms. Using impedance pH measurements they demonstrated that only 8% of them had acid reflux, 35% had non-acid reflux, and that in 57% their symptoms were not related to reflux at all. These findings, since confirmed, shed new light on the origins of so-called GORD symptoms, indicating that at least some patients have an aetiology not related to reflux per se, and also not related to acid.

Meanwhile, the prevalence of GORD as we understand it is rising. The Norwegian HUNT Research Centre reports a 31% increase in the prevalence of gastro-oesophageal symptoms over 10 years to 2009 with a corresponding 47% increase in the frequency of symptoms.5 Startlingly, the increase is strongly marked in those aged >60 years, a stage at which possible cancer is an issue.

CHALLENGES AND NEW CONCEPTS

A number of new concepts have emerged which challenge our traditional understanding of GORD. Firstly, the discovery of the acid pocket, demonstrated by Beaumont et al,4 whereby acid is noted to accumulate after a meal above the stomach contents, below the gastro-oesophageal junction and, in those with a hiatus hernia, into the hernia sac. These predispose to acid reflux and pH pull-through studies, which measure acid exposure at different parts of the oesophagus, have demonstrated the drop...
"It is likely that no such entity as GORD actually exists..."