Gastro-oesophageal reflux disease: a re-appraisal

Gastro-oesophageal reflux disease (GORD) is a common problem, with an estimated prevalence in western societies of 10–20% and a lower, but probably rising, prevalence in the east. A recent systematic review of the epidemiology of the condition found that wide variations in the diagnostic criteria used made comparison or meta-analysis of the various studies difficult.[1]

Two years ago an expert group of 44 primary and secondary care clinicians from 18 countries embarked on a series of systematic reviews and a Delphi process to derive a new, globally-applicable definition of GORD that would be useful for clinicians and their patients, for researchers and for regulatory agencies. The report on the 'Montreal Definition' has recently been published in the *American Journal of Gastroenterology* and contains a number of important messages for primary care.[2]

The cardinal symptoms of GORD are heartburn and regurgitation. However, lack of a gold standard for the diagnosis of GORD and the variable use of terminology in different studies and in different countries has created problems. Heartburn is now defined as a burning sensation in the retrosternal area and regurgitation as the perception of flow of refluxed gastric content into the mouth or hypopharynx. Reflux of acid gastric content is usually responsible for the symptoms of heartburn, although non-acid reflux of substances such as bile may be important in a minority of patients.[3]

It is hoped that these new definitions will improve the consistent use of terminology in both natural history studies and in clinical trials. However, these typical reflux symptoms do not equate with GORD unless they are regarded by the patient as troublesome and have an adverse effect on well-being. In population-based studies 'troublesome' has generally equated to having mild symptoms on 2 or more days a week, or more severe symptoms at least once a week, although the patient's definition of 'troublesome' is most important. These physical symptoms may, of course, also be associated with troubling concerns about the possibility of more serious problems, such as heart disease and cancer.[4]

The diagnosis of GORD can almost always be made on the basis of symptoms alone, so that beginning treatment without an endoscopy and on the basis of typical symptoms is entirely appropriate. It is equally important to recognise that up to half of patients in primary care with typical reflux symptoms have no visible oesophageal lesions at endoscopy — 'non-erosive reflux disease.'[5] Indeed the relationship between symptoms and endoscopic appearances in GORD is poor and endoscopic findings are of only marginal value in guiding therapy, unless of course complications are detected endoscopically in the face of apparently adequate treatment.[6]

As well as these typical symptoms, GORD may be accompanied by other problems related to heartburn and regurgitation, including sleep disturbance and chest pain. Sleep disturbance is remarkably prevalent in reflux disease. A population survey of over 15 000 responders in the US found that heartburn occurred during the sleep period in 25% of those with reflux symptoms[7] and other studies have reported a prevalence of sleep disturbance ascribed to heartburn and/or regurgitation ranging from 23 to 81% of people with reflux disease: similar data have emerged from clinical trials of therapy for GORD.[8]

There was strong support for the assertion that chest pain, indistinguishable from ischaemic cardiac pain, can be caused by reflux disease, and that gastro-oesophageal reflux can cause chest pain resembling ischaemic cardiac pain without accompanying heartburn or regurgitation.[2] Although oesophageal motor disorders also cause pain resembling ischaemic cardiac pain, chest pain is more frequently caused by acid reflux than by conditions such as nutcracker oesophagus and oesophageal spasm.[9]

Perhaps the most important new idea emerging from this consensus process is the concept of GORD as a spectrum of disease, running from symptomatic GORD through the potential complications of haemorrhage and stricture formation, into the pre-malignant condition termed Barrett's oesophagus and on to adenocarcinoma, which is now regarded as a complication of GORD, albeit a rare one.[2]

The risk of adenocarcinoma appears to rise with increasing frequency and duration of heartburn. There also seems to be a worldwide increase in the incidence of oesophageal adenocarcinoma in parallel with the rising prevalence of reflux disease.[10]

The relationship between GORD and respiratory disease remains controversial. While reflux disease is rarely the sole cause of chronic cough, chronic laryngitis or asthma, potential mechanisms of 'reflux cough' include aspiration of acid material and indirect, neurally mediated, pathways. However, in the absence of heartburn or regurgitation, unexplained asthma and laryngitis are unlikely to be related to GORD, and careful review of medical and surgical trials aimed at improving these putative 'reflux' respiratory problems indicates that they are associated with uncertain and inconsistent treatment effects.[11]

Although the focus of the Montreal process was on definition and classification, there are some further messages for investigation and treatment. While the concept of 'alarm symptoms,' which may indicate complications and mandate urgent investigation, is important, dysphagia is common in GORD and should only be investigated when it is progressive and troublesome and persists after treatment has been established. Response to treatment with acid suppressive (usual proton pump inhibitor) therapy is also a useful guide to diagnosis: when heartburn is readily alleviated by treatment, this is strong indirect evidence for acid regurgitation, and reviewing response to treatment is more useful in monitoring

GORD than thinking about doing serial endoscopies.[2]

While effective acid suppression is likely to remain the cornerstone of therapy for GORD, non-pharmacological measures should always be considered, particularly as stopping smoking, reducing heavy drinking and addressing obesity have other self-evident health benefits. The role of non-drug factors in GORD has recently been reviewed[12] and the evidence both for and against postural and dietary interventions is remarkably thin, although there is some support for raising the bedhead, avoiding post-prandial stooping, avoiding late evening meals and cutting out dietary provocants of various kinds. The most compelling evidence is that for the role of obesity, and of differences in the distribution of visceral and subcutaneous fat, which provides an obvious target for intervention. Finally, the role of psychological factors in the aetiology and exacerbation of reflux symptoms has not been extensively studied but in view of the health beliefs concerning heart disease and cancer held by many patients with upper gastrointestinal disorders probably deserves more attention.

GORD imposes a significant health burden, because of its high prevalence, and has substantial adverse effects on patients' lives. It is associated with significant morbidity and is a risk factor for increased mortality because of its aetiological link with adenocarcinoma of the oesophagus. Prescription of proton pump inhibitors accounts for around 15% of prescribing costs in general practice in the UK, making accurate diagnosis and appropriate management of particular importance. The new global definition of GORD provides valuable information to improve diagnostic precision and complements existing guidance on best practice.

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General practice specialty training: an innovative programme

With the implementation of *Modernising Medical Careers*[1] has come a radical change to the structure of postgraduate medical training in the UK. The first cohort of young doctors completing foundation programmes are now in their second year of foundation training and will be considering application to specialist training commencing August 2007. This major policy change took place in parallel with revision of the criteria within the regulatory framework of the Postgraduate Medical Education and Training Board for approval of specialist training in general practice, prompting UK deaneries to review current general practice vocational training schemes. It has been reported that around 60% of UK medical graduates have not decided their final career destination 18 months after graduation.[2] Deaneries across the UK face the challenge of developing new general practice specialty training programmes, which not only fulfil the need to train doctors who are equipped with the competencies required for 21st century primary care, but also, by being attractive training programmes, encourage recruitment of high calibre doctors to general practice.

Since the inception of the original vocational training regulations in 1979, GP vocational training schemes have historically consisted of 2 years at senior house officer (SHO) grade in hospital and 1 year as a GP registrar in practice. It has long been recognised that there is a need to review GP training and there is sufficient evidence to challenge the value of these traditional schemes. The position statement of council of the European Academy of Teachers in General Practice supports a unified training programme for Europe but acknowledges that the minimum training period of 3 years, as