Functional bowel disorders are probably the most common conditions that a gastroenterologist will encounter. Outpatient clinics are frequented by patients with symptoms of dyspepsia, abdominal discomfort, bloating, nausea/vomiting, diarrhoea and constipation. These symptoms are often vague and the cause difficult to determine; in some ways it can be a relief to recognise an abnormality, such as an ulcer or inflammation, that can be treated successfully! However, what happens if there is no abnormality on examination and all the conventional tests, such as blood tests or an endoscopy, are normal? How should one treat these patients? Are the symptoms all in the mind? These patients are often very vulnerable, having already seen a number of gastroenterologists and not received adequate answers. This sadly leads to overinvestigation and often reinvestigation of the patient. The lack of a diagnosis leads to patient dissatisfaction with the medical profession, but also frustration on the part of the clinician. Unfortunately, this is mainly because of the paucity of efficacious treatments for, as yet, an undefined diagnosis and patients are labelled as having ‘functional’ problems.

Unfortunately, these symptoms can be chronic and patients become very anxious, stressed or even depressed by the chronicity of their symptoms. These symptoms are, of course, very real to them and prevent them from leading a normal and fulfilling life. There is also a socioeconomic impact due to absenteeism from work. We often refer them to a psychiatrist, perhaps because we really do not understand the basic mechanism for the production of these symptoms.

Years ago, during my training, I was brought up by my consultants to believe that the brain and the gut were linked; an idea which was ahead of its time then. Nevertheless, we always had a psychiatrist working with us in the gastroenterology clinic. This dual specialty involvement had huge benefits in managing a patient’s problems, as we could work together on both the mind and the physical aspects of the symptoms. We certainly did not understand any of the mechanisms underlying the symptomatology and treated the patients empirically on a symptomatic basis. However, even now, this dual involvement is still of great benefit to patients.

Over the last decade or so, techniques for the measurement of various aspects of the gastrointestinal tract have improved enormously. Research workers were able to demonstrate abnormalities in, for example, motility tests but often with no link to a clinically associated condition. At one stage we were searching for a clinical disorder so that we could use and apply these techniques, rather than the other way round! However, we are now at a stage where abnormalities shown by these techniques can reliably be duplicated and have a good correlation with symptoms. Although there is still much work to be done to demonstrate the actual cause and effect, the conundrum is gradually unravelling. The term ‘functional’ is applied to clinical symptoms where no diagnosis is found, i.e. by exclusion of currently known disorders based on the current investigatory tools.

Functional bowel disorders are a heterogeneous group of conditions where the pathophysiology is still not clearly understood. The Rome consensus group has done much to clarify these disorders and define them in an ordered fashion. Prior to this there was much confusion in the field but the classification has helped researchers to collate results based on these particular criteria and get a common database to help find therapeutic options. Many of the articles in the literature were published before the Rome criteria were described, and therefore meta-analyses are difficult because of the variability of the descriptions for stated inclusion and exclusion criteria for a review.
This issue concentrates on functional bowel disorders affecting different parts of the gastrointestinal tract: the oesophagus, the gastroduodenal area and the bowel. These reviews are all based on the current Rome III consensus criteria developed about 10 years ago, and it is worth noting that the consensus group is currently in the process of defining the Rome IV criteria.

Oesophageal disorders are divided by the Rome III criteria into functional heartburn, functional chest pain, functional dysphagia and globus. In diagnosing these, gastro-oesophageal disease must be ruled out as it can cause all the above symptoms. Gastroscopy with biopsies, and high-resolution manometry are used, the latter to exclude a motility problem. Although empirical therapy with a proton pump inhibitor for at least 4 weeks can exclude most patients with reflux, further testing with reflux monitoring with pH-metry or multichannel intraluminal impedance pH studies may be required. The pathophysiology of this condition is still not well understood but the authors have described helpful algorithms for the diagnosis of these conditions.

Rome III recognizes four gastroduodenal syndromes: functional dyspepsia, belching disorders, nausea and vomiting disorders and ruminating syndrome. Ruminating syndrome is very rare and not discussed in detail here. Again, the definitions are based on the exclusion of any pathology by negative standard investigatory tests. However, there have been many advances in these conditions in terms of pathophysiology and also therapy.

One of the state-of-the-art reviews is on irritable bowel syndrome (IBS). This condition is very common and probably accounts for about 40% of consultations in gastrointestinal clinics. The article discusses the pathophysiology and the different types of IBS and gives a suggested algorithm for the management of these patients.

These reviews are up to date and evidence based as far as is possible in an emerging specialty, which is now becoming well established under the title of ‘neurogastroenterology’. They offer some help in elucidating the problem and document possible therapeutic options. All the lead authors come from a single specialist centre of neurogastroenterology in London, and are leaders in their field. The specialty is clearly advancing rapidly and one looks forward to a time when we can have realistic therapeutic options which are based on a clear understanding of the mechanisms for the treatment of patients with functional bowel disorders.

Food allergy and intolerances are also topical and controversial subjects and there appears to be an increased prevalence among the population. Many people report adverse reactions to food, usually based on the person’s subjective symptoms following the ingestion of particular foods. The National Institute of Allergy and Infectious Diseases has defined a food allergy as an ‘adverse health effect arising from a specific immune response that occurs reproducibly on exposure to a given food’. This can be either an IgE- (e.g. urticaria, anaphylaxis) or a non-IgE- (e.g. a food protein-induced enteropathy) mediated reaction. An IgE-mediated reaction can often be seen in patients who are atopic. However, many people report an ‘allergy’ but we are unable to confirm this with the currently available tests. An allergy that produces physical signs is easier to document than one that might produce vague symptoms of tiredness or fatigue. There is much controversy about the subject, particularly in adults, although they are better documented in children. Food allergy is often confused with food intolerance. These are even more difficult to confirm as they are non-immune and may be related to an enzyme deficiency (e.g. a disaccharidase deficiency), a toxic compound (e.g. a bacterial toxin) or a pharmacological compound, such as vasoactive amines (e.g. tyramine). The paper on food allergy provides the background and immunogenesis of the condition with some sensible advice on treatment. Clearly there is still much to be done in this area.

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