

## AEROPHAGY UNMASKED

Patients who constantly belch prove something of a mystery to most clinicians. Standard tests for reflux reveal few abnormalities, but as reported by Bredenoord *et al*, the new technique of impedance monitoring clarifies the matter considerably. The rate of gastro-oesophageal reflux and swallowing both liquid and air was equal between controls and patients with aerophagy, as was the frequency of air moving from stomach to proximal oesophagus (a normal or gastric belch). However, the patients also showed a unique pattern, the supragastric belch with air passing down as far as, but not beyond, the lower oesophageal sphincter and then returning proximally. The air enters the oesophagus in two ways, either by being sucked in by negative oesophageal pressure or being pushed in by positive pharyngeal pressure. Treatment must be behavioural and explaining the origin of the belch to the patient may well help in this process.

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## CANNABIS AS A CAUSE OF CHRONIC VOMITING

The causes of chronic vomiting are often obscure so the report from South Australia is of great interest. They describe 14 cases of cyclical vomiting in 9 of whom chronic cannabis use appeared to be the likely cause. Seven individuals ceased cannabis and their symptoms resolved, three of whom relapsed on re-challenge. The authors noted an unusual feature of compulsive hot showering or bathing which the patients felt alleviated the symptoms of nausea, vomiting, and abdominal pain. It is not clear why this syndrome develops after chronic use but may represent accumulated toxicity from one of the 60 different compounds found in crude cannabis. As cannabis laws are liberalised, we may expect to see more of this unusual form of toxicity.

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## GAS AND FIBRE: AN UNFORTUNATE MIX?

Although many studies suggest dietary fibre is beneficial to health, many patients cannot tolerate high doses.

Indeed, patients with irritable bowel syndrome often report that it aggravates symptoms, particularly bloating and flatulence. The study reported by Gonlachanvit *et al* investigated the possibility that viscous fibre impairs the passage of gas through the gut and hence leads to distension and gas retention. Gas was infused at 12 ml/min via a jejunal tube and its expulsion via a rectal tube monitored. Adding 30 gm/day of the viscous gelling agent, psyllium, markedly impaired gas expulsion and hence induced gas retention. Whether this is a direct physical effect of fibre or indirect via altered motility patterns remains to be determined but it certainly suggests a mechanism as to why a high fibre diet is often poorly tolerated.

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## SELF MANAGEMENT FOR IBD

Empowering patients is not only politically correct but, as Kennedy and colleagues show, also good clinical practice. This is a substantial study by a group of researchers in northwest England covering 19 hospitals. 682 patients entered into a randomised trial of treatment as usual *v* a patient oriented self management programme. This consisted of a patient guidebook, a written self management plan, and direct access to services allowing them to self refer. The programme also involved training clinicians in patient centred consultation techniques. At 12 months the patients in the self management group had attended on average one less outpatient appointment and showed a reduced "did not attend rate" (8% *v* 12% for controls). They also had 0.36 (0.6 to 0.1) fewer self reported disease relapses in the year. This reduced use of hospital service was not at the expense of general practice because visits to general practitioners were unchanged. The most telling statistic is that 74% of patients prefer to continue with the programme at the end of the 12 months. The authors suggest that if this system were adopted by the entire healthcare system there is a potential saving of £20 million a year in the UK alone.

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## ANTISENSE TECHNOLOGY FOR IBD?

As we improve our understanding of the inflammatory cascade in IBD it becomes possible to intervene in more selective ways. The pivotal role of the intercellular adhesion molecule (ICAM-1), whose upregulation during inflammation facilitates leucocyte migration to the gut, provides just such a selective target. An oligodeoxynucleotide antisense molecule, alicaforsen, was designed to downregulate mRNA for ICAM-1 and delivered as an enema. Groups of 8 patients (total of 40 patients) were allocated to placebo or increasing doses of alicaforsen (0.1–4 mg/ml) as 60ml enemas self administered at night. There was a dose dependent improvement at 1, 3, and 6 months including bleeding, activity index, and endoscopic scores. Although conclusions must be cautious this provides evidence that larger trials against standard treatment would be justified.

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## THROMBIN, TIMPS, AND LIVER FIBROSIS

Several recent publications highlight the fact that prothrombotic tendencies aggravate fibrosis in patient with chronic viral hepatitis. This suggests a role for thrombin which has been experimentally confirmed in a study reported by Duplantier *et al*. Fibrosis induced by carbon tetrachloride was significantly reduced by a thrombin antagonist, which did not itself alter carbon tetrachloride induced liver toxicity. The authors argue that anti-thrombin agents act not so much by inhibiting coagulation but by preventing the activation of protease activated receptors whose activation stimulates expression of profibrogenic connective tissue growth factor, type I collagen, and tissue inhibitor of metalloproteases-1 (TIMP-1). TIMP-1 mRNA was selectively downregulated by the thrombin antagonist. This may be important because of TIMP-1's inhibitory effect on matrix degradation and also its anti-apoptotic effect on fibrogenic cells. Thrombin antagonists might, therefore, be the basis of novel treatments for liver fibrosis.

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