

respectively; partial clinical responses (defined as CAI < 6, EI > 4) were observed in 20% and 15% of patients, respectively. Adverse effects occurred notably less frequently in the granulocytapheresis-treated group (10%) than in the methylprednisolone-treated group (50%).

The authors conclude that, although a significant difference in efficacy was not observed, granulocytapheresis might be preferable to corticosteroid therapy in certain patients, such as those with frequent ulcerative colitis flares, diabetes or arterial hypertension.

Original article Bresci G *et al.* (2007) Treatment of patients with acute ulcerative colitis: conventional corticosteroid therapy (MP) versus granulocytapheresis (GMA): a pilot study. *Dig Liver Dis* 39: 430–434

Bethanechol is an effective treatment for ineffective esophageal motility

There is no reliable treatment for ineffective esophageal motility (IEM), a disorder caused by failed smooth-muscle contraction that is common in patients with gastroesophageal reflux disease. Bethanechol is a muscarinic receptor agonist that has been used to improve motility in patients with gastroesophageal reflux disease, and has produced increased peristaltic and lower esophageal sphincter pressures in normal volunteers. Agrawal *et al.* evaluated the effect of bethanechol on smooth-muscle contraction in patients with IEM.

The investigators used combined multi-channel intraluminal impedance and esophageal manometry to measure the transit of saline and viscous solutions before and after the administration of bethanechol in seven patients with severe IEM. Compared with baseline, increased contraction amplitudes were observed in the distal esophagus 20 min and 40 min after bethanechol administration. Peak amplitude in the distal esophagus occurred at 15 min. The percentage of ineffective swallows fell from 68% at baseline to 23% after 40 min for the saline solution, and from 83% to 47% at 20 min and 67% at 40 min for the viscous solution.

The authors conclude that bethanechol produces a substantial increase in the contraction pressure of esophageal smooth muscle, leading to improved bolus transit in patients with severe IEM. The results suggest

a role for cholinergic nerves in the control of esophageal peristalsis.

Original article Agrawal A *et al.* (2007) Bethanechol improves smooth muscle function in patients with severe ineffective esophageal motility. *J Clin Gastroenterol* 41: 366–370

Obesity increases transient lower esophageal sphincter relaxation

Mechanical stress imposed on the gastroesophageal junction might explain the high prevalence of GERD among the obese population. Transient lower esophageal sphincter relaxation (TLESR) is the most important mechanism associated with GERD, and might be the only one present in patients with mild reflux disease. Wu and colleagues, therefore, investigated the relationship between obesity and TLESR in patients without GERD.

In this prospective study, the authors consecutively enrolled three groups of patients matched for age and sex: 28 obese (BMI > 30 kg/m²) individuals, 28 overweight (BMI 25–30 kg/m²) and 28 normal weight (BMI < 25 kg/m² and ≥ 20 kg/m²; controls). Patients did not have reflux esophagitis, hiatus hernia or a peptic ulcer. Patients had been referred for preoperative assessment of weight reduction procedures, had globus or noncardiac chest pain and had not responded to PPI therapy. All patients underwent preprandial and 2 h postprandial esophageal manometry and esophageal pH monitoring.

During the preprandial period all patients' gastroesophageal characteristics were similar. During the postprandial period the rate of TLESR and gastroesophageal gradients were raised among obese and overweight patients. Significantly greater proportions of the patients than controls had TLESR with acid reflux (63.5% and 51.8% vs 17.6%, *P* < 0.001). The pH was lowered for longer in overweight and obese individuals than in normal weight individuals. BMI and waist circumference positively correlated with TLESR.

Although the reasons behind the increasing rate of TLESR with rising weight are unclear, the authors suggest that abnormal lower esophageal sphincter function is an early event in obesity-related GERD.

Original article Wu JC *et al.* (2007) Obesity is associated with increased transient lower esophageal sphincter relaxation. *Gastroenterology* 132: 883–889