

# ENDOSCOPIC ASSESSMENT OF THE SMALL BOWEL

## Introduction

### ENDOSCOPIC ASSESSMENT OF THE SMALL BOWEL Introduction and indications

The requirement to visualise, biopsy and treat the small bowel is far less than in the stomach, biliary tree or colon, resulting in a time lag in technological advances. The most frequent indication is investigation of gastrointestinal blood loss, which may present with either recurrent iron deficiency anaemia - (occult haemorrhage) or recurrent overt blood loss per rectum (cryptic haemorrhage) in a patient with normal OGD (which includes the investigation of malabsorption; the exclusion of cryptic small bowel inflammation such as Crohn's disease in patients with diarrhoea/abdominal pain and evidence of an inflammatory response; targeting lesions seen on radiological investigations; and surveillance for neoplasia in patients with inherited polyposis syndromes). A standard enteroscope is able to reach and biopsy lesions detected in the proximal small bowel; however, even in the most experienced hands this is limited to approximately 100 cm distal to the pylorus, although the use of a stiffening overtube may increase this somewhat. The procedure takes approximately 45 minutes and may be uncomfortable, requiring high doses of sedation with the attendant increased risk of perforation and sedation-related morbidity. Therefore, until recently, barium follow-through or enteroclysis were the most effective imaging modalities to visualise the distal duodenum, jejunum and ileum. Obviously, these techniques do not give true mucosal views, and outside specialist centres their decreasing use has led to diminished expertise and a reduced diagnostic yield. There have been rapid advances in axial radiological techniques such as MRI and CT enterography, which demonstrate excellent diagnostic accuracy in this area (see Chapter 8). However, although these techniques may yield information about vascularity and bowel wall thickening, they do not allow direct mucosal views, have no biopsy capability and have limited scope in terms of therapeutics. Historically, if an area of interest was outside the reach of a standard enteroscope, direct access via enterotomy under either laparoscopic or open surgery was required. Two major clinical advances have revolutionised small bowel diagnosis and therapeutics. First, the development of the capsule endoscope allows diagnostic mucosal views of the entire small bowel to be obtained with minimal discomfort in unsedated patients. Second, the novel technique of single-/double balloon enteroscopy allows endoscopic access to the entire small bowel for biopsy and therapeutics (Table 9.4).

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