Small Intestinal Bleeding; Pathogenesis, Recent Investigation and Management

Essay

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قَالُوا سُبْحَانَكَ لاَ عِلْمَ لَنَا
إِلاَّ مَا عَلَّمْتَنَا إِنَّكَ أَنتَ
الْعَلِيمُ الْحَكِيمُ
صدق الله العظيم
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Introduction

The small intestine, beyond the duodenal bulb where inflammatory changes are common, is an uncommon site of hemorrhage **(Lewis et al., 1992)**

It is estimated that in only 3% to 5% of patients with gastrointestinal bleeding has the site been located between the second portion of the duodenum and the ileocecal valve **(Netterville et al., 1998)**

Bleeding within the small bowel beyond the duodenal bulb (from here on referred to simply as **small intestinal bleeding**, unless massive, is often difficult to diagnose **(Peterson, 2001)**.

Several causes of obscure gastrointestinal bleeding were noted though evaluating many cases; ulcers (peptic, NSAID, GERD, crohn's and anastomotic), vascular (angiodysplasia and lymphangiomas), tumors and others (diverticulosis and mickel's diverticulum) **(O'Loughlin et al. 2004)**

Several factors are responsible for the inability to find the source of small bowel blood loss. In addition to being an unusual site of bleeding and not routinely considered, the small bowel is relatively inaccessible as compared with the stomach and colon; the length of the

small intestine, its free intraperitoneal location, vigorous contractility, and overlying loops confound the usual diagnostic techniques; for example, although classically the ileum is located in the right lower diagonal of the abdomen and the jejunum is located in the left upper diagonal of the abdomen, these locations are variable. **(Spechler et al., 2002)**

All these characteristics limit the diagnostic ability of barium studies, limit endoscopic intubation, and limit the identification of specific sites by the special imaging techniques of nuclear medicine scans and angiography; in addition to these technical problems, the bleeding rate may be slow or intermittent, not allowing identification by angiography or bleeding scan. The yield of a small bowel series for diagnosing tumors of the small intestine is quite low, and all barium studies, including enteroclysis, cannot diagnose angiodysplasias, which are the commonest cause of **small intestinal bleeding (Thompson et al., 1997)**

New modalities in small intestinal bleeding diagnosis are improved and now include radiographic methods (small bowel follow through and enteroclysis), endoscopic methods (push enteroscopy), wireless capsule endoscopy and intraoperative enteroscopy