

# بسم الله الرحمن الرحيم





# شبكة المعلومات الجامعية

## التوثيق الالكتروني والميكروفيلم



# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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# Push enteroscopy as an investigation of small intestinal diseases

Thesis Submitted for Partial Fulfillment of MD

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# INTRODUCTION

The development of the technique of push enteroscopy has allowed endoscopic examination of the jejunum, but the technical aspects still do not allow the full examination of the small intestine from above and further development is needed to achieve this goal, the place of push enteroscopy in the investigation and treatment of small intestinal disorders is becoming clear, although efficacy and cost effectiveness require further clarification (*Mackenzie, 1999*).

**Diarrhea** frequently accompanies small bowel disease, resulting from direct mucosal involvement by inflammatory or infiltrative lesions. The associated malabsorption of fat & bile salt is an important factor in the pathogenesis of diarrhea of this condition. An important clue to the presence of small bowel disease is presence of fat malabsorption with presence of mucosal damage or lymphatic obstruction. The presenting symptoms may relate to any of the features of malabsorption syndrome or protein losing enteropathy & should direct the attention to the small intestinal disease (*Brasitus and Stirin, 1990*).

**Gastrointestinal bleeding** due to small bowel disease may be detected as occult bleeding or, less commonly brisk hemorrhage. In general, bleeding from the small intestine causes melena while bleeding from the colon causes passage of red blood or clots (*Thomas & Kert, 1997*).

Evaluation of patients with gastrointestinal bleeding can be very difficult. These patients have gross bleeding or melena or they may have positive results of occult fecal blood testing & associated iron deficiency anemia. A variety of

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diagnostic modalities are available to the physician, and a decision must be about how extensively to evaluate these patients (*Rockey D et al., 1998*).

In patients with **portal hypertension**, congested jejunopathy was found. Histology shows increase in size & number of vessels in the jejunal villi. The mucosa is oedematous, erythematous & friable. Similar changes were found in the duodenum (*Nagraal et al., 1994*).

Inflammatory bowel disease is a general term of chronic inflammatory disorder of unknown cause involving gastrointestinal tract, it includes Crohn's disease & ulcerative colitis.

**Crohn's disease** may involve the buccal mucosa, oesophagus, stomach, duodenum, jejunum & ileum. A similar picture may occur either alone or with small intestinal involvement (*Stenson & MacDermott, 1991*).

In **ulcerative colitis** when there is involving of the entire colon, there may be minimal involvement of a few cms of the terminal ileum referred to as back wash ileitis (*Steson & MacDermott, 1991*).

**Push enteroscopy** is a relatively recent technique for examination of the small bowel beyond the duodenum. Initial studies of push enteroscopy reported on the per oral use of colonoscope for the examination (*Foutchpj et al., 1985*). Longer, slimmer, detected video enteroscopies, which can be advanced further in small bowel, have since been developed (*Barkin et al., 1992*).

# AIM OF THE WORK

To assess the *diagnostic efficacy of push enteroscopy* in detection of small intestinal affection in patients with chronic diarrhea, iron deficiency anemia, overt GIT bleeding, and to study the macroscopic and microscopic changes of the jejunum in patients with liver cirrhosis, oesophageal varices and portal gastropathy.



