GASTROINTESTINAL ENDOSCOPY

ADVANCES IN DIAGNOSIS AND THERAPY

Volume One

Edited by

P. R. Salmon

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Contents

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Preface

Over the past ten years a new dimension has been added to the study of digestive tract disease by the introduction and development of fibreoptic endoscopy. Throughout this period of time, quite rightly, considerable emphasis has been placed on the technology of fibreoptic endoscopes and their supporting systems and the need to train doctors to perform careful, skilful examinations. To this end a proliferation of books have appeared concentrating on these aspects. It should not be forgotten, however, that at the same time there have been enormous advances in imaging techniques, in interventional radiology and in the therapeutic demand and applications of flexible endoscopes. As a result of these changes, an annual meeting was convened three years ago by myself entitled 'Growing Points in Endoscopy'. These meetings have been sponsored by Pyser Ltd, UK distributors of Fujinon flexible endoscopes. The first four meetings have proved so successful that it was decided to produce a book encapsulating a number of important subjects highlighted by the meetings. The choice of material has entirely been my own and in no way attempts to cover the whole of digestive endoscopy. It is hoped however that this book will provide an insight into the rapidly changing and developing art and science of fibreoptic endoscopy and its expanding role as a therapeutic discipline.

P. R. Salmon

Section A

GASTROINTESTINAL HAEMORRHAGE

'The Difficult Bleeder – Recent Advances'

I

Endoscopic diagnosis

G. N. J. TYTGAT

Expertly performed endoscopy appears, in most instances, to offer the best available method for identifying the source of the bleeding lesion.

In principal, emergency endoscopy should be performed in any patient with upper intestinal bleeding and, in experienced hands, a firm diagnosis can be obtained in 80–90% of the patients. Endoscopy may not be applicable when bleeding is so massive that immediate surgery appears to provide the only hope of saving the patient's life. In this situation, endoscopy may be useful in the operating room to help the surgeon in locating the bleeding lesion.

The popularity of emergency endoscopy persists in spite of the fact that improved diagnostic accuracy has not yet been shown to improve overall patient survival. Indeed the mortality rate of around 10% has been unchanged for the past three decades [1, 2, 3]

THE ENDOSCOPIC PROCEDURE

Emergency endoscopy should be performed preferably in the endoscopy unit where all the necessary equipment is available. Many units have an emergency trolley set up each evening. If necessary this can be taken to the operating room or to the intensive care unit.

It is imperative that full resuscitative facilities are available together with skilled staff experienced in dealing with emergencies. Few units have specialized endoscopy nurses, available at night or during the weekends. As an alternative, intensive care nurses may be trained to assist during emergency endoscopy. Endoscopy should not take place until resuscitation procedures and any necessary transfusions are under way to correct hypovolemia. It is also wise to wait at least four hours after recent intake of food or barium.

A major debate has centred around the optimal timing for emergency endoscopy. When endoscopy is performed early it is usually possible to define the real cause of bleeding. Stigmata of recent bleeding may disappear within 24 hours. Varices or ulcers which have bled may look blameless 1–2 days later and by that time, an acutely ill patient may have developed acute gastric or duodenal erosions which may be interpreted erroneously as the original bleeding source. Forrest *et al.* [4] showed that bleeding lesions were found in 78% of the patients if endoscopy was carried out within 24 hours of admission but in only 32% if this was delayed to 48 hours. This was largely confirmed by the recent ASGE prospective bleeding study in which it was shown that early endoscopy offered the highest likelihood of finding an oozing or pumping lesion. The yield of actively bleeding lesions which was overall 32.6% increased to 41.5% when endoscopy was performed within the first 12 hours of admission. No increase in the incidence of active bleeding lesions was detected if the interval from admission to endoscopy was shortened to 3–6 hours [5]. Most units have evolved a compromise by which most bleeding patients are examined within 18–24 hours of admission. The majority of the examinations are fitted into the routine endoscopy lists within normal working hours, when the entire endoscopy team is present. However the availability of a skilled endoscopist on short notice for the most urgent problems, including nights and weekends, is mandatory.

Although many endoscopists perform urgent endoscopy without sedation, it is wise in an anxious patient to use some intravenous sedation cautiously. Most often diazepam is used [5].

Routine gastric lavage with iced, diluted saline solution before the endoscopy is not necessary because the endoscopic examination is hampered by massive amounts of blood in less than 5% of patients. In that case, the endoscope should be removed and reintroduced after performing lavage with a large bore multiple-holed tube (Ryle or Ewald tube). The quantities of fluid necessary for adequate evacuation of blood and clots vary greatly and often amount to at least two litres. There is no prospective study that shows that an attempt to induce local gastric hypothermia with iced fluid stops massive bleeding. Most would agree however, that it makes subsequent endoscopy easier and more informative. When bleeding stops, the return becomes clear. A small amount of coffee-ground material, small bits of old clots or slight pink discoloration are consistent with the cessation of significant bleeding. A clot may block the tube but this should not happen with proper lavage technique. Although suction should not be exerted via the tube lest confusing lesions be created for subsequent endoscopy, the lavage fluid should be injected with sufficient force to dislodge any clots that may be present. Drainage on the other hand should be by gravity. Occasionally the tube is localized to a small pocket which appears clear despite active bleeding distally. This artefact can be minimized by moving the tube back and forth. A large plastic 'overtube', placed over the endoscope prior to insertion is increasingly used. Once the instrument has passed into the stomach, the overtube is slid through the pharynx and past the cardia. If excess blood is encountered, it is easy to withdraw the endoscope leaving