EDITORIAL

THROUGH AN ENDOSCOPE

The modern fiberoptic instruments may have in several respects revolutionalised the practice of gastroenterology, yet Gastrointestinal Endoscopy is still viewed by some as unnecessary specialisation. One may be tempted to say that there is some vested interest on specialisation. It is admittedly a costly procedure as it involves heavy capital expenditure on delicate and easily damaged instruments and long years of training. However the latter is not always the case. In the United States, thousands of endoscopes are purchased yearly and used with little or no formal training. It has been estimated that there are probably 4 to 5 untrained or poorly trained endoscopists to every one trained endoscopist practising at present.

The modern fiberoptic endoscopes appear so simple and easy to use that many are tempted to embark on endoscopies with little or no guidance. Their apparent simplicity is deceptive, for beyond the basic manipulative skills lies the depth of experience needed in interpreting what is seen. A false negative examination is worse than not having an examination, as it lulls the victim into a false sense of security. Conversely a diagnosis of malignancy where none exists subjects the patient to much suffering and anxiety and probably culminates in unnecessary mutilative surgery. The incidence of trauma and other major complications is undoubtedly higher in untrained hands.

The high degree of manipulative skill required in endoscopy is best learnt by the apprenticeship system of personal experience under the guidance of an expert. Secondhand experience through lectures, demonstration, or recordings also have a role, but self instruction is the most difficult and least desirable for reasons already mentioned. Trainees in an established teaching unit can learn endoscopy in the course of their specialty training programme. As for others training remains a difficult problem as few centres in the world can afford special attachments for the intensive training they require.

Having mastered the necessary technical and interpretive skills we need a careful and honest appraisal of the clinical role of these procedures. The use of fiberoptic gastrointestinal endoscopy may be viewed under 3 separate headings:—

(1) Diagnostic
(2) Therapeutic
(3) Research

Diagnostic Endoscopy

The complication rate for routine diagnostic endoscopy using present day instruments is very low and in experienced hands should be virtually nil. The most common problems result from premedication or local anaesthetic used prior to the examination. Many centres in Japan and the States have now abandoned their use because of the ease and comfort with which examination with present-day fiberscope can be done. What is now clear is that given equally skilled radiologist and endoscopist, there is little difference in accuracy between barium studies and endoscopies. However endoscopy does have an edge in picking up small superficial mucosal lesions as well as providing a tissue diagnosis. Barium studies may be less demanding for the patient and marginally safer, but in terms of cost-effectiveness, endoscopy must surely come out ahead. The two techniques are best looked on as complementary to each other but the extent to which endoscopy can replace barium studies will depend on many factors. First and foremost, few countries have the kind of service that can cope with an open demand and still maintain the quality of the examination and the advantage of endoscopy. Therefore for the present there will continue to be a variable mixture of radiology and endoscopy depending on the skill and enthusiasm available in each discipline. Likewise the indications for endoscopy will also vary. The next question to be asked is whether accurate diagnosis worthwhile. Prognosis for patients with cancer of the oesophagus and stomach in general is appalling and has not improved significantly in the past several decades. Without significant improvement in therapeutic measures it can be argued that diagnostic accuracy is futile. Similarly in acute upper gastrointestinal bleeding there is no convincing proof that early accurate diagnosis affected patient morbidity or mortality. However we cannot measure advantages

to the patient in terms of morbidity or mortality alone. Obviously our attitude to and management of the patient will vary depending on the diagnosis. Patients may be spared the suffering of unrewarding lines of management if the true diagnosis is known. There is now incontrovertible evidence that gastric cancer can be diagnosed endoscopically at an early stage and that surgery at this stage results in a better than 90% 5-year survival as compared with under 10% for this type of cancer at a later stage.

Therapeutic Endoscopy

Whereas the main developments in diagnostic endoscopy have now been achieved, the era of therapeutic endoscopy is just emerging. Removal of almost all types of foreign bodies from the oesophagus, stomach, duodenum, colon and rectum can now be achieved through the biopsy channel of the fiberoptic endoscope using a variety of grasping forceps and other devices. Transendoscopic treatment of bleeding lesions in the gut is moving from the experimental to the practical stage. Sclerosing agents may be injected around bleeding varices. Bleeding points may be staunched with diathermic coagulation. More recently coagulation using laser beams has had encouraging results. Endoscopic removal of polyps in the rectum and colon is one of the most important contributions from fiberoptic endoscopy of the lower gastrointestinal tract. Besides the much lower morbidity and mortality, there is large financial savings, in terms of hospitalisation and length of time off work when compared with surgery. As an effective prophylaxis against cancer of the large bowel its future benefits may prove enormous. Transendoscopic sphincterotomy of the papilla of Vater is fast gaining popularity in Europe. After sphincterotomy, impacted stones in the common bile duct may pass spontaneously or can be removed with snares, grasping forceps or wire baskets. Patients with high operative risk can thus be spared the hazard of major surgery.

Research Application

There are many areas in which fiberoptic endoscopes can be used as powerful research tools. Accurate observation of lesions such as peptic ulcers or colitis leads to better documentation of response to new drug therapy. The ability to collect specific mucosal specimens or pure secretions with the endoscope provides many new avenues of exploration.

The growth of fiberoptic gastrointestinal endoscopy is reaching a peak in many developed countries. The advantages and drawbacks of this procedure are presently being assessed. As with any other tools, the results will depend in the end on the skill, enthusiasm, and foresight of those who use them. Contrary to the belief in some quarters, the need for this type of endoscopic examination has not been manufactured by the specialist. The need was there and the specialist has come to fill this need. As far as we in Singapore are concerned, with our high incidence of gastric carcinoma and the limited number of trained endoscopists, this need is yet to be adequately met.