Are complications of endoscopic sphincterotomy age related?

EDITOR,—Deans *et al* (*Gut* 1997;41:545–8) have supported the use of endoscopic sphincterotomy for bile duct stones in young people in preference to laparoscopic bile duct exploration. They do this because sphincterotomy causes no more complications in young than in old people. Any comparison between the two methods must also take into account the complications, particularly pancreatitis, that occurred in the remaining two-thirds of the patients undergoing endoscopic retrograde cholangiopancreatography (ERCP) without sphincterotomy. Laparoscopic duct exploration is still a relatively new technique. Rhodes *et al* reported 129 explorations with one case of postoperative pancreatitis.¹ We have had no pancreatitis in 53 explorations. Until larger series are reported judgement is impossible.

For the treatment of bile duct stones a comparison of therapeutic success and the manoeuvres required to achieve it are required on an intention-to-treat basis.

The consequences of sphincterotomy and reflux in the very long term are not known. Most bile duct stones are predominantly composed of pigment, thought to be caused by reflux through an incompetent sphincter.² They are seen in about 10% of patients after sphincterotomy but these data include only small numbers of young patients with long term follow up. Data for the events of 20–30 years after sphincterotomy are not available, yet a quarter of the patients in the study of Deans *et al* might be expected to live this length of time. Apart from stone formation, long term duodenobiliary reflux may have other adverse effects. Kurumado *et al* reported dysplastic change in rat mucosa after formation of biliary enteric fistulae.³ Biliary malignancy is seen in anomalous pancreatico-biliary junctions, postulated to be caused by unusual reflux.⁴ The application of these reports to the effect of sphincterotomy needs to be cautious but they act as a warning that sphincterotomy might not be entirely benign in the long term.

Laparoscopic bile duct exploration offers the possibility of safe choledocholithotomy without sphincter destruction and it merits further study.

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Reply

EDITOR,—This study was conceived because we had heard clinicians at several national and international meetings stating that young patients with stones in the common bile duct are better treated by surgical exploration than ERCP sphincterotomy because the latter has

a 1% mortality. These clinicians were advocating open exploration of the common bile duct and to our knowledge none of them were performing laparoscopic bile duct exploration. Their statements were based on the global mortality from ERCP, irrespective of age and we were unable to find any scientific evidence relating the risks of ERCP sphincterotomy with age.

Our study is a prospective, multicentre audit of 1000 endoscopic sphincterotomies. No patient underwent ERCP without sphincterotomy and there was no comparison with any other technique such as laparoscopic common bile duct exploration. Mr Thompson's comments about a comparison with laparoscopic bile duct exploration and about "the remaining two-thirds of the patients undergoing ERCP without sphincterotomy" cannot therefore be directly answered by our report. We would like to emphasise that we use a selective policy for performing ERCP in patients undergoing laparoscopic cholecystectomy.^{1,2} This policy has become more selective since we began using intravenous infusion cholangiography in patients with possible bile duct stones, a technique we have shown to be as effective as ERCP but with fewer complications and less cost.³

We accept that "data for the events of 20–30 years after sphincterotomy are not available." Such statements are true for the long term consequences of all recent innovations, including laparoscopic bile duct exploration. Concerns about the prolonged effect of duodenobiliary reflux in animals have not been substantiated by the few reports looking at the long term effects of ERCP sphincterotomy in humans. In a study of 100 patients undergoing ERCP sphincterotomy followed for a median of 15 years, late complications, such as recurrent ascending cholangitis or malignant degeneration, were not observed.⁴ Recurrent bile duct stones, however, did develop in 24% of patients. The authors concluded that stone recurrence remains the most important long term problem after ERCP sphincterotomy, but that these stones can in general be managed by further ERCP.

Like Mr Thompson, we believe that laparoscopic bile duct exploration merits further study. In the introduction we state that "laparoscopic bile duct exploration is a well established technique but the time and skill required are likely to prevent it becoming universally available to patients." The experience of most surgeons with this technique is limited as supported by the relatively low numbers of patients reported in most series.⁵ The dilemma in many busy NHS hospitals is that unexpected bile duct exploration, either laparoscopic or open, is time consuming and interferes with the running of an already tight operating schedule. We therefore stand by our statement that currently "many clinicians therefore use preoperative ERCP and sphincterotomy." We are, however, enthusiastic supporters of minimally invasive therapy, particularly laparoscopic surgery, and would be interested in being involved in a comparative study of the various treatment options available.

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History of dyspepsia in patients with gastric cancer

EDITOR,—We read with interest the study by Suvakovic *et al* (*Gut* 1997;41:308–13) reporting that 63% of the patients with early gastric cancer had a previous history of upper gastrointestinal symptoms. These authors concluded that guidelines for the appropriateness of gastroscopy in patients with dyspepsia need to reflect the importance of not starting treatment prior to gastroscopy. General practitioners need to be made more aware of the potential for antisecretory drugs to mask early gastric cancer, which will then have a major detrimental impact on patient management. We have also studied whether patients with gastric cancer had serious and persistent dyspeptic symptoms necessitating consultation with their general practitioner (Laheij *et al*, unpublished observations). The results of our study, however, differ from Suvakovic *et al*'s.

We identified 46 patients with diagnostically verified early and late stage gastric cancer, using the Continuous Morbidity Register. This database is used to study the epidemiological aspects of diseases in primary care. The primary care population of approximately 12 000 patients has been followed since 1971. The recorded data have passed stringent quality controls and are consistent over the years of registration.¹ Controls were selected and matched for sex, social class, practice, observation period, and age.

The mean observation period between the date of registration and the first diagnosis of gastric malignancy was 12 years. In this period, 18 (39%) patients had dyspeptic symptoms necessitating consultation with the general practitioner compared with 20 of the controls (odds ratio 0.8, 95% confidence interval 0.3 to 2.0). Patients with gastric cancer had no more visits to their general practitioner for gastrointestinal symptoms than controls. Therefore, consultation rates for dyspeptic symptoms cannot be considered a warning for gastric cancer.

Every patient with gastric cancer develops gastrointestinal symptoms and there will always be a delay in diagnosis.² Martin *et al*