

## EDITORIAL

# Laparoscopic cholecystectomy

The introduction of laparoscopic cholecystectomy 3 years ago probably represents one of the greatest changes in general surgical technique this century. As several articles in this issue of the *Annals* show, the technique involves much less damage to tissue, far less blood loss, much reduced length of stay in hospital and a dramatically quicker return to work. We are moving inexorably to the surgical philosophy of 'running repairs'.

Minimally invasive surgery has been made possible by advances in imaging techniques, much improved optical systems and a great variety of long, thin instruments 3–9 mm in diameter. Initially, many of the latter were rather crude and simple and had not been designed to deal with different kinds of gallbladders. For instance, the instrument used for grasping the fundus of the gallbladder was only suitable for a normal, thin-walled bladder and not capable of grasping any with thick, diseased walls, but these deficiencies are now being put right.

Undoubtedly, the present two-dimensional optic system will be replaced by a three-dimensional one which will make it easier for the surgeons, especially those who find distant visuospatial skills hard to acquire. It may well be that some surgeons will not be able to cope and would be better advised to hand over this work to those who have taken naturally to these new techniques.

As gallstones are being detected more regularly and frequently than ever before, there is always the risk of attributing to them an increasing number of cases of obscure abdominal pain. This, coupled with the minimal morbidity attendant upon laparoscopic cholecystectomy, may result in many more cholecystectomies being done in the mistaken belief that symptoms will be relieved. As it is not always possible to detect pathological conditions at laparoscopy, it is imperative to be certain of the real diagnosis beforehand. Laparoscopic cholecystectomy is no more likely than open cholecystectomy to relieve abdominal pain other than that of classical biliary colic or acute cholecystitis.

The dissection in the angle of Calot is done either by blunt dissection or the French diathermy hook; the latter technique is preferable as it is associated with less bleeding. It is a slower and more meticulous technique but, as bleeding can be difficult to control, it is well worth it. Each piece of tissue, no more than 1 or 2 mm in diameter, is picked up on the end of the diathermy hook, scrutinised and divided by coagulation diathermy until the only remaining structures traversing the space between the gallbladder and the common bile duct region are clearly identifiable as the cystic duct and artery. If that scene cannot be produced, it is dangerous to continue and mandatory to convert to open cholecystectomy. It is, of course, essential that those undertaking this kind of surgery should be adequately trained and

should have experts on hand in the early days of their practice.

It is inappropriate to add the term laser to laparoscopic cholecystectomy as the gallbladder can be removed just as well by the use of diathermy and a good deal more cheaply. The laser can be useful in removing the very thick-walled gallbladders which are densely adherent to the liver.

There is some reluctance to adapt to new surgical procedures. Powerful opiate drugs are still being given unnecessarily. The postoperative period can be made more comfortable by giving a diclofenac suppository with premedication, long-acting local anaesthetic in the wounds, systemic anti-emetics and mild oral analgesia as required. It is also proving difficult to persuade hospital staff that most of these patients can come in the day of operation and leave the following day, and even more difficult to persuade the patient and those working in the community that they can return to work within 1 week. One patient played in an important football match 5 days after laparoscopic cholecystectomy but, 2 days later, was given 6 weeks off work because that was the usual time following open cholecystectomy!

Money should be no object to buying the necessary equipment which costs approximately £30 000. If 200 laparoscopic cholecystectomies are carried out in a district health authority annually, the savings made by reduced morbidity and length of stay would provide savings by £30 000 within 3 months, provided that the inevitable and appropriate reduction in the number of beds occurs.

Access to the abdomen for laparoscopic cholecystectomy has been almost invariably by the blind insertion of a Veress needle at the umbilicus, inflating the peritoneal cavity with several litres of carbon dioxide and then plunging a trocar through the same site. This procedure is preceded by catheterisation to avoid injury to the bladder. Published series have recorded an incidence of 0.3% injury to the bowel, but unpublished series may be hiding a higher incidence. Entry to the abdomen can safely be achieved under direct vision without the need of bladder catheterisation, Veress needles and disposable trocars, thereby effecting significant savings.

Laparoscopic cholecystectomy has been an exciting and important development, but of more importance to the patient is to find out how to prevent the formation of gallstones in the first place. To date, we think that this object may be helped by having a high roughage, low-fat diet, and keeping one's weight within a normal range, but we urgently need to know for certain.

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