Technical Section

TECHNICAL NOTES & TIPS

Technical Notes

Laparoscopic access: a different approach

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BACKGROUND

A technique of access for laparoscopic cholecystectomy is described in which the first port, to be used for insufflation, is created in the epigastrium. Many of the complications associated with operative laparoscopy arise when creating the pneumoperitoneum (e.g. subcutaneous emphysema and gas embolism) or from injury to internal structures during abdominal entry.^{1,2} Traditionally, in open trocar placement, a peritoneal cut-down is made below the

umbilicus. The trocar is then inserted under direct visualisation and the abdomen insufflated. Such injuries are especially likely to occur in patients who have had previous abdominal surgery, when adhesions may be problematic.

TECHNIQUE

A 1-cm incision is made in the epigastric area, just to the right of the midline. A disposable trocar is inserted and the depth of insertion is checked with the laparoscope prior to insufflation. During insertion, the trocar is aimed towards the liver. The patient is kept slightly head-up and all have a nasogastric tube inserted to ensure that the stomach is deflated.

DISCUSSION

We have used this technique in over 500 cases over the past 4 years. One complication arose directly due to the method of insertion, namely damage to a moderate-sized vessel. This required conversion to open surgery. We believe that this technique lessens the risk of injury to bladder, bowel or major vessels. It is particularly useful for those patients with previous abdominal incisions, for whom this technique was initially used.

References

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Figure 1 Trocar placement

Antegrade porridge enema to assess anorectal function after severe perineal sepsis

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BACKGROUND

The management of severe perineal sepsis involves the drainage of abscesses, debridement of necrotic or devitalised tissue and,

in many instances, the formation of a defunctioning loop colostomy to facilitate wound healing. There is often significant tissue loss and this, combined with the scarring/contraction associated with wound healing, can disrupt the integrity of the distal rectum and anal sphincter complex. This may have a significant and unpredictable impact on continence. Examination under anaesthesia, defaecating proctograms and anorectal physiology have traditionally been used to assess such patients. However, some of these are unhelpful or ambiguous and it is difficult to advise patients confidently whether their long-term bowel function will be satisfactory after reversal of colostomy. In these instances, we advocate the use of an antegrade porridge enema.

TECHNIQUE

The patient is admitted and 200 ml of porridge (Quaker's Oats™) is inserted into the distal limb of their loop colostomy. This should be of similar consistency to the output from the proximal limb of the stoma and will thus form a comparable stool to that which the patient may expect if the stoma was reversed. A record is kept of the stool frequency/urgency, consistency and any incontinence. It can be repeated on sequential days so that both the patient and physician can get a reasonable idea of bowel function.

DISCUSSION

The main advantage of this technique is that the colon delivers a 'stool' to the distal rectum/anus, which, in a pragmatic sense, is much closer to reproducing the likely function following reversal of a stoma than a retrograde contrast study. Furthermore, unlike either anorectal physiology or defaecating proctograms, patients have a clear understanding of this technique and can easily make a sensible decision regarding stoma reversal based on their experiences with it. We have used antegrade colonic porridge enemas in a number of such patients and found them to be a simple, safe, cheap and reasonably effective way to evaluate future bowel function prior to potential stoma reversal following severe perineal sepsis.

Use of a 'mirror plate' in minimally invasive plate osteosynthesis

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INTRODUCTION

Minimally invasive plate osteosynthesis (MIPO) has the advantages of reducing surgical trauma to the soft tissue envelope

Figure 1 Screw holes of the superficial plate are marked, mirroring the screw holes inserted plate

with less disturbance of the fracture site haematoma and a reduced wound length.¹⁻⁴ Potential disadvantages include entrapment of neurovascular structures beneath the plate, mal-reduction and inaccurate plate position. We present a technique which significantly reduces X-ray exposure when performing MIPO. The example used is that of the distal tibia locking compression plate (LCP; Synthes, Stratec Medical, Oberdorf, Switzerland); however, the principle can be applied to any minimally invasive plating system for which there are no specific jigs.

TECHNIQUE

The fracture is reduced, the plate is introduced through a small incision and its position confirmed using fluoroscopy. Temporary k-wires are inserted through the designated holes in each end of the plate. Usually, fluoroscopy is required to locate each screw hole in the plate prior to making incisions for screw insertion. Instead of this, a duplicate, 'mirror', plate is applied over the previously inserted k-wires and pressed down onto skin. Using a sterile marker pen, the holes of the overlying plate are drawn onto the underlying skin. The superficial plate essentially mirrors the inserted plate and acts as a template for screw positions. Incisions are centred on these skin marks and the screws are inserted in the usual manner into either the locking or compression holes.

DISCUSSION

We have found this to be a highly useful technique which not only aids in screw hole location but also significantly reduces the operation time and the use of intra-operative fluoroscopy.

References

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