Technical Section

TECHNICAL NOTES & TIPS

TECHNICAL NOTES

Recommended method of attachment of nasogastric tubes

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Figure 1 Ulceration of right nostril shown from below. The nasogastric tube has been re-secured in the recommended way.

BACKGROUND

Nasogastric tubes form an integral part of surgical management and have a variety of therapeutic uses (Table 1). They are increasing being left *in situ* for protracted periods in the intensive care setting when used for enteral feeding in critically ill patients.^{1,2} Nasogastric tubes are such a common feature in surgical patients that the morbidity associated with their use is

frequently underestimated (Table 2).^{3,4} The following technique of securing a nasogastric tube is recommended to avoid soft palate ulceration and pressure necrosis of the nostril (Fig. 1).

TECHNIQUE

A 10-cm strip of Elastoplast or Mefix tape is taped longitudinally to the nose as shown, and the tape is pinched distal to this to form a tape-to-tape 'mesentery' or hinge (Fig. 2). The free end of the tape is then firmly attached to the nasogastric tube. A further 5-cm strip of tape is then placed transversely across the bridge of the nose to ensure firm anchorage of the nasogastric tube. The 'hinge' thus formed allows the nasogastric tube to move on swallowing, avoiding pressure necrosis. We advise that the tape is

Table 1 Therapeutic uses of nasogastric tubes

- Aspiration of gastric contents
- Decompression of the small intestine (the 'drip and suck' regimen)
- Protection of proximal gastrointestinal anastomoses
- Enteral feeding
- Administration of drugs

Table 2 Morbidity associated with nasogastric tubes

- Oesophagitis
- Sinusitis
- Chest infections
- Soft palate and nasal ulceration
- Nasogastric tube syndrome (acute upper airway obstruction resulting from post cricoid chondritis)

Figure 2 Recommended method of attachment with tape-to-tape 'hinge'.

replaced every 2–3 days, as the sebum produced by the patient's nose reduces adhesion.

DISCUSSION

Ulceration of the nares is associated with a nasogastric tube being present for a protracted period, specifically one that has been taped too firmly, failing to allow it to migrate with deglutition. This results in pressure necrosis of the edge of the nostril as shown in Figure 1, and an unsightly notch shaped defect with permanently impaired cosmesis. The same mechanism leads to painful ulceration of the soft palate, with pain on swallowing, and a consequent risk of impaired nutrition. This can easily be avoided by allowing the nasogastric tube to move on swallowing, and this technique combines secure attachment of a nasogastric tube with avoidance of nasal and soft palate ulceration.

References

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Laparoscopic gastrostomy insertion, a safe and simple technique

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BACKGROUND

The insertion of a percutaneous endoscopic gastrostomy (PEG) tube can be complicated by the presence of malignancy or neurological disorders of the upper gastrointestinal tract. In these cases, a feeding gastrostomy is traditionally inserted by laparotomy carrying significant morbidity from wound infections and intraperitoneal leaks. Laparoscopic insertion using extracorporeal fixation minimises these risks and is simple to perform.

TECHNIQUE

The procedure can be performed under local or general anaesthesia. A 10-mm port is inserted below the umbilicus under direct vision.

Figure 1 The anterior gastric wall is grasped and brought through the port site.

Pneumoperitoneum is created with a CO₂ pressure between 5–10 mmHg. The table is tilted 20° in the head-up position and a 10-mm port introduced under direct vision over the position of the anterior gastric wall. The gastric wall is grasped with a toothed grasper and brought through the port site whilst deflating the abdomen (Fig. 1). Once exteriorised, the gastric wall is secured with two babcocks. Two 2-0 vicryl purse strings are inserted and a gastrostomy formed in the centre using a number 11 blade. The orifice is widened using an artery clip and a feeding tube inserted. The balloon or flange of the feeding tube should then be positioned behind the inner vicryl purse string. The stomach wall is then secured to the anterior abdominal wall with the remaining suture. Pneumoperitoneum is recreated to check for bleeding and to confirm the correct positioning of the tube.

DISCUSSION

This technique can be used by surgeons with limited laparoscopic experience, with minimal risk to the patient.

A simple technique for templating of mesh for acetabular reconstruction

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BACKGROUND

Revision hip arthroplasty often requires the reconstruction of large acetabular defects. One technique by which this can be