two groups. However, the complication rates in this study were low in both groups.

Mannell et al. [5] performed a 40-patient RCT looking at gastric emptying, but again, due to the low incidence of symptoms, no significant differences were seen.

Chattopadhyay et al. [12] performed a small RCT to look at gastric emptying in 24 patients. Emptying was significantly delayed by more than 10 times in both groups post-operatively compared to preoperatively, but the difference was significantly better in the pyloroplasty group. There were no other differences in either group.

Kobayashi et al. [8] performed a 67-patient randomised trial looking at gastric function one and six months post-esophagectomy. The food ejection time was reduced in the pyloroplasty group but most other markers including nutritional evaluation, lymphocyte count, rapid turnover protein and body weight fluctuation, were not significantly different.

Cheung et al. [13] performed a 72 patient randomised study looking at gastric emptying and late symptoms. They showed significantly quicker gastric emptying at six months, although symptoms did not correlate well with this improvement in transit time. They deemed that two patients in the control group could have benefited from pyloroplasty as the remainder were completely symptom free on follow up.

7. Clinical bottom line

Pyloroplasty seems to reduce the incidence of gastric outlet obstruction and speed up gastric emptying. In addition, the incidence of complications from this procedure seems low. However, other significant improvements to outcomes such as mortality, nutrition, Anastomotic leakage, gastric symptoms and aspiration, are yet to be established.

References


ICVTS on-line discussion A

Title: Pyloroplasty or no pyloroplasty?
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eComment: This question [1] has been asked to my recollection since the 1960s in many meetings, gatherings of specialists groups and societies. However my first personal encounter with comprehensive discussion about it was in one of ‘the Coventry conferences’ organised by Abbey Smith [2] a Consultant Thoracic Surgeon in Warwickshire (UK). Amongst the discussants were Phillip Allison, Norman Barrett, Ronald Belsey, Spencer Payne and Jack Leigh-Collis, as well as R. Giulii (presenting the work of Lortat-Jacob). As a young oesophageal surgeon, though with experience of some 200 oesophagectomies for carcinoma, I listened to the discussion and in particular the remarks made by Professor Collins regarding his own experience of over 400 oesophagectomies for cancer. Lecturing first and discussing at the end of the session with others as participants, he stated:

‘First, with every one of these operations, the mediastinum is reconstructed so that the stomach cannot distend within the chest by the negative intra-pleural pressure. The second thing is that in no case is pyloroplasty done. This, I think, may be important as it does mean that retrograde duodenal reflux into the stomach is avoided. The third point is that every patient after operation is required to sleep against a bed wedge so that he sleeps propped up. The fourth, is that for at least six months after operation, the patient is asked to have extra meals so that he has six small meals a day.’ [2]

A few years later I met Professor Collis at a meeting and he enquired about my own views and experience on pyloroplasty. My answer was that in the majority of cases I did carry out pyloroplasty particularly if the stomach was used as a substitute, and in part is left in the chest. He reiterated his original views with the proviso that ‘if the pylorus was scarred or diseased he would employ the procedure.’ I have applied it in my practice and had no cause to regret it.

Regarding the article of Khan et al. [1] and the scenario in which one is asked by one’s assistant a question regarding the relevance of pyloroplasty. Unfortunately, there is no straight answer to the question. This evidence-based article has not given an answer to the question posed. It does not consider taking into account important issues such as:

• The location of the lesion and the type of oesophagectomy
• Substitute used for reconstruction
• State of the pylorus whether scarred or diseased

It gives pause for thought whether poor evidence equates to good experience.

References