whose center is less than 2 cm from the visceral pleura [1]. If such a tumor is more than 1 cm in diameter, the tumor can be palpated through the wound of the target trocar. For smaller tumors, even when located less than 2 cm from the pleura, we performed CT-guided marking preoperatively.

Uniportal VATS is superior in some respects, but has limited versatility, especially considering that special equipment is necessary. Our TTP is intended to assist thoracic surgeons who are beginning their thoracoscopic experience with a basic operative set-up for VATS. With the TTP, the operator is guided by easily obtained images during the course of surgery. We believe that positional fixation of the trocar in relation to the lesion is not important, because of individual differences in habitus and in shape of the chest. Therefore, the TTP method provides images to adjust trocar positioning and to carry out the operation smoothly.

References

- [1] Sasaki M, Hirai S, Kawabe M, Uesaka T, Morioka K, Ihaya A, Tanaka K. Triangle target principle for the placement of trocars during videoassisted thoracic surgery. Eur J Cardiothorac Surg 2005;27:307-12.
- [2] Rocco G, Martin-Ucar A, Passera E. Uniportal VATS wedge pulmonary resections. Ann Thorac Surg 2004;77:726-8.

doi:10.1016/j.ejcts.2005.04.010

Letter to the Editor Gastric tip necrosis

Shashi Kant*

Waikato Group of Hospitals, Waikato Hospitals, Hamilton, 2001 New Zealand

Received 29 March 2005; received in revised form 30 March 2005; accepted 28

April 2005; Available online 13 June 2005

Keywords: Oesophageal Cancer

I read with interest the article by Dr Page Richard and colleagues [1] on surgical treatment of anastomotic leaks after oesophagectomy. Dr Page has given a full analytical report on various variables effecting anastomotic healing and suggested a clinical algorithm to follow.

In my clinical experiences for assessing various variable that effect healing of esophagogastric anastomosis, I found high Intragastric pressure and wall tension in gastric wall were independent risk factors leading to poor gastric muscosal perfusion and there by effecting anastomosis healing. I agree with Dr Page that anastomotic leak commonly occurs after first week of surgery and gastric tip or fundal necrosis is the commonest cause for anastomotic leak.

I aim to keep Intra-Gastric pressure low by continuous Naso-Gastric suction early and on passive drainage later in postoperative period [2]. Dr Page and colleagues would remove Naso-Gastric tube on day 2 of surgery and patient is

orally fed on day 4 onwards. Moreover, I noted that gastric outlet drainage procedures were not routinely performed in this series. I think gastric outlet drainage procedure is a must not as a part of the procedure, but as a mean to achieve low Intra-Gastric pressure during early postoperative period. I think low Intra-Gastric pressure is as important as keeping low end diastolic pressure following Acute Myocardial Infarction. I would always do gastric outlet procedure even if it were a simple digital stretch, which hardly takes just a few minutes of surgical time and very little morbidity. By keeping Naso-Gastric tube on suction and then on free drainage combined with routinely done gastric outlet procedure, we aim to keep Intra-Gastric pressure low in early post operative period. Patient can be fed through Jejunostomy which is routinely performed as a part of procedure and taken out when anastomosis is secured commonly on 10th post operative day

I agree with Dr Page and colleagues that an early surgical intervention through a clean surgical field is a key for managing post-surgical anastomotic leak. I am sure that above-mentioned principle of maintaining low Intra-Gastric pressure during early post surgical period would help us to achieve satisfactory anastomotic healing.

I must congratulate Dr Page and colleagues the excellent work and adding some valuable guideline on managing post surgical anastomotic leak.

References

- [1] Page RD, Shackcloth MJ, Russell GN, Pennefather SH. Surgical treatment of anastomotic leaks after oesophagectomy. Eur J Cardiothorac Surg 2005;27:337-43.
- [2] Schröder W, Stippel D, Lacher M, Gutschow CA, Beckurts KT. Doss continuous mucosal partial carbon dioxide pressure measurement predict leakage of intrathoracic esophagogastrostomy? Ann Thorac Surg 2002;74: 1917-22.

doi:10.1016/j.ejcts.2005.04.027

Reply to the Letter to the Editor

Reply to Kant

Surgical treatment of anastomotic leaks after esophagectomy.

Richard D. Page^{a,*}, Michael J. Shackcloth^a, Glenn N. Russell^b, Stephen H. Pennefather^b ^aDepartment of Thoracic Surgery, The Cardiothoracic Centre, Thomas Drive, Liverpool L14 3PE, UK ^bDepartment of Anaesthesia, The Cardiothoracic Centre, Liverpool, UK

Received 27 April 2005; accepted 28 April 2005; Available online 9 June 2005

Keywords: Oesophagectomy; Anastomotic leak; Oesophageal surgery

We appreciate Dr Kant's kind comments on our report. Over the years, we have become more conservative over

^{*}Corresponding author. Tel.: +81 776 61 3111x2350; fax: 81 776 61 8114. E-mail address: masato@fmsrsa.fukui-med.ac.jp (M. Sasaki)

^{*}Tel.: +64 21 0771501; fax: +64 7 8398631. E-mail address: shkant101@yahoo.co.nz

removing the NG tube from our patients, not just because of our concern that gastric distension may cause unwanted tension on internal suture lines, but also because of aspiration of gastric contents into the lungs. Apart from the amount of fluid aspirated from the NG tube we enquire as to the amount of air the tube produces on aspirating when taking a decision to have the tube removed. Although it is reassuring for a surgeon to have a tube in place it is always a source of discomfort for patients and may lead to impaired ability to cough.

The issue of gastric drainage and leaks after oesophagectomy has been discussed in detail by Junemann-Ramirez et al. [1]. Although, the authors felt that in their practice gastric drainage may have led to less leaks, this was not supported by a meta-analysis by Urschel [2].

We have previously studied the impact on routine enteral feeding after oesophagectomy and not found it useful [3]. Indeed, we are more concerned about the unwanted effects of jejunostomy which are avoided if a jejunostomy is not used. Our intention with early reintroduction of oral feeding is based on our overall philosophy of managing patients after oesophagectomy, which is to allow patients to return to a normal life as soon as possible after surgery.

References

- [1] Junemann-Ramirez M, Awan MY, Rahamim JS. Anastomitic leakage postesophagogastrectomy for esophageal carcinoma: retrospective analysis of predictive factors, management and influence on longterm survival in a high volume centre. Eur J Cardiothorac Surg 2005;27:3-7.
- [2] Urschel JD, Blewitt CJ, Young JE, Miller JD, Bennett WF. Pyloric drainage (pyloroplasty) or no drainage in gastric reconstruction after esophagectomy: a meta-analysis of randomised controlled trials. Dig Surg 2002;19: 160-4.
- [3] Page RD, Oo AY, Russell GN, Pennefather SH. Intravenous hydration versus naso-jejunal enteral feeding after esophagectomy: a randomised study. Eur J Cardiothorac Surg 2002;22:666-72.

doi:10.1016/j.ejcts.2005.04.028

Letter to the Editor

Resection for congenital cystic adenomatoid malformation-surgery delayed is surgery denied?

> Ganesh Shanmugam* Department of Cardiac Surgery, Royal Hospital for Sick Children, Dalnair Street, Glasgow G3 8SJ, UK

Received 30 March 2005; accepted 28 April 2005; Available online 8 June 2005

Keywords: Congenital Cystic adenomatoid malformation; Lobectomy

The article on congenital cystic adenomatoid malformation (CCAM) [1], fails to provide new insights into surgical strategy or surgical timing in CCAM.

(a) The authors contend that macrocystic lesions (based on the Adzick classification), enlarge and require surgical excision, while microcystic lesions resolve and can be simply followed-up. This is an erroneous statement. In actual fact, microcystic lesions have a poor prognosis, and are associated with mass effects requiring prenatal intervention!

(b) The authors state that an exact Stocker's type can be assigned at 18-20 weeks of gestation. An exact Stocker's classification can only be confirmed on the histopathological examination of a resected specimen! Perhaps the authors would care to comment, on how this determination is made antenatally?

Currently, there is no controversy as to the surgical indication for CCAM. The only question is of timing, which the authors attempt to address but fail to answer.

Appropriate surgical timing is determined by the prenatal behaviour of CCAM, the development of mass effects, and postnatal presentation. Given the variable natural history, it is the clinical presentation and not the mere antenatal diagnosis that dictates surgical timing.

What was the incidence of air leaks in the lobectomy or segmentectomy groups? This is important because seven patients had segmental resections.

Immaterial of the mode of presentation, immediate postoperative outcomes are good following CCAM surgery, at all age in most series [2]. This is established fact. The risk factors for poor outcome include bilateral and multilobar CCAM, and the presence of pulmonary hypoplasia, which the authors have not alluded to.

The expectation of respiratory distress during subsequent follow-up was one of the authors' indications for emergency surgery. Does this constitute a true indication for an emergency procedure? The inclusion of this category under 'emergency' procedures confounds the statistical analysis.

Barring a mention of normal physical activity in survivors, there is no mention of symptoms, lung function tests, or details pertaining to late outcomes. Yet the authors conclude that long-term outcomes were good.

The management strategy for prenatally diagnosed lesions is not based on hard science.

Many patients will have antenatally diagnosed CCAM in future. Why would all patients require Intensive care, especially if they are asymptomatic and clinically stable? Transfer to a neonatal unit is dictated by clinical symptoms in conjunction with the antenatal findings—not solely on the basis of an antenatal diagnosis.

The recommendation for emergency surgery in respiratory distress is obvious and not new.

I wonder how many patients with large lesions and mediastinal shift would be asymptomatic, which is the author's indication for an urgent operation?

How did the authors arrive at the 2-3 months time frame to operate on these patients? While they established that neonatal surgery is safe, there is no basis to operating on these children at the age of 2-3 months, from an analysis of their data, which does not lend credence to this conclusion.

Unfortunately, the authors have not answered the question that they set out to answer.

^{*}Corresponding author. Tel.: +441512932456; fax: +441512208573. E-mail address: richard.page@ctc.nhs.uk (R.D. Page)