

Early Experience of Video-Assisted Thoracoscopic surgery

Sir,

May we respond to Dr Lee and associates¹ call for the support of video-assisted thoracoscopic surgery (VATS) as a safe and effective procedure in the management of pulmonary, mediastinal, pericardial and pleural disease and the treatment of persistent and recurrent spontaneous pneumothorax?

Surgeons have been overwhelmed with video-assisted and minimally invasive surgery. Patients demand it and if that is not enough, surgeons have been encouraged to try out various new tools by the equipment companies. After the initial wave of enthusiasm, surgeons began to question whether there are any real advantages of VATS over open procedures. Initial reports were merely a retrospective list of procedures conducted over a period of time and there were no comparisons between a VATS procedure and a standard open procedure. In the recent literature, Kirby and associates² concluded that VATS lobectomy offered no significant advantage over a standard open lobectomy in 55 patients in terms of operative time, intraoperative blood loss, duration of chest tube drainage, or length of hospital stay. In another study Molin and associates³ showed that VATS increased procedure-related cost in patients undergoing lung biopsy for interstitial lung disease. For the indeterminate solitary nodule, VATS excision was shown to be safe and effective but has not been shown to have lower procedure-related costs than a standard thoracotomy⁴. The Thorax Group in France⁵ prospectively studied resection of pulmonary nodules using VATS in 338 patients and concluded that it is a safe method and remains mainly a diagnostic procedure for malignant tumours. It should not be used for lesions more than 3 cm in diameter from the visceral pleura. Results of randomised prospective studies comparing VATS and open procedures in the treatment of spontaneous pneumothoraces and malignant pleural effusions are yet to be published.

Dr Lee and colleagues mentioned the advantages of VATS over thoracotomy. What about disadvantages?

Implantation of cancer in the thoracoscopy port incision have been reported. Post-operative pain and neuralgia are not related to the size of the port incision, but to the degree of torquing the surgeon exerts on the port with the instruments, hence compressing on the intercostal nerves. Patients have dysaesthesia along the thoraco-abdominal dermatomic distribution of the intercostal nerve (usually involved at the camera port) rather than at the incision sites. Landreneau and associates⁶ recently concluded from their study that the prevalence of long-term chronic pain after an apparently less traumatic procedure to the chest wall is not significantly different from that after thoracotomy. Complications of VATS are also well documented⁷.

Do not get us wrong! VATS is certainly appealing but we should not lose sight of the end-point of our surgery. If diagnostic specimens can be obtained, and if endoscopic staplers can provide secure closure of the lung, we should all move to this approach in selected patients. Finally, we would like to congratulate the authors for their work in video-assisted thoracoscopic surgery.

P S Wong, FRCS*, L N Hooi, MRCP**,
*Consultant Cardiothoracic Surgeon, **Consultant
Respiratory Physician, Penang General Hospital

References

1. Lee YM, Lim YC, Liam CK, Majid A. Early experience of video-assisted thoracoscopic surgery. *Med J Malaysia* 1996;51 : 109-13.
2. Kirby TJ, Mack MJ, Landreneau RJ, Rice TW. Lobectomy – Video-assisted thoracoscopic surgery versus muscle-sparing thoracotomy. A randomised trial. *J Thorac Cardiovasc Surg* 1995;109 : 997-1002.
3. Molin LJ, Steinberg JB, Lanza LA. VATS increases costs in patients undergoing lung biopsy for interstitial lung disease. *Ann Thorac Surg* 1994;58 : 1595-8.
4. Allen MS, Deschamps C, Lee RE, Trastek VF, Daly RC, Pairolero PC. Video-assisted thoracoscopic stapled wedge excision for indeterminate pulmonary nodules. *J Thorac Cardiovasc Surg* 1993;106 : 1048-52.

LETTERS TO THE EDITOR

5. Bernard A, and The Thorax Group. Resection of pulmonary nodules using video-assisted thoracic surgery. *Ann Thorac Surg* 1996;61 : 202-5.
6. Landreneau RJ, Mack MJ, Hazelrigg SR, Naunheim K, Dowling RD, Ritter P, Magee MJ, Nunchuck S, Keenan RJ, Ferson PF. Prevalence of chronic pain after pulmonary resection by thoracotomy or video-assisted thoracic surgery. *J Thorac Cardiovasc Surg* 1994;107 : 1079-86.
7. Demmy TD, Curtis JJ, Boley TM, Walls JT, Nawarawong W, Schmaltz RA. Diagnostic and therapeutic thoracoscopy: Lessons from the learning curve. *Am J Surg* 1993;166 : 696-701.