segmental bronchi to be divided [3]. In emphysematous patients we have used a similar method by injecting air through the channel of a bronchofiberscope, after selective endoscopy of the segmental bronchus.

Once the intersegmental plane has been determined, the last issue is the choice of the division method. Some authors have used a combination of blunt dissection, electrocautery and application of fibrin sealant [3]. When air leaks were observed, some surgeons applied mattress sutures with pledgets [11]. These methods have the advantage of sparing parenchyma, but have a risk of postoperative air leak. Actually, most authors use staplers (Tables 4 and 5). Suturing is however not that easy. First, it may require using many cartridges, up to five in the series of Watanabe et al. [11]. Second, the limited opening of the endostaplers and the thickness of the parenchyma can lead to disruption of the staple line, an adverse event that occurred twice in our series. The consequences were not serious but led to troublesome blood loss and required suturing by hand.

Although a totally endoscopic approach to anatomic segmentectomies can seem challenging and difficult, the operation time was reasonable in this series and the morbidity rate was low. Experience and improvements of some instruments, such as endostaplers, will facilitate the procedure. Combining the advantages of an endoscopic approach and an anatomically limited resection could be highly beneficial for those patients who fulfill the criteria of a sublobar resection [13, 15].

References


eComment: Thoracotomic approach for pulmonary metastases

Authors: Giovanni Leuzzi, Department of Thoracic Surgery, Catholic University, Rome, Italy; Stefano Cafarotti, Maria Teresa Congedo, Stefano Margaritella

doi:10.1510/icvts.2010.257493A

We have read with great interest the article by Gossot et al. reporting the totally thoracoscopic approach for pulmonary anatomic segmentectomies [1]. Concerning the inclusion criteria in the planning treatment for single
pulmonary metastasis reported by the authors themselves in nine cases, we have a point for interactive discussion. Despite high resolution computed tomography scan and positron emission tomography-computed tomography remain the preferred imaging modalities for pulmonary metastases, the sensitivity of the technique is 100% for lesions larger than 1 cm, but it decreases according to the size of the metastases (< 5 mm). Indeed, as we have yet demonstrated, there is a real problem of missing small metastatic lesions in the video-assisted thoracic surgery approach [2]; moreover, the necessity of a second or third re-resection for recurrent metastases was reported [3]. In conclusion complete manual exploration by axillary-thoracotomy remains the procedure of choice for patients undergoing pulmonary metastasectomy, because of limitation in preoperative radiological assessment of lung lesions smaller than 5 mm.

References