

Correspondence

Fibreoptic bronchoscopy and double-lumen endobronchial tubes

To the Editor:

Alliaume *et al.*¹ in their study on the use of fiberoptic bronchoscopy (FOB) after blind placement of double-lumen endobronchial tubes (DLT) cite two other studies^{2,3} dealing with bronchoscopic confirmation of DLT position. Pooling the data from these three studies ($n = 56$), a failure rate of 61% for left-sided DLTs ($n = 41$) and 87% for right-sided DLTs ($n = 15$) after conventional blind placement and auscultation may be calculated.

Schottke-Hennings *et al.*⁴ recently published the results of a larger ($n = 110$) prospective study dealing with this problem. Using FOB and the same criteria for correct DLT placement, they found similar failure rates. 57% (left-sided DLTs, $n = 100$) and 80% (right-sided DLTs, $n = 10$) of conventionally placed DLTs did not fulfill the endoscopic criteria for correct position.

Turning the patient to the lateral position may result in inadvertent flexion or extension of the neck, causing malposition of the DLT⁵ (bronchial extubation or obstruction of the upper lobe bronchus). Alliaume *et al.*¹ repeated FOB in all patients in the lateral position but do not report their findings. Using FOB, Schottke-Hennings *et al.*⁴ could demonstrate tube dislocation secondary to lateral positioning in 27% and secondary to surgical manipulation in 25% of their patients ($n = 110$).

Furthermore in the same study, fibreoptic bronchoscopy proved to be of great use in the diagnosis and management of intraoperative obstruction of the tracheal or bronchial tube lumen. Blood or coagula in 49% and secretions in 46% of the patients were verified and removed endoscopically.

Despite some opinion to the contrary,⁶ these studies suggest that fibreoptic bronchoscopy may play an important role in reducing the incidence of complications associated with the use of PVC-DLTs in thoracic surgery.

Stefan Zbinden MD
Department of Anaesthesia
Limmattal Hospital
Zurich-Schlieren
CH-8952 Switzerland

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REPLY

Dr. Zbinden makes reference to an article of Schottke-Hennings et al.⁴ examining the correlation between auscultation and FOB in positioning DLTs but, unfortunately, this publication is not widely available in our country. Nevertheless, it is interesting to note that if all the available results¹⁻⁴ are pooled, the discrepancy between both techniques for placement of left-sided and right-sided DLTs reaches 58% and 84% respectively. This reinforces our impression that auscultation is an unreliable method of establishing the correct position for right- and left-sided DLTs. The problem of displacement of DLTs when turning patients to the lateral position is real.⁵ repositioning was necessary and was performed bronchoscopically in most patients. We would add that during the study and since FOB is now our standard practice no special one-lung ventilation technique (CPAP and/or PEEP) has been necessary to counter hypoxaemia. Consequently, we recommend FOB whenever DLTs are to be used because they contribute to reducing pre- and post-operative morbidity.

Dr. B. Alliaume
Department of Anaesthesia and Intensive Care
Onze-Lieve-Vrouw Ziekenhuis
Moorselbaan 164
9300 Aalst-Belgium