An Alternative to One-lung Ventilation in a Patient with a Tracheostomy

To the Editor—Andros and Lennon describe successful placement of a single-lumen endotracheal tube with a small channel containing a movable bronchial blocker (Univent tube, Vitalaid, Toronto, Ontario) through a preexisting tracheostomy stoma to facilitate intrathoracic surgery. The authors state that “one-lung ventilation via a tracheostomy has been reported only with the use of a double-lumen tube (DLT).”

We previously have reported placement of a bronchial blocker (Fogarty catheter) through a modified fiberoptic bronchoscope endotracheal tube adapter (Portex, Markham, Ontario), down the lumen of an endotracheal tube, and into the right mainstem bronchus. In a subsequent publication, the same principle was applied to a patient with a fresh tracheostomy, in whom left lung deflation was required for surgery on a traumatically ruptured aorta. Because the tracheostomy in our patient had been performed recently, and double-lumen tube placement was judged impossible, our technique offered the only feasible method of one-lung ventilation.

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References


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In Reply:—Oxorn correctly notes that, before our case report was published, he reported the use of a bronchial blocker to allow one-lung ventilation in a patient with a tracheostomy. A technique was employed in which a bronchial blocker was placed through the lumen of the tracheostomy tube via the suction port of a fiberoptic bronchoscope. In addition to the disadvantage of requiring a special bronchoscope adapter, this technique results in placement of the blocker within the lumen of the tracheostomy tube, which may add to the inherent instability of an isolated bronchial blocker. It is our opinion that the Univent tube (Fuji Systems, Tokyo, Japan) with a self-contained bronchial blocker is technically simpler to place for one-lung ventilation and is more stable after placement. An alternative technique such as that reported by Oxorn, however, also may permit one-lung ventilation in a patient with a tracheostomy and distorted airway anatomy.

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