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

To the Editor—Andros and Lennon¹ describe successful placement of a single-lumen endotracheal tube with a small channel containing a movable bronchial blocker (Univent tube, Vitaiid, 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 reported² 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,³ 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.¹ 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.² 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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