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# Airway Obstruction in a Prone Patient

*To the Editor:*—I have with interest read the Letter to the Editor by Ogden and Bradway[1] dealing with a unique way of restoring patency to an endotracheal tube that is kinked in a prone patient. I would like to make three points.

1. The small flexible suction catheter they inserted through the endotracheal tube stopped at 19 cm, the point at which the pilot balloon line inserts, *i.e.*, where the cuff is starting to inflate. Did the authors attempt to let the cuff down? This should be considered as the first option for a possible treatment of an airway obstruction. The cuff could have herniated into the lumen of the endotracheal tube.
2. I would think that the Berman intubating airway would be difficult to insert into the mouth of such a patient in most cases. The reasons being, as the author's mention, edema of tongue and lips. I also suggest that it is difficult, if not impossible, to open the mouth in these cases.
3. Another solution is to replace the angle connector at the end of the endotracheal tube with a Bronchoscopic Swivel Elbow Adaptor (PriMedicao, Largo, FL). Through the bronchoscopic port (at the top end of the connector), one can advance a gum elastic bougie or a semirigid Sheridan Jet Ventilation Catheter/endotracheal tube exchanger (Rusch. Inc. Duluth, GA) (Dacanay RG, Mecklenburg BW, Department of Anesthesiology, Naval Medical Center, San Diego, CA, written communication, May 2004) or a Cook's exchange catheter (Cook, Critical Care, Ellettsville, IN). With these three devices, one should be able to straighten the kink.[2] With the two latter devices, one can also ventilate by using the orifice in the middle of these catheters.

Sudden or gradual airway obstruction in a prone patient can end in disaster. To have a Bronchoscopic Swivel Elbow Adaptor available in these cases may prove invaluable.

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## References

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2. Brock-Utne JG: Clinical Anesthesia: Near Misses and Lessons Learned, 1st Edition. New York, Springer, 2008, pp, 117–118

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*In Reply:*—We thank Dr. Brock-Utne for his comments concerning our letter,[1] and we agree that there are several solutions to consider in this situation.

1. Although we have insufficient data concerning this, we have experienced many more kinked endotracheal tubes (ETTs) than ETTs occluded by the cuff of the ETT. We do not believe that letting the cuff down should be the first step when a kinked ETT is far more probable than an occluded one.[2] Though the pilot balloon line inserts at 18 cm on the ETT used in this case, the actual endotracheal cuff itself is far distal to this insertion. The notion that a pilot balloon line could develop an aneurysm just after the point of insertion, which could partially occlude an ETT, seems unlikely.
2. The Berman intubating airway is easily removed from around the ETT after intubation. The same features that make it easy to remove (the "breakaway" feature on one side and the "hinge" on the other side) also make it easy to insert. There is no need to fully open the mouth, as the teeth need only to be separated by the outside diameter of the airway. Soft tissue edema of the tongue and lips are frequently easy to overcome with the rigidity and form of the Berman airway.
3. When a better method is available, trying to pass a catheter of any reasonable inside diameter through an ETT with a significant kink is probably not the best use of important time to restoring patency. In addition, ventilating through a very small diameter tube can lead to quickly increasing carbon dioxide levels, which may be of concern in open cranium neurosurgical cases such as this one.

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