
Vagal nerve stimulators are approved for use in patients with refractory seizure disorders. Laryngospasm with a VNS is a known complication. Use of a supraglottic airway as a conduit for a fiberoptic scope allows for visualization of the vocal cords in situations where revisions are indicated. The concern arises from the fact that one is purposefully inducing laryngospasm without a protected airway, e.g. an endotracheal tube. It is vital that precautions be taken prior inducing laryngospasm in this manner. This includes that the ease of mask ventilation be established prior to intubation. Emergency airway equipment should be easily accessible along with good visualization of the cords in the case intubation is needed. Drugs, such as propofol or succinylcholine, to facilitate “breaking” laryngospasm should be immediately available. Communication between the surgery and anesthesia teams is vital in ensuring a safe outcome.

CASE DESCRIPTION
16 year old male with a history of Lennox Gestaut seizure disorder was scheduled for a vagal nerve stimulator (VNS) revision. The patient was going into laryngospasm with each stimulation of the VNS, therefore it required repositioning. Anesthetic induction and intubation was uneventful. After incision was made the surgery service voiced they would like for the anesthesia team to visualize the vocal cords while they reposition the lead, in order to find a location that would not induce laryngospasm. Because this was not vocalized prior to surgery, the ETT did not have a nerve monitor to detect vocal cord movement. Therefore the ETT was removed and a size 3 Proseal LMA was inserted. A fiberoptic scope was passed through the LMA and the cords were clearly seen. The VNS was turned on and the cords closed. When the VNS turned off the cords opened within seconds and the patient was easily ventilated. The lead was repositioned caudally in one centimeter increments with continued closure of the cords with each stimulation. Once the appropriate spot was found that did not induce laryngospasm the LMA was removed and patient was taken to PACU in stable condition.

DISCUSSION
Vagal nerve stimulators are approved for use in patients with refractory seizure disorders. Laryngospasm with a VNS is a known complication. Use of a supraglottic airway as a conduit for a fiberoptic scope allows for visualization of the vocal cords in situations where revisions are indicated. The concern arises from the fact that one is purposefully inducing laryngospasm without a protected airway, e.g. an endotracheal tube. It is vital that precautions be taken prior inducing laryngospasm in this manner. This includes that the ease of mask ventilation be established prior to intubation. Emergency airway equipment should be easily accessible along with good visualization of the cords in the case intubation is needed. Drugs, such as propofol or succinylcholine, to facilitate “breaking” laryngospasm should be immediately available. Communication between the surgery and anesthesia teams is vital in ensuring a safe outcome.

REFERENCES