Topical Thunder: An Awake Intubation Technique That Works!

Awake tracheal intubation (ATI) is an important airway skill for nurse anesthesiologists to acquire and retain as part of their airway management skill set. Difficult airway algorithms from the American Society of Anesthesiologists (ASA), Difficult Airway Society (DAS), Canadian Airway Focus Group (CAFG), and various other airway societies all recommend awake intubation when it is indicated. Indeed, there are anatomic, physiologic, pathophysiologic, and traumatic indications for the utilization of ATI. These societies advocate for "the regular training in ATI to attain competency and maintain skills in awake tracheal intubation."

Topical Thunder is an ATI technique that utilizes only topical anesthesia to anesthetize the airway. It involves a three-step process of anesthetizing the airway that includes the use of local anesthesia atomization of the oral and oropharyngeal cavities, direct application of viscous local anesthesia to the oropharyngeal and hypopharyngeal area, and local anesthesia atomization of the hypopharyngeal, laryngeal, and upper tracheal structures. For simplicity, the three-step process is described as a Spray-Paint-Spray method of local anesthesia application to airway mucosa specifically targeting multiple nerves that innervate the upper airway. Below is an example of the three-step Topical Thunder application of local anesthesia.

Topical Thunder Step 1 - Spray

- 1. Retract tongue.
- SPRAY: 3 5 mL 4% lidocaine into the oropharynx/hypopharynx with a MADgic atomizer.





Topical Thunder Step 2 - Paint

- 1. Retract tongue.
- PAINT: Use a "lidocaine lollipop" applied to posterior tongue (1 - 2 gm 5% lidocaine paste).
- Lidocaine paste melts down the posterior tongue.





Topical Thunder Step 3 - Spray

- 1. Load ETT on flexible scope.
- Use Scope to guide atomizer.
- SPRAY: 2 3 mL 4% lidocaine directly onto cords and surrounding structures.
- SPRAY: 1 2 mL 4% lidocaine directly into trachea.



