Awake Fiberoptic Intubation

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Indications for Awake Fiberoptic Intubation

- Known or anticipated difficult airway-mask or intubation
- Unable to move neck-c-spine injury, RA...
- Distorted anatomy

“Fiberoptic intubation of the spontaneously breathing patient is the GOLD STANDARD and technique of choice for the management of a difficult airway”

Nasal

- Direct path
- Need smaller tube
- Not best idea if patient remains intubated
- Potential for nose bleed especially in patient we are already concerned about bleeding issues

Awake Fiberoptic
NASAL or ORAL

Fiberoptic Awake Oral Intubation
Resus Review
ORAL with Berman, Ovassapian or Williams airway
Sedation

- Have to make sure maintaining airway
- DON'T over sedate

Medications

- 4% Lido/mecaine, Lidocaine cream, 2% Lidocaine
- Glycopyrrolate-given early at least 20 minutes before
- Reglan? Bicarbonate?
- Varsad
- Fentynal
- Precedex
- Ketamine
- Remifentanyl

Precedex

- Dexmedetomidine
- Alpha2-adrenergic agonist
- Sedation without respiratory depression
- 200ug/50cc bag
- 0.2-1.4ug/Kg/hr
- Can load 1ug/Kg over 10 min- I don’t

Ketamine

- NMDA receptor antagonist
- Dissociative
- Salivating
- Low dose to top sedation off-20-50 mg
- Antidepressant

Innervation of the Airway

- Nasal cavities
- Oral cavities
- Pharynx-nasopharyngeal, oropharynx & hypopharynx
- Larynx
- Trachea

Airway Reflexes

- Gag-glosso-pharyngeal and vagus branches
- Glottis Closure-superior and recurrent laryngeal nerves
- Cough-vagus
Oropharynx
- Viscous lidocaine
- Glossopharyngeal nerve block
- Nebulizer-3-5cc 4% Lidocaine
- 4% Lidocaine atomizer
- Lollipop-Lidocaine ointment
- Oral airway with Lidocaine ointment/cream

Glossopharyngeal nerve block
The glossopharyngeal nerve can be blocked by holding swabs soaked in local anesthetic at the point indicated by the white arrow. Or injecting local anesthetic at arrow.

Posterior pharynx
- Atomizer
- Nebulizer
- Superior Laryngeal Nerve-gag reflex, base of tongue to just above vocal cords

Below vocal cords
- Transtracheal-4% Lidocaine 4-5 cc
- Recurrent Laryngeal Nerve-also part of gag reflex
- Patient coughs help spread
- Or-Direct visualization and injection through FO
- Nebulizer
Ways to numb airway

- Atomizer
- Nebulizer
- Direct injection
- Lollipop-lidocaine ointment on end of tongue blade with gauze-pt sucks it while advancing as tolerated
- Injection of lidocaine through Fiberoptic as advancing

Concerns numbing airway

- Biggest concern is numbing up the airway above and below the vocal cords-TAKES AWAY PROTECTIVE AIRWAY REFLEXES!!!
- Is patient NPO, airway secretions, bloody airway…
- ASPIRATION!!!
Positioning

- NOT sniffing position
- Neutral position: chin lift and jaw thrust maneuvers move the soft tissues and lifts the epiglottis from the posterior pharyngeal wall improving the view through the fiberscope

Using Fiberoptic

- Keep bronchoscope taut between hands so the orientation of the tip is the same as the control lever
- Move right or left
- Move up or down

Flexion lever moves tip of the scope from 06:00 to 12:00 in one plane
Advancing ETT

- Lots of lubrication
- Consider smaller tube
- Parker tube
- Endotrol tube

Endotrol ETT

Has hook to maneuver end of tube

- If the fiberscope passes through the vocal cords, but the endotracheal tube does not pass, the tube may be getting caught on the arytenoid cartilages. Rotating the endotracheal tube ninety degrees counterclockwise directs the tip into the trachea.