Avoiding The Failed Airway

Kayla Enriquez, MD, MPH

Associate Clinical Professor

ZSFGH ED Airway Director

Difficult Airway Course Faculty

Financial Disclosures

- None

Objectives

1. Difficult airway identification

2. Indications/use for fiberoptic scope

3. Airway foreign body management

Main objective is to **help predict challenging airways** so that you are prepared and successful!!

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Ic

- **M**- mask facial hai
- **O**- obesit
- **A**- age (u loss of to
- **N**- no tee
- **S**- stiff/sr disease c sleep apr

- **S**- sub esity
- **M**- ma ass
- **A**- access/anatomy
- **R**- radiation (neck deformity/scarring)
- **T**- tumor

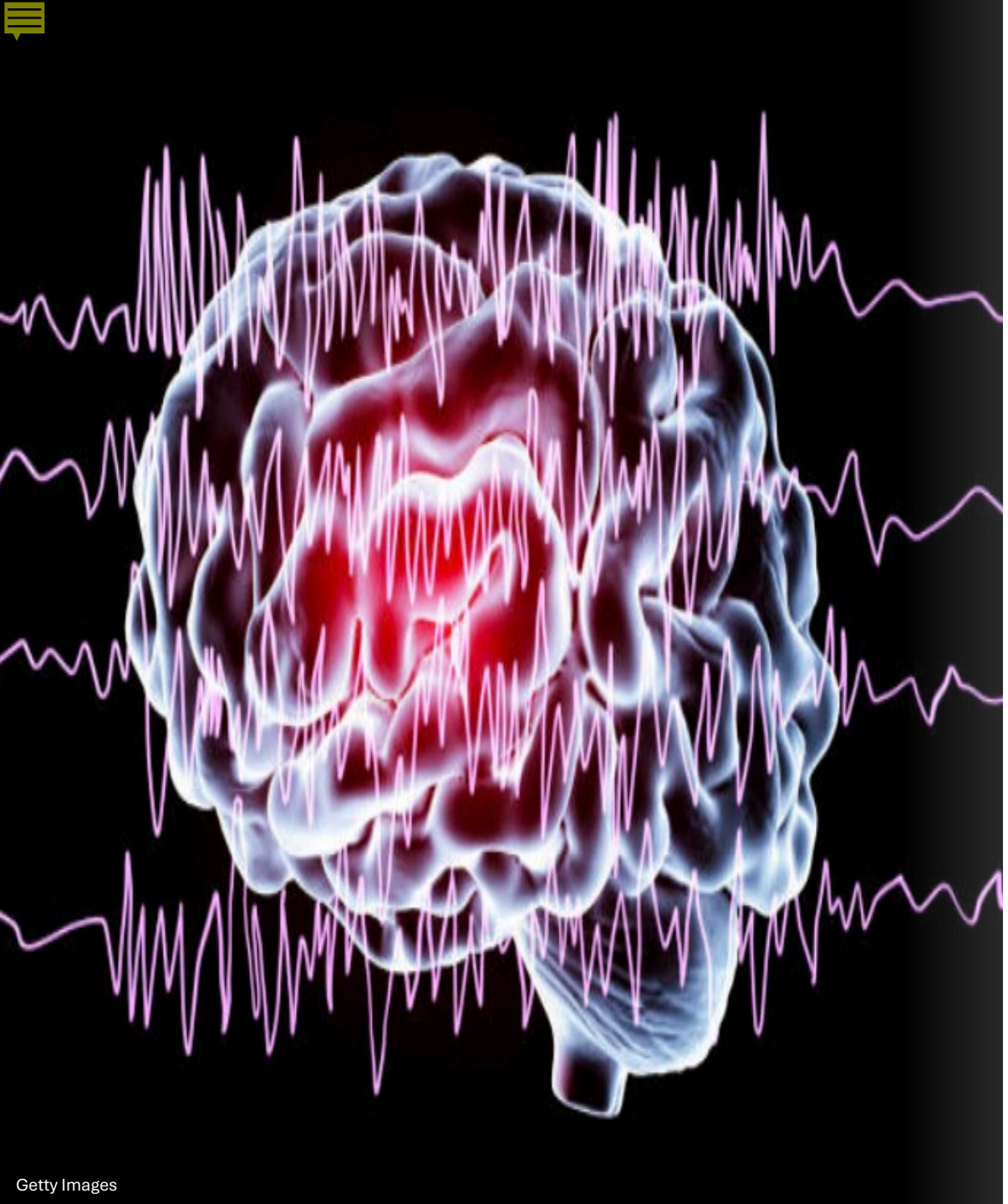
- Vitals
- Co-morbidities
- Facial features
- Neck features
- Body Habitus

Difficult Airway Assessment

- Recognize what makes a difficult airway
- Have a toolkit of ways to approach each issue identified
- Have an algorithm for how you will proceed if things don’t go as expected

→ Don’t be afraid to call for help

→ Don’t be afraid to do a cricothyrotomy



Case 1: Found Down

53 yo M, PMH AUD complicated by withdrawal seizures and DT's, found down s/p presumed seizure. GCS 9 and improving.

- BP: 175/100
- HR: 125
- RR: 28
- O2 Sat: 94%
- Temp: 37.5 ^{o}C

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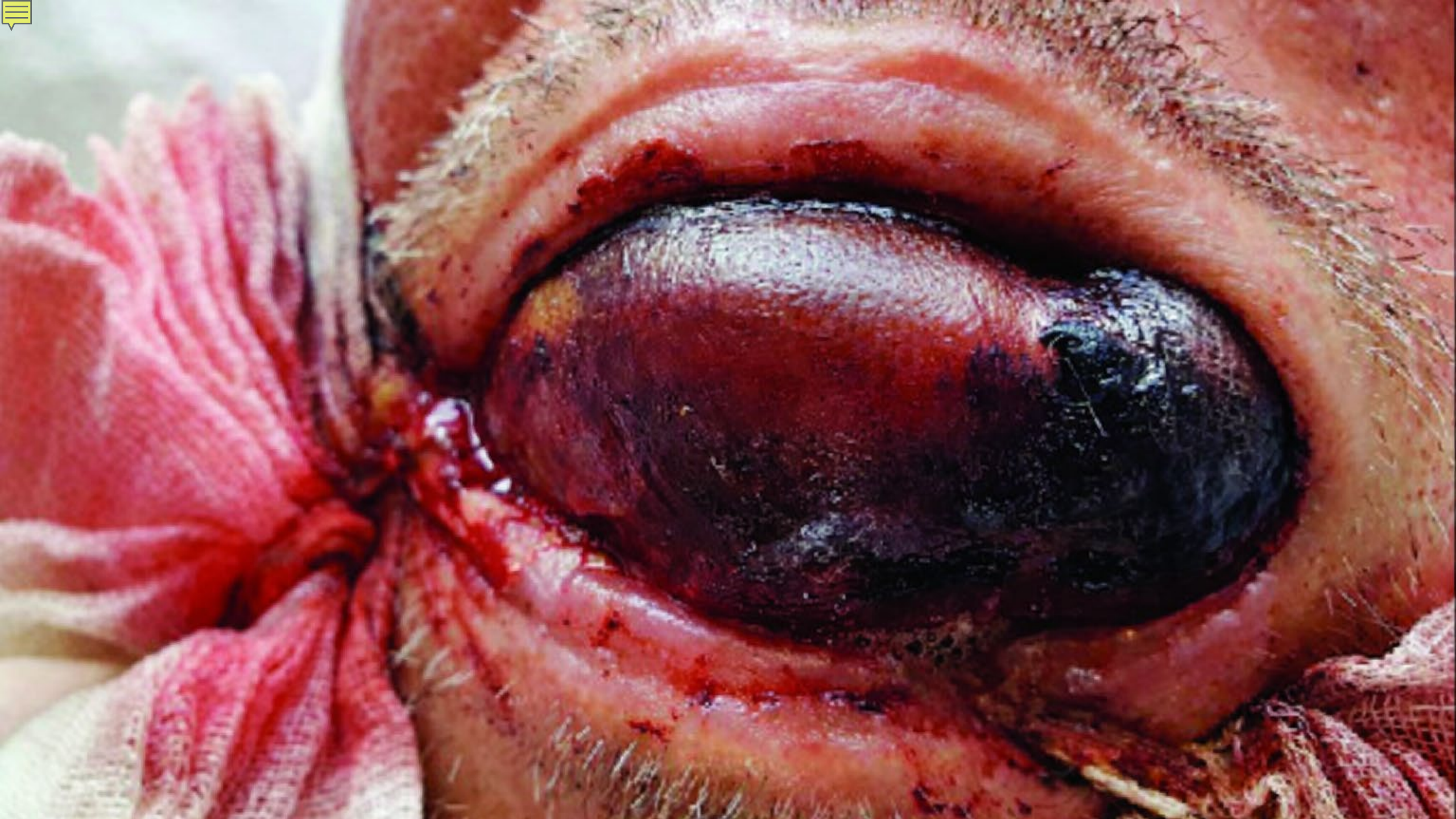
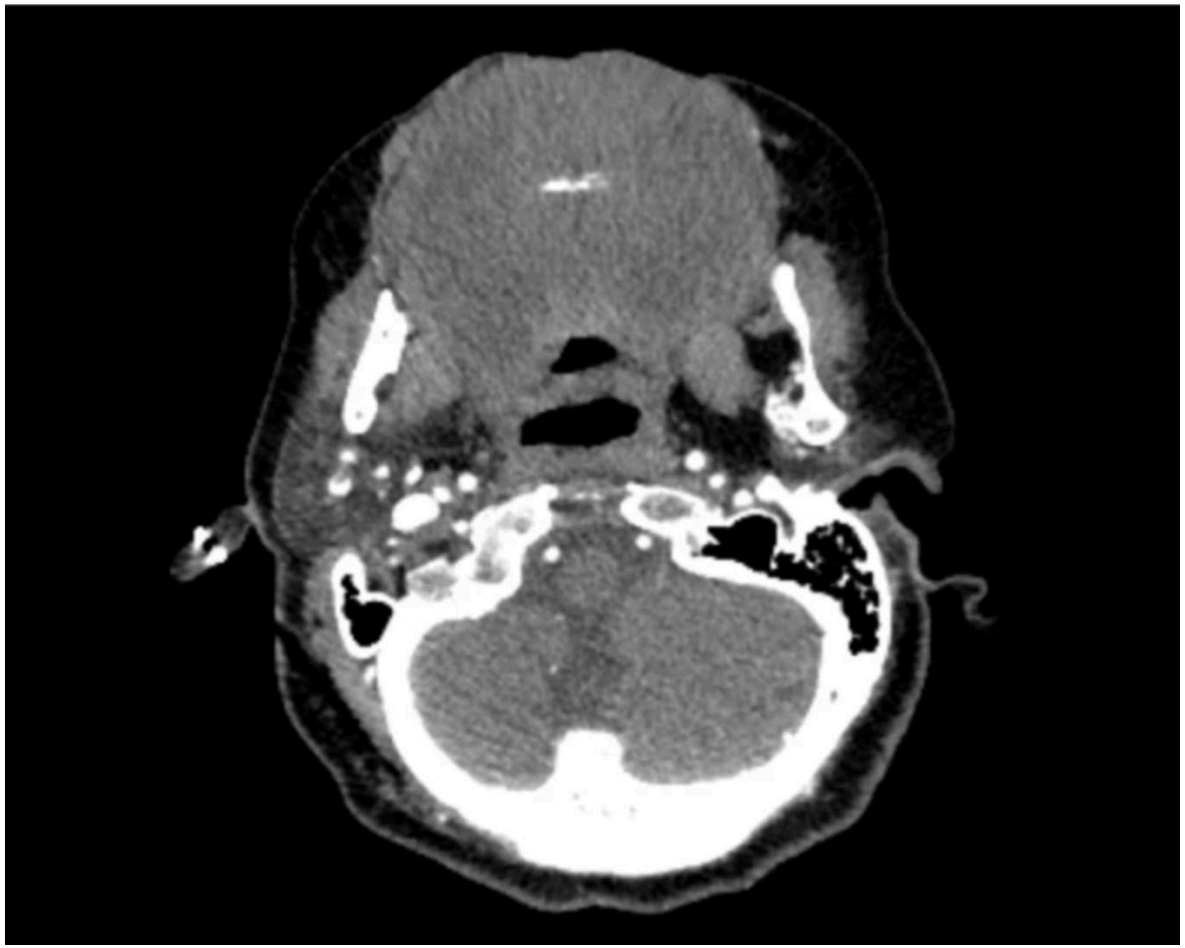


Airway Issues

- Airway obstruction
- Time
- Expected ED course



WHAT NEXT???

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Awake Fiberoptic Intubation

- Indications
  - Known/suspected difficult oral intubation
  - Unstable cervical spine
  - Abnormal anatomy
- Relative Contraindications
  - Severe facial trauma/massive bleeding
  - Obtunded
  - “Crash airway”
- Nasotracheal vs Oral


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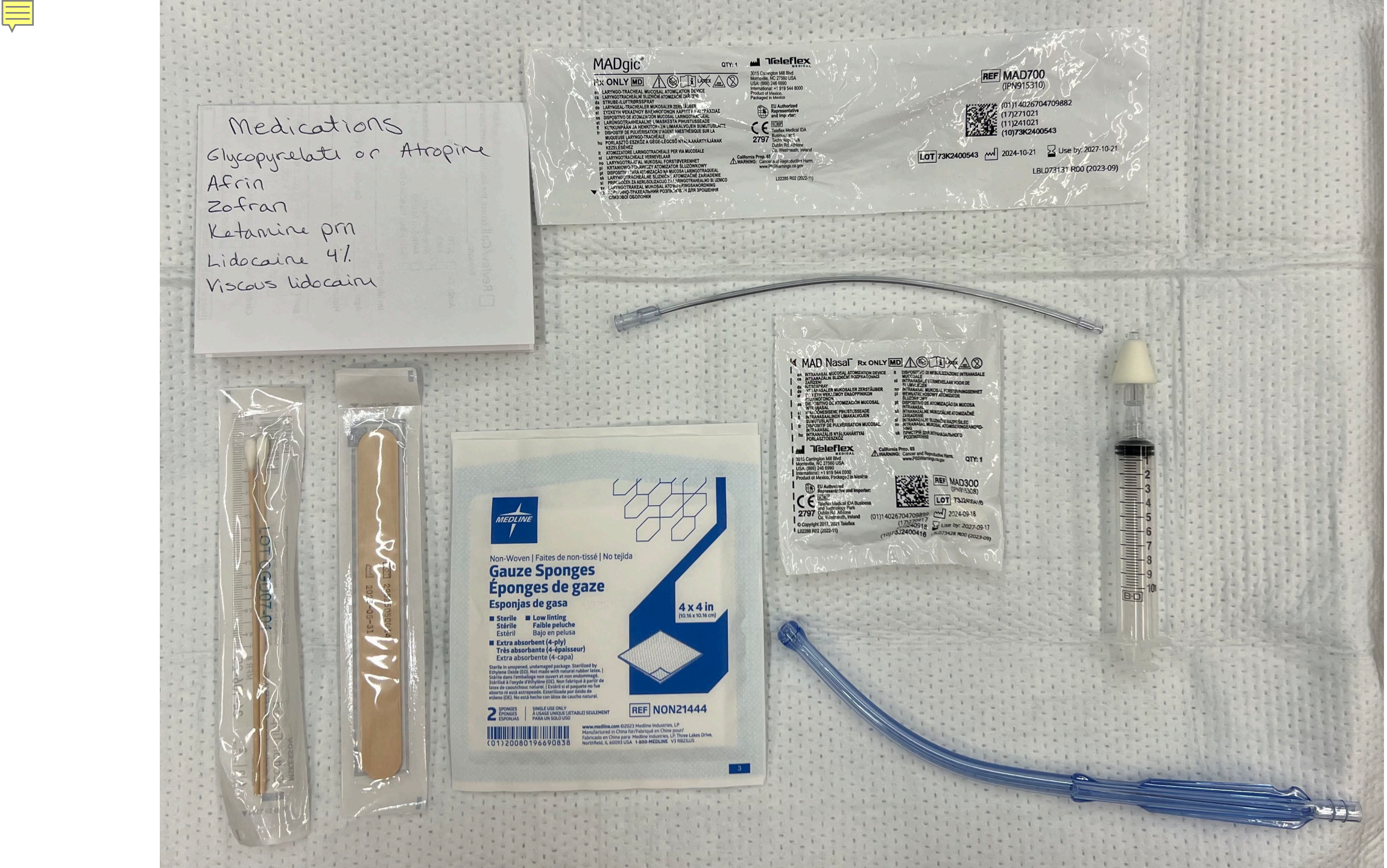
Airway Preparation

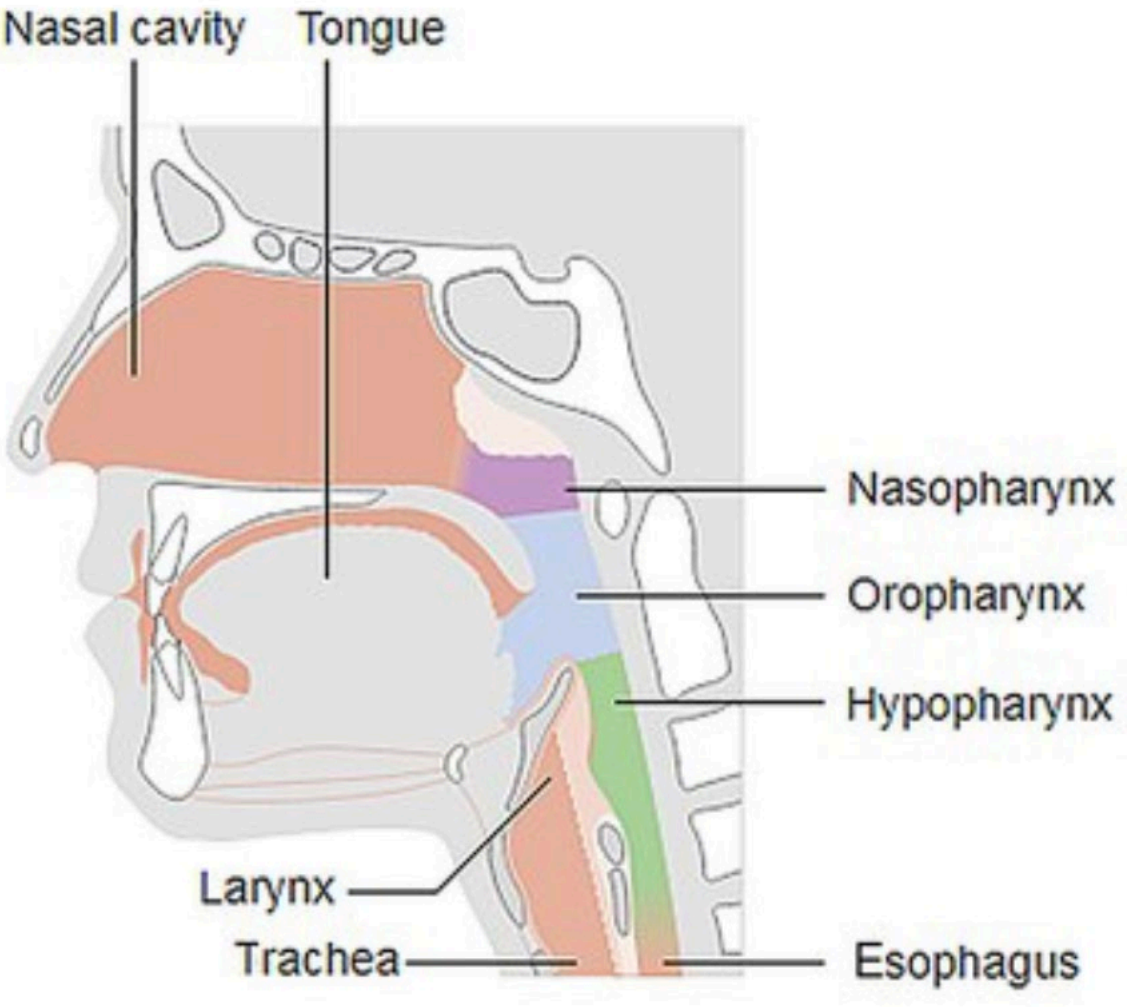
- Pre-oxygenate
- Positioning
- Dry them out, take away their gag
  - Glycopyrrolate 0.2mg IV or atropine 0.1mg/kg
  - Zofran 4mg IV
  - Suction and use gauze to wipe off excess saliva
- Topical Anesthesia
- Sedation


Medications
Glycopyrelate or Atropine
Afrin
Zofran
Ketamine prn
Lidocaine 4%
Viscous lidocaine
MADgic
Rx ONLY MD
LARYNGO-TRACHEAL MUCOSAL ATOMIZATION DEVICE
Teleflex
REF MAD700
(IPN915310)
LOT 73K2400543
2024-10-21
Use by: 2027-10-21
MAD Nasal
Rx ONLY MD
REF MAD300
MEDLINE
Non-Woven | Faites de non-tissé | No tejida
Gauze Sponges
Éponges de gaze
Esponjas de gasa
4 x 4 in
(10.16 x 10.16 cm)
REF NON21444

Topicalize

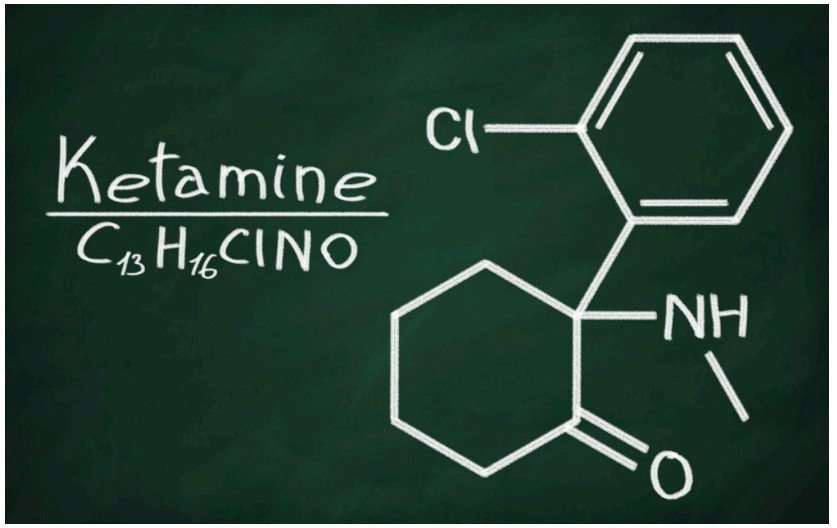
- Afrin in nares
- 4% lidocaine nasal atomizer
  - 1-2 mL
- 4% lidocaine laryngeal atomizer
  - 1-2 mL
- Gargle viscous lidocaine

- Optional: 4% lidocaine down the cords- 3 mL max



Max 4mg/kg = 70kg x4 = 280mg 4% lidocaine

Sedate/Dissociate



- Ketamine
  - 1-1.5mg/kg dose range for full induction
  - Give small bolus (20-30mg) then 10mg every minute
- Propofol
- Etomidate
- Versed/Fentanyl

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Lots

Topical

None

Lots

Ketamine

None

Fully Cooperative

Totally Uncooperative or No Time

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Back to our Case

- Decision to secure airway and scope
- Patient topicalized
- ENT called for back-up due to nasal intubation
- Ketamine 20mg IV slow pushes prn
- Nasal approach with visualization of the cords and epiglottis
- Once we saw this, asked patient to sniff in through nose and then passed the scope through the cords.
- Then gave full induction med for passing the tube

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Other Options?

- Double prep
- Give meds
- Attempt from above with someone at the neck, landmarks already palpated, ready to cut

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Case 2: Coney Island Hot Dog Eating Contest

- 47 yo M, unknown PMH, witnessed cardiac arrest while eating a hot dog. Got ROSC in field after.

- BP: 100/60
- HR: 65
- RR: 12-16 (BVM)
- O2 Sat: 89%
- Temp: AF

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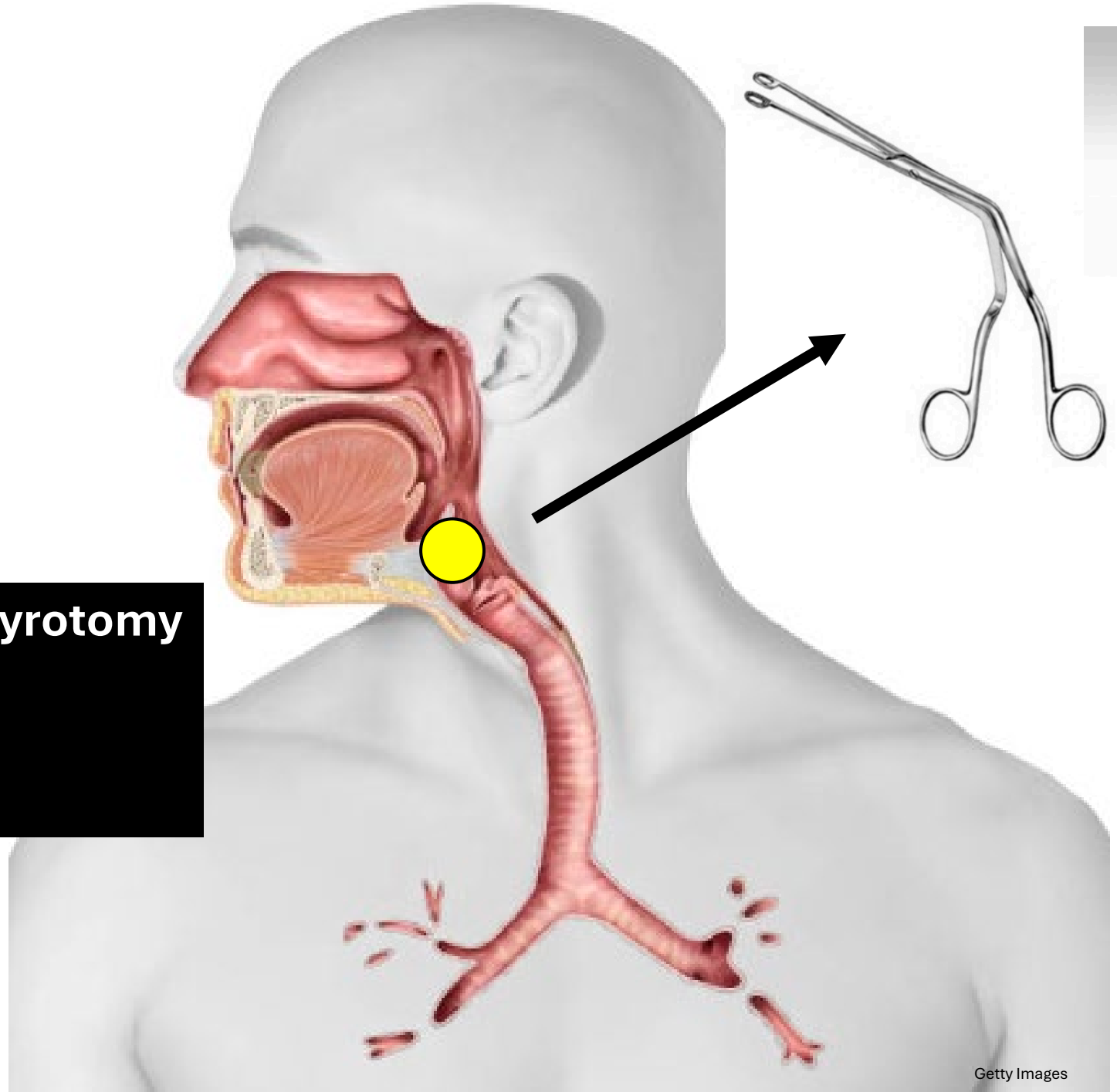
Airway Issues

- Hemodynamics
- Oxygenation
- Presumed FB obstruction

WHAT NEXT???

Be ready for cricothyrotomy

- 6.0 ETT
- Scalpel
- Bougie



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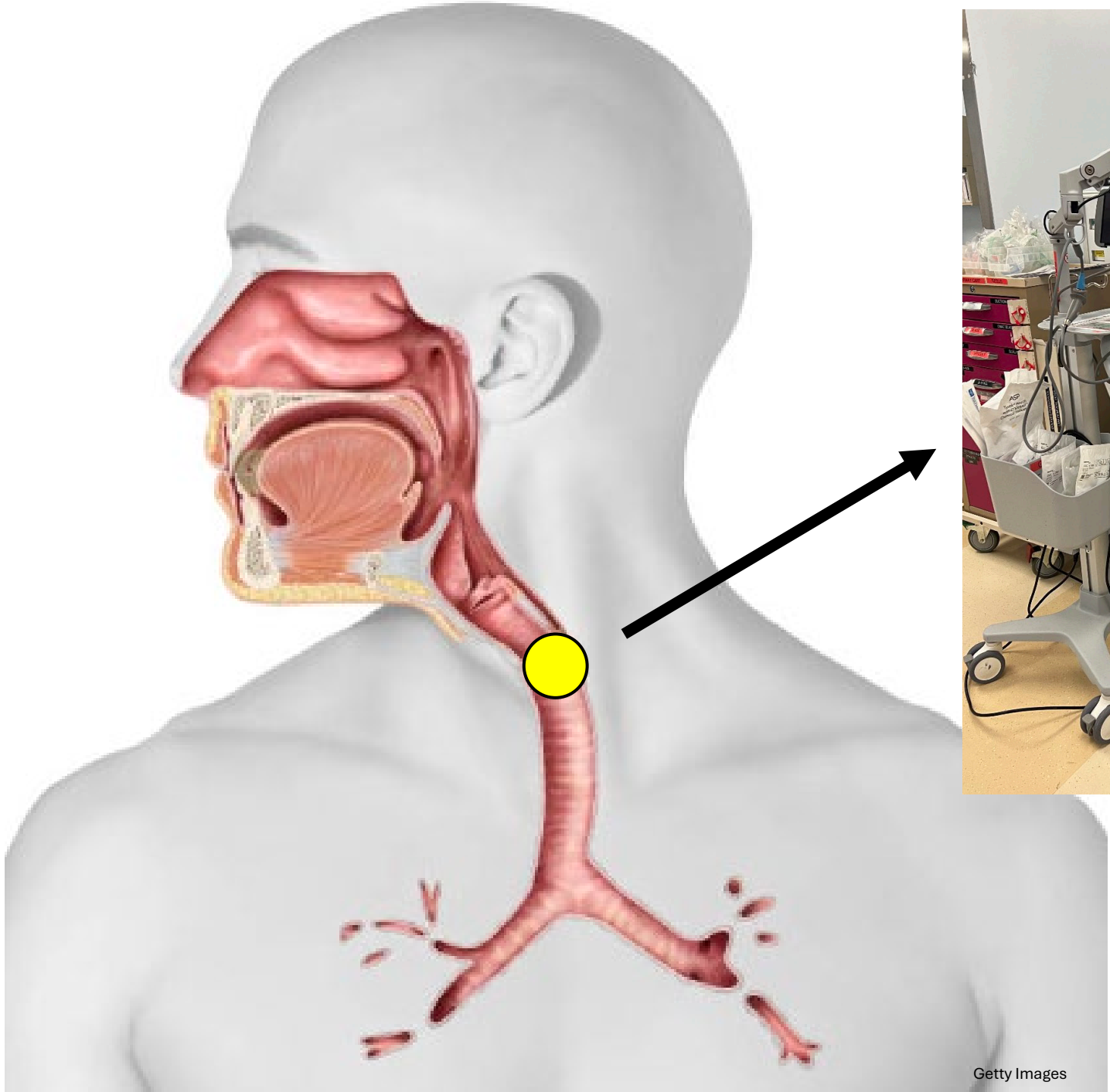
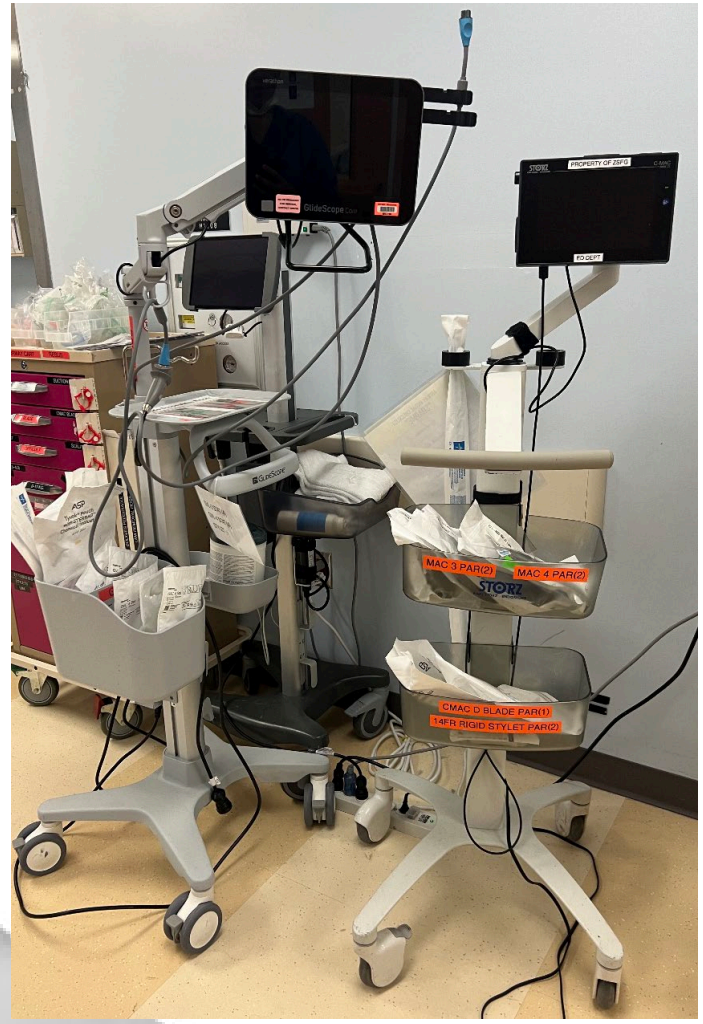
R Mainstem





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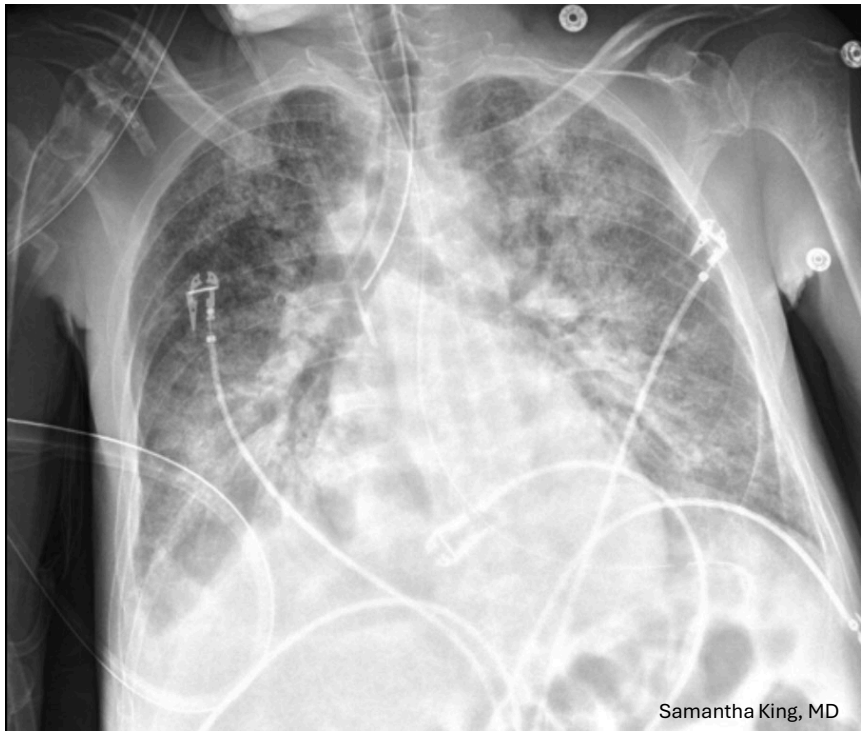
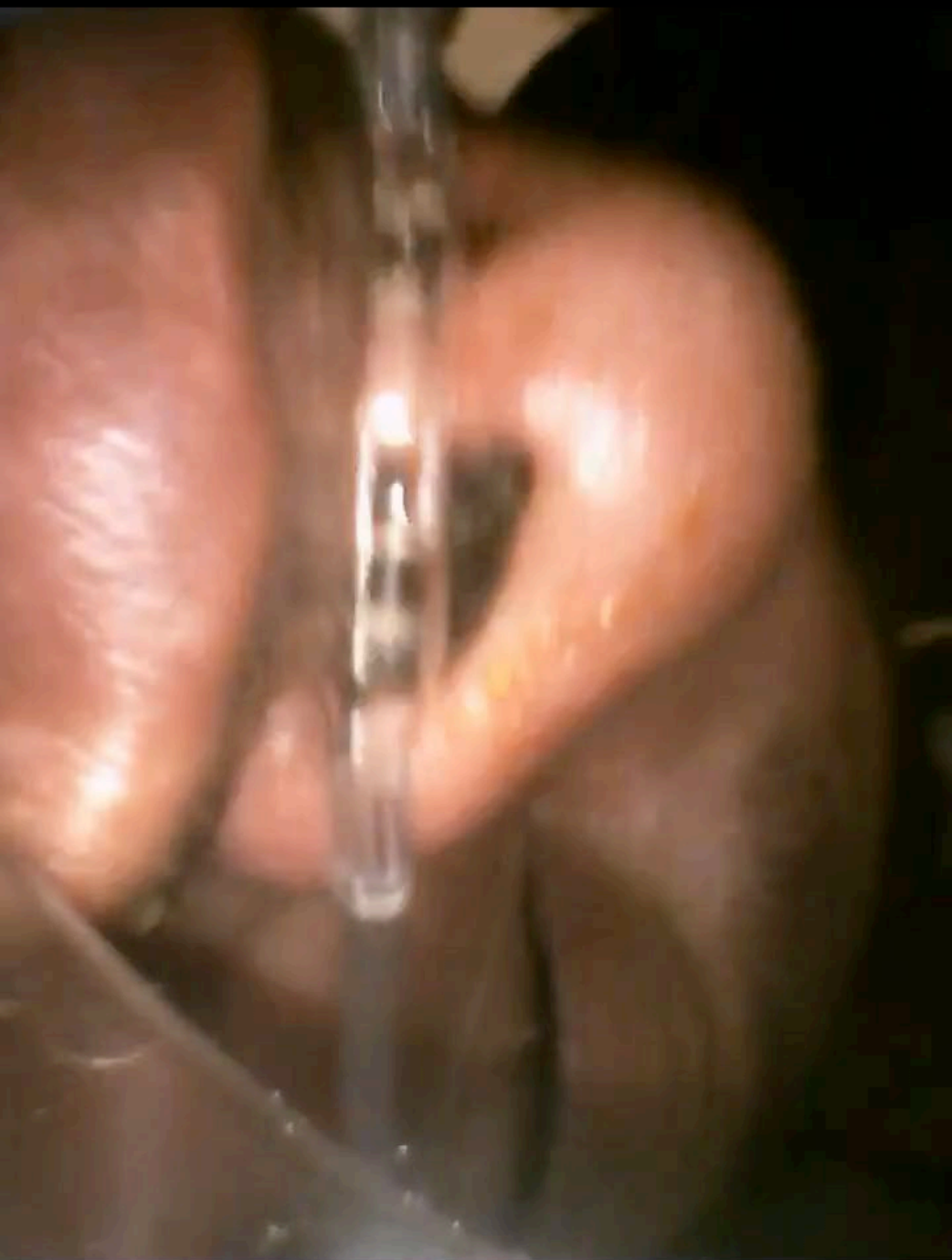
R Mainstem the Obstruction

- Intubate using VL as you normally wound
- Almost hub the ETT at the mouth to ensure that you are past the carina
- Bougie through tube
- Pull back ETT to normal distance





Back to our Case

- Eventually brought adult McGills and able to extract most of hot dog
- Intubated without issues and oxygenation/ventilation OK
- Bronchoscopy for further FB removal
- Pt did well- no cognitive issues

Conclusion

- Develop a scripted airway assessment
- Know your airway algorithms and plan A, B and C
- Awake intubation with fiberscope when oral obstruction and have some time
- Topicalization is EVERYTHING!
- Know your anatomy to help facilitate your scope
- Foreign body management depends on where the FB is

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Questions?
Thank you!
Scott Smorra photography

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