

Post-operative Tonsillar Bleed with Airway Compromise (Updated for MSA)

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Patient Presentation

- 51yo female with a history of morbid obesity with a BMI of 47.9, OSA, type II diabetes mellitus, GERD, hiatal hernia, and lingual tonsil hypertrophy
- Planned lingual tonsillectomy with otolaryngology to reduce CPAP requirements
- Mallampati IV with thick neck on physical exam
- CBC, BMP, and INR were within normal limits



Anesthetic Course

- RSI with grade 2b view on VL using MAC4, boogie used as adjunct
- Case completed without intraoperative complications
- Extubated with new bleeding from tonsillar bed causing hypoventilation
- No view on VL attempt due to blood in the posterior oropharynx
- Rescue LMA placed with successful ventilation and tamponade of bleeding site
- Reintubated through LMA with fiberoptics
- Admitted to the ICU intubated with oral packing in place and made full recovery



Background

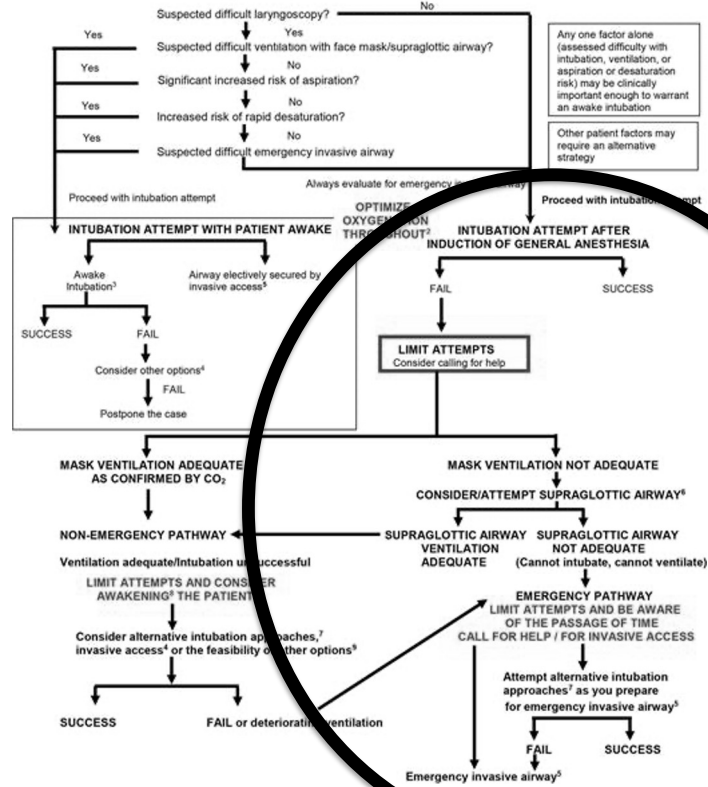
- Two types of difficult airways – anticipated and unanticipated emergent
- Factors that make up a difficult airway
 - Clinical history (i.e. previous difficult intubation, distorted airway anatomy, imaging findings, snoring, BMI, etc.)
 - Facial anatomy (i.e. mouth opening, prominent upper incisors, upper lip bite test, presence of a beard, Mallampati score, etc.)
 - Neck anatomy (i.e. thyromental distance, neck circumference, neck mobility, etc.)



Algorithm

ASA DIFFICULT AIRWAY ALGORITHM: ADULT PATIENTS

Pre-Intubation: Before attempting intubation, choose between either an awake or post-induction airway strategy. Choice of strategy and technique should be made by the clinician managing the airway.¹



Discussion

- Patient became an unanticipated and emergency difficult airway post-operatively
- Cannot intubate cannot ventilate cases have an incidence of 0.01 – 2 in 10,000 cases but make up 25% of anesthesia related deaths
- Based on small scale retrospective observational studies:
 - Unanticipated and emergency difficult airways have an 82% first attempt success rate on DL
 - Rescue intubation success rates are 78% on DL, 92%-100% on VL, and 78% on flexible bronchoscopy after failed mask ventilation
 - After failed rescue intubation, rescue ventilation with an LMA success rates are 94.1%
 - Successful percutaneous tracheotomy and cricothyrotomy success rates are between 95.3% and 97.6%



Take Home Points

- Difficult airways are either anticipated or unanticipated emergent
- Previously feasible airways may become unanticipated difficult airways
- Several factors play a role in difficult airways (clinical, anatomical, unexpected, etc.)
- Cannot intubate cannot ventilate cases make up 25% of anesthesia related deaths
- It is imperative that anesthesiologists know the difficult airway algorithm in order to save patient lives



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