Obstetric Anaesthesia
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Keep it Simple!

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Introduction

Obstetric general anaesthesia (OGA) comes with the possible risk of aspiration. The gold standard for airway management is a rapid sequence induction and tracheal intubation. While failed intubation in obstetrics is uncommon (1 in 443) the consequences are serious.1 The use of a supraglottic airway device (SAD) in obstetrics as rescue allows for ventilation/oxygenation and it can be used as a route to securing the airway.2,3 Our aims were to observe local approaches to failed intubation in OGAs and standardise the use of fibreoptic intubation (FOI) through SAD in a cannot intubate/can ventilate scenario.

Methods

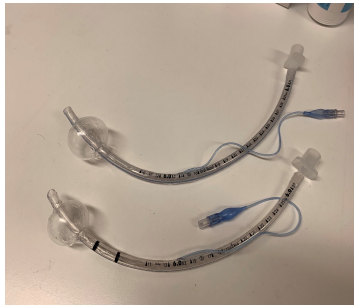
We sampled trainees and consultant anaesthetists on the obstetric rota. We simulated a failed intubation rescued with a SAD during a category 1 caesarean section in a patient at high risk of regurgitation. Simulations took place in the anaesthetic room in delivery suite with all locally available equipment. We observed participants approaches and then introduced our method of intubating through SAD using a fibreoptic scope and a size 6 microlaryngeal tube (MLT).

Results

- 27 participants
  - 19 took part in simulations
  - 8 completed the management questionnaire
- 16 trainee participants
  - none had received prior simulation training in ventilatable failed intubation scenarios in obstetrics
- 13 different approaches to management with 3 general themes
  - 19 continued with the SAD
  - 7 removed the SAD
  - 1 woke the patient, converting to a regional anaesthetic.
- Our proposed method gained support from all participants for its local implementation.

Picture1: MLT Vs Standard Endotracheal Tube

MLT (top) has a larger cuff size (28mm Vs 22mm), longer (31cm Vs 27cm) and same inner/outer diameter. Allowing the endotracheal tube to adequately pass though the SAD, reach subglottically and inflate to give a good seal.



Discussion

Simulations identified a number of potential threats, one being a wide heterogeneity in individual management. Many participants removed the SAD, potentially losing their ability to oxygenate. Our method reduces this risk by having the SAD in situ in case of failed FOI. In addition, some candidates requested equipment which is not available locally (e.g. intubating LMA). We reviewed the contents of our obstetric difficult airway trolley which routinely contains a size 6.0 endotracheal tube and an Aintree intubating catheter. Trainees reported unfamiliarity with the latter, while all had proficiency in use of SAD and FOI. All obstetric anaesthesia consultants agreed our method should be adopted and the difficult airway obstetric trolley to be stocked accordingly. The simulation was presented at local governance and will be adopted in general theatres as well (Airway Committee approval pending-not met during pandemic).

References

1. Kinsella SM, Winton AI, Mushambi MC, et al. Failed tracheal intubation during obstetric general anaesthesia: a literature review. Int J Obstet Anesth 2015; 24::356-74.

2.Wong P, Sng BL, Lim WY. Rescue supraglottic airway devices at caesarean delivery: What are the options to consider? Int J Obstet Anesth 2020; 42:65-75.

3.Metodiev Y, Mushambi M. Supraglottic airway devices for Caesarean delivery under general anaesthesia: for all, for none, or for some? Br J Anaesth 2020; 125: e7ee11.