Management of failed intubation in a septic parturient

Editor—I read with interest the case report by Hinchcliffe and Norris1 describing the management of a failed intubation in a septic parturient. The two Letters to the Editor highlight some of the shortcomings of their approach.2,3 I share their concerns, and some more. The case is about unexpected failed intubation but very little information is provided about the physical findings and what contributed to this failed intubation. Obesity alone is not a good indicator of difficult intubation, although obesity associated with a short thick neck and limited neck extension is.4

The initial decision to proceed with general orotracheal anaesthesia was a sound one. However, as intubation was perceived to be difficult and face mask ventilation required two persons, a decision was made to awake the patient and proceed with epidural anaesthesia. Inadequate expertise in other airway management skills, especially use of the flexible bronchoscope (FB), and concern about aspiration seem to be the reasons for the chosen pathway. Both mother and baby could have died due to severe hypotension not responding to vasopressor therapy.

Awake fibreoptic intubation has been applied successfully under similar conditions.5 My experience gained from management of close to 200 unexpected failed intubations is that most failed rigid laryngoscopic intubations are easy fibreoptic intubations. Not using fibreoptic bronchoscopy for either awake or asleep intubation indicates lack of experience and skill in using it.5,7

Tracheal intubation could have also been achieved using an intubating laryngeal mask (Fastrach).6 In trained hands, this technique is successful in more than 95% of cases. The Combitube is a good alternative and easy to use when intubations have failed and face mask ventilation is difficult. If needed, fibreoptic tracheal intubation can be performed before the Combitube is removed.7 The recently introduced Pro-Seal LMA, although not my first choice in a patient at high risk of aspiration, would have offered another alternative. The higher seal pressure and ability to pass a nasogastric tube to decompress the stomach are two characteristics of this device that make it a suitable alternative for emergency use, especially when the type and duration of surgery is limited as was the case with this patient.9

Avoiding face mask ventilation during rapid sequence induction and intubation is common practice; however, there is no evidence in the literature in support of it, and this widely accepted practice needs re-evaluation.7 Inappropriate application of cricoid pressure can interfere with mask ventilation as well as tracheal intubation.10 Gentle face mask ventilation with oxygen will delay the onset of desaturation and will warn the anaesthetist of possible inappropriate application of cricoid pressure in the presence of difficult mask ventilation. A five degree Trendelenburg tilt will prevent aspiration in a case at risk of regurgitation while reducing or removing the need for cricoid pressure. In some cases of failed intubation, that is all that is necessary. This was not tested in the reported case.

A common cause of unexpected failed intubation is hypertrophy of lingual tonsils (LTH).11 It is the responsibility of the anaesthetist to perform fibreoptic pharyngolaryngoscopy in these patients after extubation in the operating room or in the post anaesthesia recovery room, to rule out the presence of tonsillar hypertrophy.

Informing the patient with a letter summarizing the incidence, techniques that have failed, technique that was successful, and the physical and fibreoptic endoscopy findings, is critical to avoid future disasters if the patient needs another general anaesthetic. Failure to execute this responsibility is as grave a shortcoming as not mastering fibreoptic intubation, and other airway management techniques which are critical for management of a failed intubation.

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Editor—Thank you for the chance to reply to Dr Ovassapian’s letter. We are concerned that debate over the details of airway management per se could obscure the central message of our report, namely that in the general population of labouring women with pyrexia who have received antibiotics, regional anaesthesia should normally remain the preferred choice for Caesarean section. Dr Ovassapian feels that our initial decision to opt for general anaesthesia was the correct one, but in retrospect, the risk of neuraxial sepsis seems to be low in this group, whereas the risks of general anaesthesia and specifically airway problems are well described. We were interested to read that like ourselves, Dr Ovassapian did not feel that awake fibreoptic intubation from the
outset was the correct choice, in contrast to the views of other correspondents. The reference to the potential problem of cardiovascular decompensation as one reason to favour general anaesthesia is well made and this was a feature in our case, but for the majority of labouring women with low-grade pyrexia this is unlikely to be an issue.

Since Tunstall first promulgated his failed intubation drill and subsequent maternal mortality reports criticized repeated attempts at intubation, obstetric anaesthetists in the UK have been acutely conscious of the pressure to make an early decision regarding awakening their patients if intubation appears difficult. Subsequently, until very recently, intubation related maternal deaths under anaesthesia had almost disappeared in the UK. Many women have probably been allowed to wake up unnecessarily, but if this has saved a small number from airway disasters then surely it is an acceptable price? In our case, we reported the initial use of two-handed mask ventilation with cricoid pressure as Dr. Ovassapian suggests, but adequate oxygenation was not restored, so in the absence of an immediate threat to the mother’s life we decided to awaken her.

The LMA, ILMA and Combitube have indeed all been used successfully to recover an airway, facilitate ventilation or act as a conduit for intubation. However, if the airway is maintained, spontaneous respiratory efforts are recurring, and the decision has been made to awaken the patient, then placing these devices in the partially anaesthetized and partially paralysed patient may make things worse.

We would agree that the overall level of competence with fibreoptic intubation (FOI) is not what it should be. Once direct laryngoscopy had failed and the patient awakened, we decided (despite one of the author’s own experience of FOI in emergencies) to attempt regional anaesthesia first, rather than FOI in a confused, uncooperative, hypoxic patient in advanced labour.

The comments on lingual tonsillar hyperplasia are relevant. Our patient did in fact later undergo direct and fibreoptic laryngopharyngoscopy in the AICU, when a Cormack and Lehane grade 2b view was obtained, the significance of which was explained to the patient.

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