Management of cases of anticipated difficult intubation. Commentary on article M. Łasińska-Kowara et al.: "Complications after using the Airtraq laryngoscope for a predicted difficult intubation"

Pawel Andruszkiewicz¹, Piotr Konopka², Marcin Siciński³

¹²nd Department of Anaesthesiology and Intensive Therapy, Medical University of Warsaw, Poland
²Department of Anaesthesia and Intensive Care, Bundaberg Base Hospital, Queensland, Australia
³Guy’s and St Thomas’ NHS Foundation Trust, London, Great Britain

We read the paper by Łasińska-Kowara and colleagues with great interest [1]. The report presenting the case of a predicted difficult intubation educational. We do believe, however, that the strategy chosen raises many doubts and compels us to think how the described sequence of events during attempted intubations could have been avoided.

Based on the history taking and physical examination, possible difficulties in endotracheal intubation for a scheduled surgical procedure in the prone position were rightly anticipated. The authors decided to attempt an intubation using the Airtraq laryngoscope (plan A) under local anaesthesia and sedation and fibreoptic intubation under sedation (emergency plan B).

The conclusions presented in the 4th National Audit Project (NAP 4) explicitly indicate that many complications associated with securing the airway in patients with predicted difficult intubations were caused by not implementing of awake fibreoptic intubation technique [2]. According to the recommendations of the American Society of Anaesthesiologists (ASA) and Australian and New Zealand College of Anaesthetists (ANZCA) [3], fibreoptic intubation should be the first-choice method for predictable difficult intubation.

Despite increasingly available video laryngoscopes, according to the Frerk and ANZCA guidelines, there is no evidence that standard laryngoscopes should be replaced by their non-standard equivalents (e.g. Airtraq) in difficult intubations. It is puzzling that the authors decided to use the laryngoscope knowing that the inter-canine distance was markedly limited (2.2 cm; normal > 3.5 cm) and difficulties in laryngoscopy were extremely likely to occur.

In anticipated difficult intubations and when the use of video- or fibrescopic devices is intended, the presence of saliva can significantly hinder visualisation [5, 6]. The authors do not mention the use of atropine or glycopyrrolate during preparation for anaesthesia, which are administered to provide “a dry” operating field.

Many articles and textbooks emphasize that successful intubations mostly depend on efficient local anaesthesia rather than deep sedation [5, 6]. Patients under deep sedation or even light general anaesthesia after premedication with midazolam, 15 mg, followed by intravenous fentanyl, midazolam and propofol are at risk of suboptimal airway maintance. Good doctor-patient communication is essential during any procedure under local anaesthesia. Therefore, in such cases the commonly used drug is remifentanil, a controllable opioid, in intravenous infusions.

The authors’ statement that “after preoxygenation, we achieved an appropriate level of sedation” might suggest that during the intubation attempts, passive oxygenation was not attempted. The majority of authors emphasize the importance of continuous oxygen delivery during fibreoptic intubation via the oxygen nasal cannula or a nasal suction catheter [3, 5–8].

The dramatic events (bleeding, desaturation) described by the authors in details made direct and fibreoptic laryngoscopy impossible.

The difficulties in “insertion of a fibrescope behind the tongue” were most likely caused by the heavy sedation. A cooperative patient could have been asked to stick the tongue out and tilt the head back which greatly improves the fibreoptic view. In an unconscious patient this can be achieved by a jaw thrust, using the Ovassapian oropharyngeal airway or pulling the tongue out with the Magill forceps.

Considering the events described by the authors, we applaud their decision to abandon further attempts and wake the patient up [7].
Sometimes, if there are no technical or logistic options to perform and awake FOI (urgent surgery, lack of appropriate equipment, or experience), the chosen management — tracheotomy in local anaesthesia — is the only way to secure the airway and proceed with the surgery.

However, one would expect that in Polish circumstances the better option would be either a transfer to a different hospital or arranging a loan of an appropriate equipment and inviting a skilled operator.

Before the purchase of a fiberoptic scope for our anaesthetic department we often requested assistance of our pulmonologists, who routinely perform awake bronchoscopies or our colleagues anaesthetists from the maxillofacial surgery unit working in a different hospital, where an awake nasal fibrescopic intubations are frequently.

The case is the best evidence that an appropriate preparation is of utmost importance.

Recently, numerous videoscopic devices have been promoted to assist with a difficult intubation, when direct laryngoscopy fails. Nonetheless, most authorities agree that the optimal method in anticipated difficult airways is the awake fiberoptic intubation.

We do agree with the authors that this method requires skills and equipment, but fiberoptic intubation is a part of an advanced anaesthetic training.

In our institutions, following an internal difficult airways course, residents perform supervised fiberoptic intubations for elective surgical procedures.

Such a training allows them to develop the manual dexterity and practical skills to manage real life difficult airway scenarios. We have used awake fibreoptic intubations in cases of predicted difficult airway for several years. We are convinced that this technique allowed us to avoid many dangerous and stressful situations.

References:

Corresponding author:
Paweł Andruszkiewicz
2nd Department of Anaesthesiology and Intensive Therapy, Medical University of Warsaw, ul. Banacha 1A, 02–097 Warszawa, Poland
e-mail: pawel_andruszkiewicz@cyberia.pl