Airtraq laryngoscope for intubation in Treacher Collins syndrome

SIR—Treacher Collins or Francescetti syndrome or Mandibulofacial Dysostosis is a congenital malformation of craniofacial development. He is characterized by hypoplasia of malar bones, palpebral fissure sloping downward and laterally with coloboma of the lower eyelids, micrognathia, malformation of external, middle and inner ear and cleft palate. In these patients conventional direct laryngoscopy is very difficult and often unsuccessful.

The Airtraq laryngoscope is a new single-use device for orotracheal intubation: an optic device and an anatomically curved blade that guide the tracheal tube in a lateral channel (Figure 1). An excellent view of the glottis is performed without the necessity to align oral, pharyngeal and laryngeal axes and the guide to the tube. Many studies and case reports are available about his use in adult patients (1,2).

Our patient was scheduled for avulsion of four permanent teeth under general anesthesia. Preoperative evaluation revealed a 10-year-old female (28 kg and 137 cm) with no other medical history. All characteristics of Treacher Collins syndrome were noticed including a previously repaired cleft palate. Difficult intubation was related for a previous tympanoplasty, but intubation procedure was unknown. Thyromental distance was 5 cm, inter-incisor distance 3 cm and Mallampati class III. Difficult airway management was anticipated.

Standard monitors were placed including electrocardiogram, pulse oximeter and noninvasive blood pressure cuff. An intravenous catheter was placed under 50% nitrous oxide/oxygen inhalation before induction of anesthesia. Preoxygenation with 100% oxygen was then performed via a face mask and monitored with a capnogram and measured FetO₂. Induction was realized with a 150 mg propofol bolus. Face mask ventilation was easily performed with placement of a Guedel canula. A 30 mg succinylcholine bolus was administered and anesthesia was maintained with 2% sevoflurane inhalation. Direct laryngoscopy with a no. 3 Macintosh metal blade (Greenlite, Truphatek, Netanya, Israel) permit only visualization of Cormack 3 class. The gum elastic bougie was not used because the oro pharyngeal angulations' seems too small and the epiglottis was completely stucked on the posterior pharyngeal wall. After face mask ventilation, the Airtraq device (size 2; Vygon S A, Ecouen, France) was easily introduced and the glottis was immediately visualized. Two intubation attempts failed because tracheal tube takes always a posterior way under the glottis despite adjustments of the Airtraq distal position. Finally, a gum elastic bougie (Frova Intubating Introducer® French size 14; Cook, Charenton, France) was advanced through the Airtraq lateral channel and easily introduced through the glottis. Intubation was realized with a 5.5-ID-armored tracheal tube. Total procedure duration from induction to first capnogramm was 15 min. Lower saturation was 95%.

This observation is the first report of an Airtraq intubation in a difficult airway child. Difficulties was encountered because we use a size 2 device, recommended for 6–7.5 ID tracheal tubes (a size 1 device was not available in France at this time), but intubation was easily performed with the help of a gum elastic bougie. Airtraq is a good alternative to fiberoptic intubation for difficult intubation in a Treacher Collins syndrome child, an appropriate size is recommended.

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References


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