Use of the nasotracheal Airtraq® to assist difficult nasal fiberoptic intubation

To the Editor:

The Airtraq® (Prodol Meditec S.A., Vizcaya, Spain) is an indirect laryngoscope that allows visualization of the vocal cords and facilitates intubation in patients with cervical spine immobilization.^{1,2} Further development has led to the design of a nasotracheal Airtraq®, allowing intubation through the nose under visual control. We report using the nasotracheal Airtraq®, in conjunction with a nasal fiberoptic bronchoscopy, to achieve a successful intubation rendered difficult by a rigid cervical collar and copious bloody secretions.

The patient, a 40-yr-old 85-kg man, was wearing a custom-made moulded thoracocervical rigid collar due to an unstable C2 fracture. He was scheduled for an elective reduction and osteosynthesis of a fractured mandibular condyle under general anesthesia. His preoperative airway assessment included a Mallampati grade IV with a mouth opening of 15 mm between his central incisors due to the mandibular fracture and cervical collar. Besides his recent trauma, his medical history was unremarkable.

Following preoxygenation and intravenous induction of general anesthesia (propofol 2 mg·kg⁻¹, fentanyl 2 µg·kg⁻¹, and vecuronium 0.1 mg·kg⁻¹), facemask ventilation was uneventful. Nasotracheal fiberoptic intubation with a 6.5-mm nasotracheal tube was attempted and unsuccessful due to copious bloody secretions and a collapsed orotracheal pathway. Also, maneuvers, such as pulling out of the tongue or jaw-thrust, were impossible due to the collar. After three attempts, desaturation occurred requiring further facemask ventilation, while general anesthesia was maintained by an infusion of propofol (5 mg·kg⁻¹·hr⁻¹). After restoration of oxygen saturation to 99% and a subsequent failed fiberoptic intubation, a nasotracheal Airtraq® was introduced through the patient's mouth while fibroscopy was still in progress. At this point, the epiglottis and vocal cords were easily visualized. The nasotracheal Airtraq® operator gave verbal directions (up, down, left, right, forward, and back) for the fibroscopy, and tracheal intubation was achieved. Correct positioning of endotracheal tube placement was confirmed by capnography. The surgical procedure was uneventful, and at the end of the operation, the patient's trachea was extubated without problems while he was awake. His recovery was uneventful.

The successful completion of this case, in the face of

bleeding from nasal mucosa and a limited mouth opening due to the presence of a cervical collar, illustrates a potential role for the nasotracheal Airtraq® device in a difficult nasotracheal intubation under general anesthesia. However, caution must be exercised when using the nasotracheal Airtraq® in this type of case, as the instrument has been reported to cause bleeding and oropharyngeal lesions.^{3,4} A cautious airway assessment and definition of rescue plans must always be available in the management of patients with restricted neck mobility and limited mouth opening.

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Editorial elective

To the Editor:

I write to express my gratitude for the opportunity to undertake a one-month editorial elective with the *Journal*, which I recently completed. I am the second anesthesia resident to have participated in this *Journal*-related pilot project. Owing to this experience, I have gained a new appreciation for the world of scientific and medical writing and biomedical publishing, an area that few residents understand or appreciate.