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Editorial comment: This month's articles focus on airway management

Dear reader of this month's TACC edition

The increasing number of published articles in *TACC* concerning airway management reflects the focus of this journal. The readers will recognize the importance of adequate, up-to-date airway management as an important contribution to patient wellbeing and perioperative safety. In this edition of *TACC*, there are several articles highlighting this focus:

Jackson and colleagues from Newport and Cardiff have looked at the incidence of airway catheters introduced too deeply [1]. The manikin study evaluates four common airway devices (the Exchange Catheter, the Frova Introducer, and the Aintree Intubation Catheter by Cook as well as Rüschi's Endoguide-T) and how often they were introduced beyond 26cm by 72 anaesthetists with >2 years of experience. The bad news is that this happens in up to 88%. Even worse is the fact it takes only seconds until pneumothorax develops if 2–4 L/minute of oxygen is applied over the catheter. It suffices that the catheter is in a wedge position lodged for a pneumothorax to occur. And the statement is clear, avoid deep insertion. Even more important, and perhaps less obvious at first: do not apply oxygen over such catheters, the risk outweighs the benefit by far. A graphic example of what may happen with application of continuous oxygen is found in the famous coroner's report of the investigation concerning the death of Gordon Ewing in 2010, available online here [2].

Marc Kriege and Ruediger Noppens [3] provide a nice, concise opinion paper about the use of supraglottic (extraglottic? What a wonderful opportunity to discuss heftily and emotionally about the difference and importance of this distinction) airway devices. As surprising as it may sound to British anaesthesiologists, supraglottic airway devices are not univocally recognized throughout the world. One reason may be that the differences among supraglottic airway devices are not appreciated sufficiently. Second generation devices are not comparable to first generation devices and the differences among manufacturers are considerable.

The short letter by Neeraj Kumar explains how the Baska™ supraglottic airway device may be used as a conduit for a temperature probe placed in the esophagus [4]. Indeed, second generation supraglottic airway devices most often grant access to the esophagus and this may offer an elegant opportunity to comply with monitoring guidelines. The only thing to acknowledge here is that not all second generation supraglottic airway devices feature access to the esophagus, as the original definition by Tim Cook and Ben Howes states [5].

Ajuzieogu et al. publish their study about the benefits of filling the tracheal cuff with alkalised lidocaine instead of air [6]. The manuscript comes with a nice reference list showing that this

concept underwent several revivals, both in adults and in children. The most notable publication comes from Soares et al. who in pediatric patients compared cuffs filled with air, saline and alkalised lidocaine.

Chaari et al. evaluated the TaperGuard™ cuff used by Mallinckrodt as a means to prevent leakage in a sheep trachea model [7]. Cuffs with a tapering form are wider on the proximal side, and progressively narrower toward the distal part. Chaari et al. showed there was less leakage and thus, presumably, fewer cases of ventilator associated pneumonia cases. A similar finding has been shown for tracheostomy tubes as well [8]. While in-vitro studies such as this one are an important first step in the ADEPT protocol (take a look at this important concept [9]), it is necessary to keep in mind that clinical studies have the last word about the efficacy of new devices in airway management. Indeed, first studies have not yet been very promising. A study published in *Anesthesiology* in 2016 failed to show fewer postoperative pneumonia cases when tapered-cuff tracheal tubes were used instead of spherical-cuff tracheal tubes [10]. Instead, perhaps using thin polyurethane membranes instead of PVC may be beneficial, as suggested by a review in *Critical Care* [11].

Matthew Everson submitted the case of an elderly patient with a significant tracheal cuff leak. It turned out that the problem was not the cuff, but the trachea [12]. The CT scan showed a marked tracheobronchomegaly with a subglottic diameter of 42mm. The case report reminds us that while horses are common (or in this case, cuff puncture), zebras exist as well, so it does not suffice to only look at hooves

Singh et al. provide a case of a ventilator alarm caused by the use of a jet nebulizer with antibiotics [13]. While the case itself is not far-out, the letter describes very nicely how aerosolized particles are being distributed.

Finally, Massimiliano Sorbello, the local organizer of the European Airway Congress 2018 in Catania, Sicily, gives an overview of the congress, its venue and the most important highlights [14]. To paraphrase a speech in similar Olympic circumstances, EAC 2018 was the best airway congress ever! And we are all looking forward to EAC 2019 in Amsterdam November 13–16th 2019, which will be organized together with the Difficult Airway Society DAS and the Society of Airway Management SAM, forming WAMM, the World Airway Management Meeting. Be there!

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