Extubation aid in double lumen tube exchange in difficult airway cases operated for thoracic surgeries

Sir,

Double lumen tube (DL T) is used in thoracic surgical procedures. A majority of these surgeries mandate postoperative elective ventilation. It is a common practice that DL T is exchanged with conventional endotracheal tube (ETT) before transferring the patient out of the operating room.

The exchange of the tracheal tube requires a fiberscope, which is not available in many operation theaters in developing countries. In case the airway is not difficult, the DL T is removed and a conventional ETT is placed in the trachea. However, if the patient has a difficult airway, extubation of DL T should be guarded and a ventilating tube exchanger should be used. Commercially available ETT exchangers are usually 70 cm long and thus may not serve the purpose. Gum elastic bougies and hollow tube exchangers are also not enough long to replace DL T. Some extra-long (Cook's DL T exchanger, 100 cm length) tube exchangers are available commercially but they are expensive and their availability is limited.

We have successfully used, in 26 cases, a novel indigenous hollow ventilating DLT tube exchanger i.e., 260 cm length, 0.9 mm Bentson exchange guidewire (Cook® Medical Inc, Bloomington, IN, USA) sheath. This sheath has appropriate length for above purposes and can be utilized for any sized DL T. It is latex-free, safe, flexible, and easily available.

These extra-long sheaths cover the guidewires are used in percutaneous nephrolithotomy surgery by urologists. DLT of adult sizes (37 F, 39 F) are 45 cm long and to exchange them, a 90 cm tube exchanger is required. In difficult airway situations, hollow ventilating exchangers are always better. On its proximal end of this sheath, 4.0 mm ID ETT connector can be easily mounted [Figure 1], which can be utilized for oxygenation or ventilation during exchange of tubes.

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Clinical implication of “blind area” of laryngoscopes in pediatric patients

Sir,

Airway management in pediatric patients is considered to be more challenging than that in adults due to anatomical differences. Although successful laryngoscopy
does not guarantee successful intubation, it is a pre-requisite for successful airway management. The larynx in infants is more cephalad and more anterior. The proximity of tongue to the larynx makes the visualization of laryngeal structures difficult, thus justifying the use of straight (Magill’s) blade for laryngoscopy as it lifts the tongue more efficiently from the field of vision.\textsuperscript{1,2} Moreover, the Magill’s blade has minimal or no BLIND AREA. Blind area is the distance between the blade tip and the direct line of sight from eye to tongue inlet [Figure 1].\textsuperscript{3} In the Magill’s blade the reduced blind area is because of the flattened mid blade and thus it has reduced 'crest of hill effect’ when compared with the Macintosh blade.\textsuperscript{4} The clinical implication of blind area is that, on laryngoscopy, the area underneath is not visualized and this could lead to increased temptation to use levering and forceful action when used by inexperienced trainee. Considering this, straight blade should be the blade of choice as it has minimal blind area. The disadvantage of a straight blade is greater potential to damage the epiglottis due to its direct elevation than the curved blade, which lifts the epiglottis with the indirect approach.\textsuperscript{4} There may be difficulty in inserting the endotracheal tube as it provides a narrow C-shaped channel to view the larynx.\textsuperscript{4}

Cardiff pediatric laryngoscope is a modified pediatric laryngoscope, combining the features of both curved and straight blade that could be used in children of all ages [Figure 2]. The tip of the blade is slightly curved, but the proximal 6 cm of the Cardiff blade is straight with minimal blind area so that no part of the blade obscures the line of sight. The blade is Z-shaped in cross section and thus provides more room inside the mouth with less chances of obstructed view during tracheal intubation.\textsuperscript{5-7} It also encourages the gentle indirect lift of the epiglottis and avoids unnecessary forceful action when compared to conventional straight and curved blades. Cardiff pediatric laryngoscope, with minimal blind area, appears to be superior to conventional straight and curved blades.

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