Modification in Laryngeal mask airway CTrach tube design

Sir,

Laryngeal mask airway (LMA) C Trach is a supraglottic device, which is functionally identical to intubating laryngeal mask airway (ILMA),but in addition has an integrated fiberoptic bundle with liquid crystal display(LCD).[1] When compared to ILMA, C Trach enables ventilation and allows real time visualization of endotracheal (ET) intubation with endotracheal tube.[2,3] The LMA CTrach is inserted in neutral head position by using one handed rotational technique.[3] Following confirmation of the adequate lung ventilation, the LCD is connected to the C Trach and the laryngeal structures are visualized. After obtaining the best laryngeal view, the tracheal tube is passed through the barrel of the C Trach. The LMA C Trach ET intubation tube has a black horizontal line 10 cm proximal to the cuff and as this line starts disappearing from the barrel of the LMA C Trach the epiglottis elevating bar gets lifted and the tracheal intubation is facilitated under direct vision.[4] Following ET intubation tube, LMA C Trach is removed.

The black horizontal mark on the LMA C Trach ET intubation tube indicates the position of the ET intubation tube in relation to the epiglottis elevating bar, but it does not help in ensuring the correct depth of ET intubation tube with in the trachea.

All routinely used polyvinylchloride ET intubation tubes have a black mark 2.5-3cm proximal to the cuff, which gives a rough estimate of the length of ET intubation tube to be inserted within the trachea. This black mark when placed at the level of vocal cords during intubation ensures optimal placement of the tube tip in the mid tracheal position.[5] The intubation through ILMA is a blind procedure; therefore, ET intubation tube of ILMA does not have any black mark. On the other hand, the intubation via C Trach is carried out under direct vision, so the presence of a black mark 3 cm proximal to the cuff on the ET intubation tube, when placed at the level of vocal cords, can act as a guide for the correct depth placement of the tube within the trachea [Figure1].

As LMA C Trach removal following ET intubation is a blind procedure, advancement of the tracheal tube is usual at this time as one tends to exert slight downward pressure on the ET tube so that it does not slip out at the time of removal of C Trach. The correct initial placement facilitated by the black mark on the C Trach ET intubation tube would also prevent excessive advancement of ET intubation tube at the time of C Trach removal, especially, when used by inexperienced trainees. Thus, this suggested modification of the LMA C Trach ET intubation tube design could help in correct placement of the tube with reference to the black mark placed at the level of cords under vision.

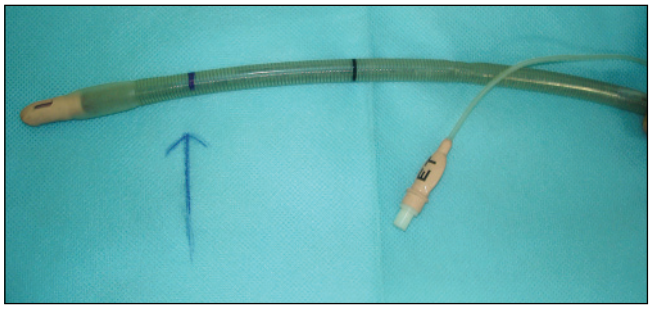

Figure 1: Arrow mark indicating the desired black mark on the posterior surface of laryngeal mask airway C Trach endotracheal intubation tube.

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