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Physical Manipulation of Larynx as a Technique for Insertion of Nasogastric Tube

Sir,

Nasogastric (NG) tube insertion is often a difficult task in patients who are anesthetized and have endotracheal tubes *in situ*. The failure rate of insertion in the first attempt is reported to be as high as 50% in neutral position of the head.¹ The most common sites of impaction of orogastric and NG tubes are the pyriform sinuses and arytenoid cartilages.² Frequent unsuccessful attempts may lead to hemodynamic instability (tachycardia, hypertension) and nasal mucosal bleed.

Different methods have been suggested to reduce the number of unsuccessful attempts. These include the use of slit endotracheal tube, neck flexion with lateral neck pressure, use of glidescope, use of guidewire or angiography catheter.³ Physical lifting of the larynx off the esophagus (reverse Sellick's maneuver) has been investigated in one study only.⁴

We report a case of a 40-year male Chinese patient where we used this method successfully. The Chinese patients have larger superoposterior airway space, a larger nasopharynx and oropharynx cross-sectional area with a smaller tongue thickness.⁵ These features distinguish the Chinese population from other Asian races.

Our patient weighed 75 kg with a body mass index (BMI) of 27.5 kg/m² and was scheduled for laparoscopic cholecystectomy for cholelithiasis. The laboratory parameters were normal except for mild hyponatremia with sodium of 133 meq/l.

After application of standard monitoring, general anaesthesia was initiated. Gastric decompression was required by the surgeons; therefore a NG tube of 16 Fr was attempted orally after lubricating the distal end of the tube with a water soluble gel. Two unsuccessful attempts were made, but the NG tube failed to pass from the oropharynx into the esophagus. A third attempt was made by physically lifting the larynx off the esophagus by holding it on both sides with the help of thumb and index finger (Figure 1). This simple physical maneuver resulted in the NG tube passing easily from the oropharynx into the stomach. NG tube placement was confirmed by auscultation at the epigastrium.

This simple maneuver reduced the number of unsuccessful attempts and we recommend further research on it.



Figure 1: Physically lifting the larynx off the esophagus by holding it on both sides with the help of thumb and index finger.

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