Airway Management with Videolaryngoscope in a Morbidly Obese Patient in a Tertiary Care Centre: Are the Peripheral Hospitals Ready for Such a Scenario?

Sir,

Difficult Airway management is definitely a nightmare, especially when attempted during the emergency settings when the resources are limited. It further gets compounded in the presence of morbidly obese patients with the limited respiratory reserve presenting for an emergency surgery requiring general anesthesia.\[1,2\]

Evidence is enough to show that with the dawn of the era of videolaryngoscope (VLS), the incidence of failed intubation in patients with anticipated difficult airway is fewer.\[3\] VLS as an alternative to direct laryngoscopy has proved to be path breaking in airway management.\[4\] Fiberoptic awake intubation as considered a standard requires time to acquire the skill and the equipment is costly.

We present a 75-year-old lady, weighing 125 kg with body mass index of 52 presented with suspected obstructed umbilical hernia for emergency surgery. She was a known case of obstructive sleep apnea and chronic obstructive pulmonary disease on home bilevel positive airway pressure therapy. Other comorbidities included diabetes, hypothyroidism, and depression. Airway examination revealed normal mouth opening with Mallampati Class IV, neck circumference of 45 cm, neck movements restricted, all pointing toward difficult airway [Figure 1].

General anesthesia with awake intubation was planned. Preoperatively, antisylogogue was administered. Intubating laryngeal mask airway and fiberoptic bronchoscope were kept as a standby. After attaining the airway blocks, the patient was shifted to operation theater, padded well at pressure points, and placed in a ramped-up position. Adequacy of mask ventilation checked followed by preoxygenation with 100% oxygen for 4 min. Check videolaryngoscopy with Kingvision™ channeled laryngoscope with size three blade was performed by an anesthesia trainee on call under supervision, which revealed Cormack-Lehane Grade III. VLS was tolerated well. The patient intubated with size 7.5 mm endotracheal tube in one attempt with minimal hemodynamic response.

Incidence of difficulty to intubate in obese patient can be as high as 11% with 6% patients difficult to mask ventilate.\[5\] As our institute being a tertiary care center with the anticipated difficult airway, we were better prepared. Difficult airway adjuncts with fiberoptic bronchoscope were
kept as our Plan B; however, VLS was utilized by a trained resident as a Plan A with success in securing the airway in the first attempt.

Scenario is different in constraint environment such as peripheral hospitals and primary health centers where unanticipated emergency airway management is a daunting task. In such places with very limited resources and unavailability of the skilled anesthesiologist, the situation becomes very challenging. VLS can play a vital role as rescue devices in the absence of fiberoptic equipment for managing difficult airways of patients unfit for transfer to higher referral centers.

Use of VLS can be translated into other emergency situations where airway management is required by less-skilled personnel such as paramedics in trauma and field emergency situations.

Recent Cochrane review by Lewis et al. comparing VLS with direct laryngoscopy where 64 studies were enrolled with 7044 participants could find only two studies which recruited the obese patients. The review stressed about the success of VLS in difficult airway situations.[3]

Therefore, more studies need to be conducted for larger usage of VLS for utilization of securing airway by the paramedics and residents. To conclude, VLS as a tool can be exposed to a larger population as in peripheral, smaller medical setups. Wider availability of VLS in such settings can prove to be a boon to the caregivers.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
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Deepak Dwivedi, Vidhu Bhatnagar, Urvashi Tandon, Pawan Kumar
Department of Anaesthesia and Critical Care, Institute of Naval Medicine, INHS Asvini, Colaba, Mumbai, Maharashtra, India

Address for correspondence: Dr. Deepak Dwivedi, Department of Anaesthesia and Critical Care, Institute of Naval Medicine, INHS ASVINI, Colaba, Mumbai - 400 005, Maharashtra, India.
E-mail: deepakdwivedi739@gmail.com

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