Difficult Laryngeal Mask Airway Placement

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To the Editor;

Laryngeal mask airway (LMA), which consists of a silicone tube connected to a miniature silicone mask appropriate for the shape of hypopharynx and covers the larynx as a gasket, was developed in 1980s in the United Kingdom. It is frequently used both to avoid negative effects of endotracheal intubation by establishing direct connection with the airway of patient and to easily provide a more reliable airway as compared to the facial mask. It has particular importance in difficult airway management and cardiopulmonary resuscitation since it can be successfully placed even by inexperienced users. Gel is applied to the posterior surface of the mask and it is placed blindly into the airway by pushing towards hypopharynx while the head of the patient is in extension position. Herein, we present a case, in which LMA could not be placed despite several attempts and a mass tissue was detected in the hypopharynx during laryngoscopy performed subsequently.

An 81-year-old, 70 kg male patient was scheduled for cystoscopy in the urology clinic. Preanaesthetic evaluation revealed no pathology or concomitant disease except for advanced age. He had previously undergone prostate surgery under spinal anaesthesia. His Mallampati score was 3 and he had a large tongue (Figure 1). As the procedure was anticipated to take a short time and the patient, who had a high Mallampati score, did not want to be awake during the procedure, LMA was preferred for airway management.

Induction of anaesthesia was made with propofol, fentanyl and rocuronium, the patient was easily ventilated with a face mask, and an attempt was made to place a size 5 standard LMA; but as the mask, which was pushed forward, came back, it was thought that the mask was large for the patient and the attempt was repeated using a size 4 mask. However, as this attempt was also unsuccessful, it was thought that silicone tip of the balloon was folded; thus, I-Gel (size 4), which is a supraglottic airway device without a cuff and stands more stable, was tried to be placed. However as size 4 I-Gel LMA was pushed forward and ventilation was initiated, a significant air leakage occurred, and considering that size 4 was small, we again tried using size 5. However, observing substantial amount of air leak at the end of all these attempts, LMA was planned to be placed under laryngoscopic guidance. Airway examination, which was performed by a Macintosh laryngoscope, revealed a 2x2 cm mass located at the base of the hypopharynx, covered by normal mucosa, and appeared to be neither cystic nor ulcerated (Figure 2). It was thought that the mass, which was located at the same place where LMA device was placed, caused the tip of standard LMAs to be folded or remain between the mass and pharyngeal tissue, and hindered I-Gel LMA to closely fit after being placed and caused leakage from the back of the device, and consequently the attempts were unsuccessful. The patient, of whom Cormack-Lehane score was 2, was then intubated by size 8 endotracheal tube. We encountered no problem during intraoperative period and the patient was extubated without problem at the end of the procedure that lasted for 45 minutes; he was recommended to refer to the ENT outpatient clinic. Meanwhile, consent of the patient was obtained for presenting his case as a case report.

Unforeseen dangers might have been in question because of blindly placed LMA, in this patient who had a deeply localized asymptomatic lesion that could not be detected by routine airway examination. If this mass located in the hypopharynx, had been cystic, it would have been perforated during the attempts to place the LMA and would have led to serious conse-

Figure 1. Examination image for Mallampati score

quences by the spread of cyst content into the lungs. Again, if it had been a vascular mass like a haemangioma, it would have been difficult to control the unexpected bleeding. Lingual tonsil hyperplasia, which is more common in paediatric cases, may lead to similar problems (1, 2). Although blind placement of LMA without using a laryngoscope is an advantage, it may turn into a disadvantage in complicated cases and may lead to various problems. In case of recurrent failure while placing a supraglottic device, an airway disorder, as well as common problems such as incompatibility between device and patient anatomy and folded balloon, should be considered and attempts should aim at performing non-traumatic interventions as much as possible without insisting on blind replacement.

Informed Consent: Written informed consent was obtained from patient who participated this case report.

Figure 2. The appearance of the mass through the laryngoscope

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - A.D.; Design - A.D.; Supervision - Ü.K.; Funding - E.G., O.A.; Materials - A.D.; Data Collection and/or Processing - A.D.; Analysis and/or Interpretation - A.D., Ü.K.; Literature Review - O.A., E.G.; Writer - A.D.; Critical Review - Ü.K., E.G., O.A.; Other - Ü.K., E.G., O.A.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

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