

Letters to the editor

Tube obstruction of CobraPLA in a patient with fixed flexed neck

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To the editor: The CobraPLA (Engineered Medical Systems, Indianapolis, IN, USA) is a new supraglottic device used for airway management that consists of an inflatable cuff and a small and softened distal end [1–3]. The anteroposterior width of the distal end is smaller than that of a laryngeal mask airway (LMA; Laryngeal Mask Company, Maidenhead, UK). Akca et al. [1] suggest that the CobraPLA requires a smaller mouth opening for insertion and thus its insertion may be easier than that of an LMA.

We used the CobraPLA in a 77-year-old female patient (152 cm, 39 kg) with mouth opening limitation due to rheumatoid arthritis. Because of severe deformation of the lumbar vertebrae, we decided to manage her with general anesthesia for total knee arthroplasty. Initially, we attempted to intubate the patient using a fiberoptic endoscope under light sedation with fentanyl and droperidol with spontaneous breathing. However, we failed to intubate her even after several attempts. Because of excessive secretion and hemorrhage,

oxygenation and ventilation of the patient became insufficient. Subsequently, we attempted to insert an LMA-ProSeal with digital intraoral manipulation to manage the airway. However, the insertion was unsuccessful, possibly due to the patient's short interdental distance of 2.5 cm. We then inserted the CobraPLA, which enabled us to provide successful oxygenation. Thereafter, however, we found inspiratory resistance. The X-ray revealed that the CobraPLA was flexed in the midpharynx (Fig. 1). The tube was flexed and obstructed because the patient's neck was fixed in flexion, which limited further movement (2–3 cm) in addition to the mouth opening limitation (Her thyromental distance was 4 cm). Finally, we were able to ventilate the patient using slow inspiratory flow after a minor correction of the tube position.

When a certain portion of the CobraPLA, which is made of vinyl chloride, is flexed, it can easily collapse in the fulcrum. The obstruction of the tube can be avoided if the CobraPLA has a spiral structure to provide flexibility, which is similar to that of a spiral tube or LMA-ProSeal.

This obstruction of the CobraPLA should be taken into account when it is used for a patient whose neck is fixed in flexion, such as in the condition of rheumatoid arthritis.

References

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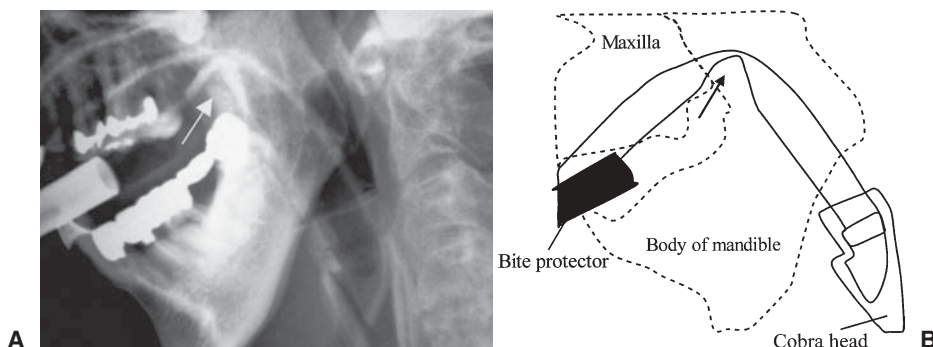


Fig. 1. **A** Obstruction of CobraPLA (arrow). The CobraPLA was flexed in the midpharynx, resembling a flexed knee. **B** Illustration of **A**

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