



# New vision-incorporated third-generation video laryngeal mask airways for intubation of patients in prone position

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Editor,

Sudden unexpected extubation of a patient in the prone position is one of the critical events during general anesthesia. Proposals for an algorithm of airway management in accidental extubation in patients positioned in prone positions were proposed recently, underpinning the role of a supraglottic airway device (SAD) as a first-line approach. [1, 2] (Bosch / Gaszynski). Bosch et al. [1] proposed using the SAD as an intubation conduit but did not specify how it could be performed. Gaszynski's algorithm added the use of a videolaryngoscope (VL) and of the option of fiberoptic intubation through SADs in the prone position. [2, 3] However, the use of a channeled hyperangulated blade VL in patient in the prone position requires operator experience. Fiberoptic intubation (not using supraglottic device in conjunct) in case of a critical situation of an unexpected extubation in a patient in the prone position is even more challenging than a videolaryngoscope attempt. Therefore, the option of fiberoptic intubation (if necessary) through an SAD in a patient in the prone position seems to be an easier alternative. Second generation SADs are constructed to allow for intubation through its lumen [4]. Recently, new vision-incorporated third-generation video laryngeal mask airways became available, which allow for intubation under vision [5, 6]. One such example is the SaCo Video Laryngeal Mask (VLM<sup>TM</sup>, UE Medical®, Zhejiang, China) Fig. 1. Blind intubation through SADs in the prone position is not an acceptable technique due to the high failure rate [7] and therefore should be abandoned in favor of a direct-vision technique [5]. If SADs are used in suitable elective surgical cases with the patient in the prone position, it provides the option to intubate patient, if necessary, in the prone position

without the need to change the patient position. In addition, the new vision-incorporated third-generation video laryngeal mask airways allows for continuing oxygenation to oxygenate the patient during the intubation efforts.

In this letter, a personal experience is described, in which an unexpected extubation occurred during elective spinal surgery with the patient in the prone position.

Patient was anesthetized and intubated in supine position. Just after changing the position from supine to prone, before surgery started, a significant leak in the respiratory circuit was noticed, with a malfunctioning sealing of the SAD cuff. Because oxygenation was possible it was decided not to turn the patient to supine and intubate but remove the endotracheal tube in the prone position and introduce the VLM. After successful VLM placement and providing adequate ventilation, the patient was successfully intubated in the prone position using the VLM as intubation conduit (Fig. 2). The procedure was successful on the first attempt without any complications. As an extra advantage of this technique, ventilation of the lungs is uninterrupted if prolonged intubation attempts would be necessary. There were no complications of airway procedure. Patient consent for publication of picture was obtained.

## 1 Conclusion

This letter supports the alternative use of an SAD in case of an unexpected extubation in a patient positioned in the prone position as a first-line approach. The algorithms of management of a critical situation as a sudden extubation of a patient in the prone position may include an attempt of fiberoptic intubation through the SAD. The new vision-incorporated third-generation video laryngeal mask airways can be used for such purpose as an alternative to fiberoptic intubation.

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**Fig. 1** SaCo Video Laryngeal Mask (VLMTM, UE MedicalR, Zhejiang, China)



**Fig. 2** Use of SaCo Video Laryngeal Mask (VLMTM, UE MedicalR, Zhejiang, China) for intubation in patient positioned in prone position



**Author contributions** TG managed the case, wrote manuscript

## Declarations

**Conflict of interest** Author received honorarium for lecture on airway management from Zhejiang UE Medical Corporation.

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