Reinforced Laryngeal Mask Airway (RLMS) Severed Into Two

Y Shouman

Citation

Abstract
This letter demonstrates how important the use of a bite block with the reinforced laryngeal mask to guard against the risks of damage of the device or the patient's teeth, or most importantly the potentiality of causing airway obstruction.

The laryngeal mask is now regarded as an essential aid to airway management during anaesthesia. The RLMA is a more recent development of the ordinary laryngeal mask airway LMA [1]. Its advantage is that it is more flexible and therefore can be bent without kinking. As a result of this it is widely used during head and neck operations.

The LMA insertion instructions recommend the use of bite blocks to prevent patients from biting the LMA as they wake up from anaesthesia [2]. A wad of gauze [3], translucent surgical vinyl tubing [4], Olympus bite guard [5], tracheal tube holder [6], and two silicon rubber cylinders have been suggested as bite blocks [7]. Although Guedel airway is recommended by some [8, 9] as a bite block, others have refuted it in favour of the gauze roll [10]. Unfortunately, many anaesthetists often overlook the use of bite blocks. Consequently, there is a report in the literature of a patient biting the RLMA as he wakes up from anaesthesia [11]. I wish to report a case in which a patient was able to bite a reinforced airway into two.

A fit 36 years old male patient received a general anaesthesia for replacement of a humeral nail. Anaesthesia was induced withalfentanil 1mg and propofol 180 mg, and a size 5 RLMA was placed. Anaesthesia was maintained using isoflurane in oxygen & nitrous oxide mixture with the patient breathing spontaneously through a circle system. The operation lasted 95 minutes and the patient was stable throughout. At the end of surgery, he was transferred to the recovery area with the RLMA in situ. Regrettably, no bite block was inserted.

In the recovery ward, the patient suddenly woke up and became agitated. He bit on the RLMA and severed it into two halves [fig. 1, 2]. He immediately gagged on the LMA cuff and by the aid of the pilot tube, the distal half of the RLMA was pulled out from his mouth. The patient recovered with no adverse effects.

Figure 2
Figure 2: Severed LMA

Fortunately the patient came to no harm but the outcome could have easily been different. As it turned out, the only loss was the severed RLMA. Had the patient not woken up immediately after biting the RLMA, airway management with half an RLMA in situ would have been difficult or impossible and may have resulted in the patient becoming hypoxic. Other possible less serious complications include;
damaged front teeth

from the patient biting through the RLMA and soft tissue injury resulting from the use of an instrument to retrieve the distal part of the RLMA. Had vomiting and/or regurgitation occurred, management could be extremely difficult too. This case re-enforces once again the importance of using a bite block whenever a patient is left to recover from anaesthesia with an LMA or RLMA in situ.

References

Author Information

Yasser M Shouman, Dr.
Specialist Registrar, Anaesthesia, Leicester General Hospital