Destruction of the LMA-ProSeal™ with the Red Plug during steam autoclaving

To the Editor:

We would like to report a problem we have encountered with the laryngeal mask airway (LMA)-ProSeal™ with the Red Plug (The Laryngeal Mask Company (UK) Limited, Northfield House, Northfield End, Henley on Thames, Oxon, UK).

The LMA-ProSeal™ airway utilizes a unique double cuff arrangement that provides an exceptionally effective airway seal at low intra-cuff pressures. Steam autoclaving is the only recommended method for sterilization of this airway.¹ The cuff must be completely deflated prior to autoclaving. Any air remaining in the cuff will expand in the high temperature and low pressure of the autoclave causing the cuff to distend until it ruptures. A Red Plug vent device has been integrated into the inflation valve-pilot balloon assembly of the LMA-ProSeal™ in an attempt to assure that the cuff of the laryngeal mask can be completely deflated prior to and during autoclaving. The Red Plug should be open during the autoclave cycle to ensure that any air or moisture in the laryngeal airway cuff can escape. The Laryngeal Mask Company has provided the hospital staff responsible for cleaning LMAs with supplementary instructions for the proper cleaning and autoclaving of LMA-ProSeal™ fitted with a Red Plug.²

Recently our department acquired the new LMA-ProSeal™ with the Red Plug to replace aging and failing LMAs. As I opened the sterilized package containing the LMA-ProSeal™ airway for my first patient of the day, I was surprised to find the airway as depicted in the Figure. A large portion of the posterior part of the cuff had been blown free of the airway. The cause of this destruction was evident from examining the Red Plug. Instead of being open to the atmosphere as directed by the manufacturer, the Red Plug was occluded. Clearly, the Red Plug had been occluded before the airway had been autoclaved, resulting in the destruction of the airway.

Inquiries revealed that of our initial five ProSeal™ airways with the Red Plug, four had been destroyed by their first autoclaving prior to patient use. Despite the best instructional efforts of the manufacturer, human error had destroyed these airways. The damaged airways were disposed of with none of the anesthesiologists being aware that there was a problem. Interestingly, our department's respiratory therapists were aware of the problem and had attempted to resolve it. It is estimated that CDN \$1,500 worth of ProSeal™ airways with the Red Plug were destroyed

FIGURE Laryngeal mask airway (LMA)-ProSeal™ with Red Plug integrated into the Inflation Valve-Pilot Balloon. Note the occluded Red Plug.

before the problem was recognized. Additional airways have been destroyed subsequently. Educational programs for the employees responsible for the sterilization of these airways have been implemented. If these efforts fail, our hospital will no longer purchase the ProSeal™ airway because of the costs generated by this problem.

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References

- 1 LMA-ProSeal™ Instruction Manual. Northfield House, Northfield End, Henley on Thames, Oxon, UK, The Laryngeal Mask Company Limited, 2002. (www.LMACO.com).
- 2 LMA-ProSeal™ Supplementary Instructions for Use. The Laryngeal Mask Company Limited, Northfield House, Northfield End, Henley on Thames, Oxon, UK. 2002. (www.LMACO.com).

Use of the OxyArm™ in a patient suffering from trigeminal neuralgia

To the Editor:

A 67-yr-old woman, suffering from trigeminal neuralgia (V₂) for 14 years, was scheduled for laparoscopic cholecystectomy under general anesthesia. At the pre-operative visit, she asked us not to use a conventional mask for postoperative oxygen therapy, because her

neuralgia was easily evoked by touching the left side of her nostril. We therefore decided to use the OxyArm™ (Southmedic Inc., Barrie, ON, Canada) for postoperative oxygen therapy.

The OxyArm™ is a new minimal contact oxygen delivery device that is molded after the headsets used for hands-free telecommunication devices.¹ Contrary to a conventional oxygen mask and a nasal cannula, the OxyArm™ can deliver oxygen without any contact with a patient's face.

Immediately after tracheal extubation, we positioned the OxyArm™ on the patient's head and administered oxygen at 3 L·min⁻¹ for four hours. During the postoperative period, the patient was comfortable without any neuralgia attack nor any desaturation.

The average patient with trigeminal neuralgia describes a specific triggering stimulus, touching the face or chewing, talking or swallowing.² The cutaneous trigger is always a non-noxious stimulus and is usually located in the anterior face.² In this case, both

a conventional face mask and a nasal cannula could be a triggering stimulus of trigeminal neuralgia.

In summary, the OxyArm™ was a useful device for supplying oxygen to this patient with trigeminal neuralgia.

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References

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- 2 Loeser JD. Cranial neuralgia. In: Loeser JD (Ed.). *Bonica's Management of Pain*, 3rd ed. Philadelphia: Lippincott Williams & Wilkins; 2001: 855–66.

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