

- agement in the prehospital emergency setting: Prospective validation of an algorithm. *ANESTHESIOLOGY* 2011; 114:105-10
- Xue FS, Wang XL: Definition, causes and management principles of difficult airway. *Modern Airway Management: A Key Technique for Clinical Anesthesia and Critical Care Medicine*. Edited by Xue FS. Zhengzhou, China, Zhengzhou University Publishing House, 2002, pp 723-34
 - Xue FS, Liao X, Li CW, Xu YC, Yang QY, Liu Y, Liu JH, Luo MP, Zhang YM: Clinical experience of airway management and tracheal intubation under general anesthesia in patients with scar contracture of the neck. *Chin Med J* 2008; 121:989-97
 - Berry JM: Conventional (laryngoscopic) orotracheal and nasotracheal intubation (single-lumen tube), Benumof's Airway Management: Principles and Practice, 2nd edition. Edited by Hagberg CA. St. Louis, Mosby, 2007, pp 388
 - Jabre P, Combes X, Leroux B, Aaron E, Auger H, Margenet A, Dhonneur G: Use of gum elastic bougie for prehospital difficult intubation. *Am J Emerg Med* 2005; 23:552-5
 - Isono S, Ishikawa T: Oxygenation, not intubation, does matter. *ANESTHESIOLOGY* 2011; 114:7-9
 - Liu EH, Goy RW, Lim Y, Chen FG: Success of tracheal intubation with intubating laryngeal mask airways: A randomized trial of the LMA Fastrach™ and LMA CTrach™. *ANESTHESIOLOGY* 2008; 108:621-6
 - Nickel EA, Timmermann A, Roessler M, Cremer S, Russo SG: Out-of-hospital airway management with the LMA CTrach-a prospective evaluation. *Resuscitation* 2008; 79:212-8

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In Reply:

We thank very much Xue *et al.*, for their interesting letter concerning our recently published article in *ANESTHESIOLOGY*.¹ The remarks and questions are important and need some clarifications. Concerning the patients with Cormack and Lehane class I or II, it is right that most often these patients are, and were in our series, easy to intubate. But sometimes, as outlined by Xue *et al.*, the ease of direct laryngoscopy is not synonymous with ease of tracheal intubation. We encountered a difficult intubation in only 15 patients without any specific causes for their initial intubation failure.

Concerning the use of a stylet, our algorithm did not require the use of this device. We think that the gum elastic bougie (GEB) is more efficient and less traumatic than a stylet. We do not totally agree with Xue *et al.* that when the speed of tracheal intubation is important, a stylet should always be used. To our knowledge, no high-evidence-level studies support this statement. In the few studies that compared the stylet to the GEB, the GEB was more efficient and allowed intubation with a shorter time than did the stylet in difficult intubations.^{2,3}

It is right that GEB is classically indicated only when the Cormack and Lehane class of laryngeal view is less than IV. However, we have already reported the potential interest of using GEB in patients with Cormack and Lehane class IV with a high intubation success rate.⁴

In our study, we used the reusable form of intubating Laryngeal Mask Airway (LMA) Fastrach™ (Laryngeal Mask Company Limited, San Diego, CA), not the intubating LMA CTrach™. We agree with Xue *et al.* that the intubat-

ing LMA CTrach™ is an excellent device and could have been used in our algorithm as a substitute for the intubating LMA Fastrach™. However, it has been reported that intubation through the intubating LMA CTrach™ needs more time than does intubation using the intubating LMA Fastrach™.⁵ Moreover, the cost effectiveness of the intubating LMA CTrach™ is questionable when compared with that of the intubating LMA Fastrach™.⁵

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References

- Combes X, Jabre P, Margenet A, Merle JC, Leroux B, Dru M, Lecarpentier E, Dhonneur G: Unanticipated difficult airway management in the prehospital emergency setting: Prospective validation of an algorithm. *ANESTHESIOLOGY* 2011; 114: 105-10
- Noguchi T, Koga K, Shiga Y, Shigematsu A: The gum elastic bougie eases tracheal intubation while applying cricoid pressure compared to a stylet. *Can J Anaesth* 2003; 50:712-7
- Gataure PS, Vaughan RS, Latto IP: Simulated difficult intubation. Comparison of the gum elastic bougie and the stylet. *Anaesthesia* 1996; 51:35-8
- Combes X, Dumerat M, Dhonneur G: Emergency gum elastic bougie-assisted tracheal intubation in four patients with upper airway distortion. *Can J Anaesth* 2004; 51:1022-4
- Liu EH, Goy RW, Lim Y, Chen FG: Success of tracheal intubation with intubating laryngeal mask airways: A randomized trial of the LMA Fastrach™ and LMA CTrach™. *ANESTHESIOLOGY* 2008; 108:621-6

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A Modified Difficult Airway Management Algorithm Incorporating Video Devices in Routine Anesthesia Practice

To the Editor:

The recent article of Amathieu *et al.*¹ that prospectively validated a modified difficult airway management algorithm incorporating video devices in routine anesthesia practice was of great interest to us. The authors should be congratulated for their excellent works in such a large cohort of anesthetized, paralyzed patients. However, there are several aspects of this study that should be clarified and discussed. We believe that such information would be helpful for others who would like to try this modified difficult airway management algorithm.

First, because authors did not provide the method of anesthesia induction used in this study, it was not clear whether the spontaneous breathing ceased when assessing facemask ventilation (FMV) before giving muscle relaxant in all patients with fewer than three adverse predictors. Moreover, if the amount of anesthetic is inadequate, airway spasm, a common cause of difficult FMV, can occur in response to irritation of the epiglottis and glottis from oropharyngeal or na-