Reply to the correspondence letter by Szarpak L et al. “Can Glidescope® videolaryngoscope be an alternative to direct laryngoscopy for child and infant tracheal intubation during chest compression?”

Antonio Rodríguez-Núñez · Julio Cortiñas-Díaz

Received: 8 January 2015 / Accepted: 16 January 2015 / Published online: 27 January 2015
© Springer-Verlag Berlin Heidelberg 2015

We appreciate the letter about our paper [4] and the results reported by Dr. Szarpak et al. Airway management in children is a challenge even for expert professionals [2, 5]. In cardiac arrest (CA), quality of cardiopulmonary resuscitation (CPR) is a main outcome factor. Chest compressions (CC) without interruptions as well as oxygenation and ventilation are recommended [3]. Although a standard advanced CPR procedure, tracheal intubation isn't a CPR goal, as there are evidences that it can be harmful [1]. Videolaryngoscopes have been developed to improve patient's safety and operator's success in airway management [5]. In case of CA in children and ongoing CC, videolaryngoscopes could offer advantage over classical laryngoscopes. However, up to date, the results of studies in manikins and children in different settings and professional backgrounds have not been conclusive [5].

We congratulate Dr. Szarpak and colleagues for their good results of first attempt intubation of children/infant manikins with Glidescope® by paramedics without prior experience, significantly higher than those reported (in manikins and patients) when the intubations were performed by physicians with different backgrounds [2, 4, 5]. It is possible that factors

like paramedics' prior training and abilities, the use of a mechanical device for CC in the child manikin, CC quality in the infant manikin, or other circumstances could explain this discrepancy. It is also noteworthy the shorter intubation time in the infant manikin, considering the infant's airway characteristics and that paramedics rarely assist infants in CA. Anyway, a rescue intubation should be completed as quickly as possible to minimize the negative consequences or airway management [5]. In this sense, the goal should not be the number of attempts but the time needed to achieve a confirmed tracheal intubation [4, 5]. Clearly, further studies are needed to obtain evidences on the role of videolaryngoscopes for intubation in children in CA.

References

1. Hasegawa K, Hiraide A, Chang Y, Brown DF (2013) Association of prehospital advanced airway management with neurologic outcome and survival in patients with out-of-hospital cardiac arrest. *JAMA* 309:257–266
2. Khandelwal N, Galgon RE, Ali M, Joffe AM (2014) Cardiac arrest is a predictor of difficult tracheal intubation independent of operator experience in hospitalized patients. *BMC Anesthesiol* 14:38
3. Meaney PA, Bobrow BJ, Mancini ME et al (2013) Cardiopulmonary resuscitation quality: improving cardiac resuscitation outcomes both inside and outside the hospital. A consensus statement from the American Heart Association. *Circulation* 128:417–435
4. Rodríguez-Núñez A, Moure-González J, Rodríguez-Blanco S et al (2014) Tracheal intubation of pediatric manikins during ongoing chest compressions. Does Glidescope® videolaryngoscope improve pediatric residents' performance? *Eur J Pediatr* 173:1387–1390
5. Sun Y, Lu Y, Huang Y, Jiang H (2014) Pediatric video laryngoscope versus direct laryngoscope: a meta-analysis of randomized controlled trials. *Paediatr Anaesth* 24:1056–1065

Communicated by Patrick Van Reempts

A. Rodríguez-Núñez (✉)
Pediatric Emergency and Critical Care Division, Pediatric Area,
Hospital Clínico Universitario de Santiago de Compostela, Galicia's
Public Health System (SERGAS), Santiago de Compostela, Spain
e-mail: Antonio.Rodriguez.Nunez@sergas.es

J. Cortiñas-Díaz
Department of Anesthesiology, Hospital Clínico Universitario de
Santiago de Compostela, Galicia's Public Health System (SERGAS),
Santiago de Compostela, Spain