Letter to Editor

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Amenable Intubation by Disposable Laryngoscope Blades

Saeid Pasban-Noghabi[1*], Ali Reza Moslem[2], Naser Godarzi[3]

[1]Department of Nursing Education, Student Research Committee, Gonabad University of Medical Sciences, Gonabad, Iran

[2]Department of Anesthesiology, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

[3]Department of Psychology, AJA University of Medical Sciences, Tehran, Iran

Corresponding author: *Saeid Pasban-Noghabi*
Address: Department of Nursing Education, Student Research Committee, Gonabad University of Medical Sciences, Gonabad, Iran. Tel: +98-915-6554507
e-mail: Pasban_saeid@yahoo.com

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Dear Editor

Endotracheal intubation may be required for every patient under general anesthesia (GA). Direct laryngoscopy is a routine method for endotracheal intubation in patients. Various blades are used for intubation depending on the choice of anesthetist and patient's conditions [1]. These laryngoscope blades can trigger infection among patients [1]. Nowadays it is believed that the standard method for sterilization of laryngoscope blades does not destroy all existing pathogens [2]. Using cheap disposable blades can eliminate the infection risk [2]. The main reason for using the disposable laryngoscope blades is to minimize the risk of infection transmission between the patients. Several cases of prion transfer between patients have been reported after blood transfusion, and it is well known that laryngoscopes can become contaminated with blood during use [3]. Therefore, single-use devices are an obvious solution to the problem. However, plastic blades do not have the same physical characteristics as metallic ones. Shape, size, light sources, and stiffness are different between blade types [4]. Most of the operators involved in this study believed that stiffness of the plastic blades was less than that of metallic ones and might be the main factor influencing the quality of laryngoscopy.

Modir and his colleagues [5] evaluated duration and success of intubation in a clinical trial involving 320 patients aged over 10 years. After induction of general anesthesia, endotracheal intubation was done using disposable plastic or metal reusable blades. Average time for reusable metal laryngoscope blades was 13.1±4.29 minutes and it was 16.4±8.1 minutes for disposable plastic blades (p<0.001) [5]. Using plastic disposable blades, outside the hospital emergency, reduced the success rates of first attempt intubation [6]. Amour *et al*. compared the disposable blades and metal reusable blades in rapid sequence induction (RSI). The findings showed that the disposable metal blades were more useful than reusable metal blades in RSI [7]. In another clinical study conducted in operation room (OR) the failure rate for RSI was 17% for disposable plastic blades and 3% for disposable metal blades [7].

In emergency department and out-of-hospital care, single use disposable plastic laryngoscope blades are now available and may be used in daily practice because of the strong suggestion that single-use devices should be used when mucosal contact occurs. However, the effectiveness of the 2 types of blade has not been compared in the emergency setting. If the plastic blades lead to a lower intubation success rate and make intubation more difficult, any theoretical

benefits of avoiding rare infectious diseases are to be negated.

In short, the metal disposable blades facilitated the intubation, whereas the plastic blades increase the time of intubation. Further studies on this subject provide more definitive information.

Conflict of Interest: None declared.

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