

Comments on use of a Parker Flex-Tip tube[®] to facilitate intubation with the Pentax-AWS[®]

Fu Shan Xue · Yu Jing Yuan · Jun Xiong ·
Qiang Wang · Xu Liao

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To the Editor:

The recent article of Ohmura et al. [1] regarding use of a Parker Flex-Tip tube[®] to facilitate intubation when the Pentax-AWS[®] (AWS) fails to reach the larynx was of great interest to us. Although they provided a useful method to improve success rate of intubation with the AWS, there are several aspects that have to be clarified.

In their case report, the PBlade tip of the AWS was not able to be advanced beneath the epiglottis but was inserted into the vallecula. The epiglottis was indirectly elevated, and the laryngeal exposure was approximately 80% of the glottic opening. Actually, the design of the AWS PBlade is to be inserted posterior to the epiglottis, directly elevating it out of the way (Miller-type approach) [2, 3]. Also, the target mark on the monitor is designated for a preformed, curved endotracheal tube (ETT) [4]. In this way, the curved ETT advanced from the guiding channel tends to travel forward for a short distance almost in line with and align with the glottis [2]. However, when the AWS PBlade is inserted into the vallecula (Macintosh-type approach), intubation often fails because of ETT impingement on the epiglottis [2]. According to our experience and the available literature, difficulty in inserting the PBlade tip into the posterior surface of the epiglottis really is a common troublesome problem during intubation with the AWS, particularly at patients with micrognathia, a short neck, or

limited head and neck movement. In patients with simulated restricted neck mobility, this issue had resulted in multiple intubation attempts in 42% of patients [3]. It is easily corrected by partially withdrawing the device, and with a subsequent scooping movement of the PBlade, lifting the epiglottis, and advancing the ETT into the trachea. A second solution is to insert a bougie through the ETT and into the trachea and then railroad the ETT over the bougie via the glottis.

In their mannequin study, the AWS PBlade was deliberately inserted into the vallecula (Macintosh-type approach). In this case, the epiglottis can indirectly be elevated by the AWS PBlade, and most of the glottic opening may be viewed on the monitor. This approach does not differ from the condition in which the AWS PBlade fails to reach the larynx; the latter occurs because the distance from the mouth to the larynx of the patient is longer than the designed length of the PBlade [4]. In this situation, the epiglottis cannot indirectly be left by the AWS PBlade, and the pendulous epiglottis may obstruct the laryngeal view and interfere with alignment of the ETT tip with the glottis. Based on the findings of this mannequin study, therefore, we believe it would be more appropriate to conclude that the use of the Flex-Tip tube allows for successful intubation when the AWS PBlade is inserted by a Macintosh-type approach.

One of the most important features of the AWS that facilitates intubation is a target mark on the monitor, which indicates the direction of travel of the ETT as it advances from the guiding channel [5]. Before advancing the ETT, the glottis must be positioned at the center of the target mark. In panels b and d of fig. 1 of this article, however, the glottis seems to be at the left side of the target mark, rather than the center of the target mark. We would like to know whether a different orientation relationship of the

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F. S. Xue (✉) · Y. J. Yuan · J. Xiong · Q. Wang · X. Liao
Department of Anesthesiology, Plastic Surgery Hospital,
Chinese Academy of Medical Sciences and Peking Union
Medical College, 33 Ba-Da-Chu Road, Shi-Jing-Shan District,
Beijing 100144, People's Republic of China
e-mail: fruitxue@yahoo.com.cn

target mark and the glottis is required when the PBlade tip of the AWS is positioned at the vallecula and a Parker Flex-Tip tube is used for the intubation.

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