

Performance of a Parker Flex-Tip tube[®] for intubation with the Pentax-AirwayScope[®]

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To the Editor:

In a small-sample randomized clinical study, Suzuki et al. [1] showed that when the Pentax-AirwayScope[®] (AWS) tip was inserted into the vallecula (Macintosh-type approach), the Parker Flex-Tip tube[®] (Parker tube) provided both a higher intubation success rate and a faster intubation time compared with a standard endotracheal tube (ETT). The findings of this study in humans confirm their conclusions in a previous manikin study [2]. However, there are several issues in this study that should be discussed and clarified.

First, selection of a standard ETT as the control in this study is not reasonable because it does not accord with design requirements of the AWS blade. The manufacturer's description specifies that the AWS tip is inserted behind the epiglottis (Miller-type approach) and the target mark must be positioned at the centre of the glottis. In this way, the curved standard ETT advanced from the guiding channel of the AWS blade tends to travel forward for a short distance almost in line and align with the glottis. However, if the AWS tip is inserted into the vallecula, as performed in this

study, the intubation often fails due to standard ETT impingement onto the epiglottis [3]. A manikin study shows that the Parker tube can improve the reliability of tube passage compared to a standard ETT during AWS-assisted intubation in a Miller-type approach [4]. To determine performance of the Parker tubes for intubation with the AWS, therefore, a more rational study design would be to compare the intubation success rate and intubation time using the AWS in the Miller- and Macintosh-type approaches. This study design has been used to compare performance of the straight reinforced tubes for intubation with the AWS [5].

Second, we noted that the intubation success rate in the Parker tube group only was 70 % on the first attempt and increased to 85 % on the second attempt. However, the author did not mention the orientation relationship of the target mark with the glottis. Was it different from the standard intubation technique with the AWS? Moreover, it would be interesting to know possible reasons of failed intubation with the Parker tube on the first attempt in as many as 30 % of patients, and the measures taken by the authors allowing them to achieve successful intubation on the second attempt in additional patients. These issues are useful for others who would like to try intubation with the Parker tube using the AWS.

Third, in their discussion, the authors stated that when combined with the Parker tube, the AWS can be used in both the Miller- and Macintosh-type approaches for intubation. This is not conclusive, because this study does not assess performance of the Parker tube for intubation using the AWS in a Miller-type approach. Moreover, even after two attempts, the intubation failure rate in the Parker tube group was still 15 %. Thus, we believe that large clinical studies are further needed to confirm the feasibility and usefulness of the Parker tube for intubation with the AWS.

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