Letters to Editor

Comment on a published article: Too much of anything is bad: An unusual case of a stuck endotracheal tube with deflated cuff

To the Editor,

We read with great interest the letter-to-the-editor by Panda and Karim highlighting an unusual case of difficult extubation. Indeed the folding of the cuff to from a peculiar ring toward the distal end of a modern endotracheal tube (ETT) is not reported. Although the authors did not ground a valid scientific explanation for it, they must be congratulated for the successful management of the case. Not uncommonly folding of the cuff to form a distal sleeve was a problem associated with multiple-use old red rubber tubes, but is seldom seen with single use PVC tube having low pressure high volume cuff. Thus, we contend that the unique shape of the cuff can be attributed more to an interplay of dynamic factors pertinent to the case in question than for merely to a chance, considering the following points:

1. In the published letter, since the trachea was intubated with a 7.0 mm ID PVC tube on second attempt, which too was passed snuggly, possibility of minor trauma and ensuing tracheal wall mucosal edema over time during the course of surgery cannot be ruled out in entirety as post-extubation flexible bronchoscopy was not carried. Moreover, in such a scenario, complete deflation of the cuff is difficult due to inhomogenous spread of the injected air in the cuff, with formation of miniscule air-locked pockets due to multi-point circumferential squeeze by the trachea

2. During the first attempt at extubation in such a tightly fitting ETT, with pull at the proximal end, there is an all-round counter tangential force by the trachea on the cuff leading to a prominent proximal-to-distal squeezing effect culminating in a fold of the cuff in a shape of ring with tiny amount of air, at the end, opposite to the direction of force, which desisted extubation. Similar distal-to-proximal stripping-squeezing effect by the constricting subglottic area which resulted in a proximal ring of cuff was described by Dutta et al. while intubating pediatric cases. We believe the complete deflation of the cuff occurred prior to the second extubation attempt with coalescing of all the air pocket at the distal cuff end consequent to the stripping-squeezing action effected in the first attempt

3. With a stuck and thermosoftened (intraoperative use) ETT, it is impossible to transmit the rotational force applied at the proximal end to the entire length of the tube and successfully achieve 180° turn as stated by the authors. Extrication of the tube was possible as a result of complete deflation of the cuff prior to second attempt, accompanied by pulling with a little more force resulting in trauma as evidenced by the presence of blood at distal cuff end.

To conclude, the attempt at extricating a stuck tube that is difficult-to-extubate, a hurried series of action with ensuing trauma and then explaining awkwardly should get replaced by patient on-the-table considerations on basis of scientific logic, would ensure patient safety.

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Conflicts of interest
There are no conflicts of interest.

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