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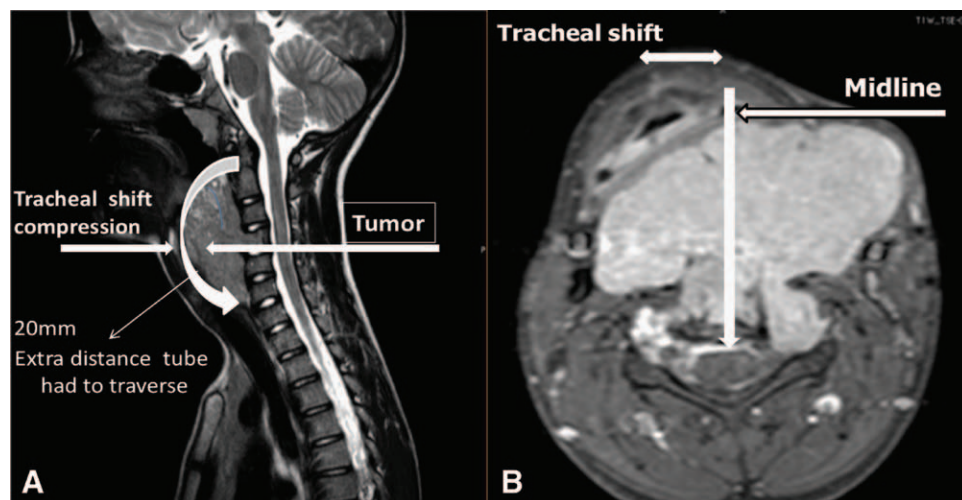
Airway Management in a Child with a Large Retropharyngeal Mass—A Lesson Learned

How Conventional Rules of Endotracheal Tube Fixation Can Be Deceptive

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WE report an interesting aspect of a difficult intubation in a 10-yr-old boy scheduled for excision of a retropharyngeal mass. As can be appreciated from the magnetic resonance imaging, there is a large retropharyngeal tumor shown in figure A, and the axial cut (fig. B) shows the tumor causing a significant anterior and lateral shift of trachea of approximately 20 mm. After induction of general anesthesia and testing that mask ventilation

would be possible, an endotracheal tube with an ID of 7 mm was inserted using direct laryngoscopy. It was inserted up to 17 cm at the incisors as per the calculation $12 + \text{age (yr)}/2$.¹ The patient was positioned with a slight extension of the neck, which may have caused the dislocation of the tube, which was quickly diagnosed by the sudden disappearance of the end-tidal carbon dioxide waveform. The patient was reintubated using another endotracheal tube and advanced 2 cm more to 19 cm, which resolved the issue. This case is being reported to highlight the possibility of applying “calculations” to decide the length of the endotracheal tube to be inserted for correct tube placement. In this case, a further allowance of 2–3 cm should have been made, considering the extra 20-mm length that the tube had to traverse due to the curvature of the tumor, as shown in figure A. We would also like to highlight the fact that in patients with significant tracheal deviation, the tube position should be confirmed with fiberoptic bronchoscopy, fluoroscopy or x-ray films.^{2,3}

References

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