An Unusual Cause of Endotracheal Tube Obstruction

To the Editor:—A 1,300-g neonate requiring ventilatory support was intubated with a 2.5-mm endotracheal tube containing a new disposable, plastic-sheathed stylet. Upon removing the stylet with some difficulty and attaching the endotracheal tube to the breathing circuit, ventilation was attempted but impossible. Immediate laryngoscopy confirmed correct position of the tube through the larynx. Rapid transillumination of both lung fields revealed no evidence of tension pneumothorax. Replacement with a new endotracheal tube provided effective ventilation.

Examination of the first tube revealed the lumen to be clogged by the distal sheared-off portion of the plastic sheath surrounding the metal stylette (fig. 1). The stylet was a new, unused 6-French SatinSlip™ intubating stylette with lubrication recommended for tracheal tube sizes 2.5–4.5 mm. The sheathed stylet tube fitting was snug, and we suggest caution be used with sheathed stylets used for small lumen endotracheal tubes, with unsheathed stylets or no stylets being the other option.

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FIG. 1. Endotracheal tube and stylet showing the sheared-off portion of the plastic sheath surrounding the metal stylet.

A Problem with Metal Endotracheal Tubes and Plastic-coated Stylets

To the Editor:—Metal endotracheal tubes are used during laser endoscopic surgery to reduce the risk of airway fires. These tubes are flexible and generally require the use of a stylet to facilitate intubation. Recently, we have become aware of a problem that can occur when plastic-coated stylets are used with metal endotracheal tubes. The presence of bends or sharp curves in the stylet when inserted into the metal tube may not only make it difficult to remove the stylet at the appropriate time, but, more importantly, during stylet removal, pieces of the plastic coating may be scraped from the surface by the metal edges of the inside of the tube. These plastic pieces may be forced into the airways during positive-pressure ventilation and act as foreign bodies in the lungs. This problem can be avoided by making sure that there are no sharp bends or kinks in the stylet before insertion into the metal endotracheal tube and by testing the stylet for easy removal from the tube.

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