INTRODUCTION

Tracheobronchial foreign bodies in extremely premature neonates present a challenge in otolaryngology. We present a case of a 26-week gestation, 640 gram neonate found to have a sheared off sheath from an intubating stylet in the airway, with review of instrumentation and planning strategies to minimize risk to the infant. To our knowledge, this is the smallest and youngest neonate reported to undergo this procedure.

METHODS

Case report and literature review.

CASE REPORT (continued)

A 0-Miller neonatal laryngoscope was used to perform direct laryngoscopy with note of the ETT going through the vocal cords, but no foreign body visualized. The ETT was removed under laryngoscopic visualization, and approximately 1 cm of the sheath was seen protruding through the glottis. This was removed using a cupped biopsy forceps, and appeared to be intact. Rigid bronchoscopy was then performed with a 2.5 Storz bronchoscope, down to the segmental bronchi, with no perforations, active bleeding, or remaining foreign body noted; the right mainstem bronchus was noted to be quite dilated, however (Figure 3). The pediatric surgery team was prepared for thoracotomy and bronchotomy if needed. The patient was reintubated with a 2.5 ETT and successfully extubated two days after foreign body removal to non-invasive positive pressure ventilation. The infant was doing well at last follow-up.

DISCUSSION (continued)

A literature review revealed several case reports of iatrogenic airway foreign body in this patient population, with management including bronchoscopic versus fluoroscopic guided retrieval 1, 2. Preoperative planning and equipment setup in these cases are essential with appropriately-sized laryngoscopes, various retrieval instruments, and appropriately-sized bronchoscopes available at a moment’s notice (Figure 2). It is important to be prepared to perform tracheostomy for access, if unsuccessful endoscopically, and to have pediatric surgery available for thoracotomy and bronchotomy if needed. Airway foreign bodies are highly unusual occurrences in neonatal intensive care units, and are typically iatrogenic in nature. Early identification and multidisciplinary planning, including referral to an appropriate institution if necessary, is key to successful removal with minimized mortality and morbidity to the infant. It is imperative to be knowledgeable of endoscopic equipment available in one’s facility in the event of an aerodigestive foreign body in this fragile population, and to develop appropriate alternative treatment plans if unsuccessful.

REFERENCES