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Laryngeal Papillomatosis

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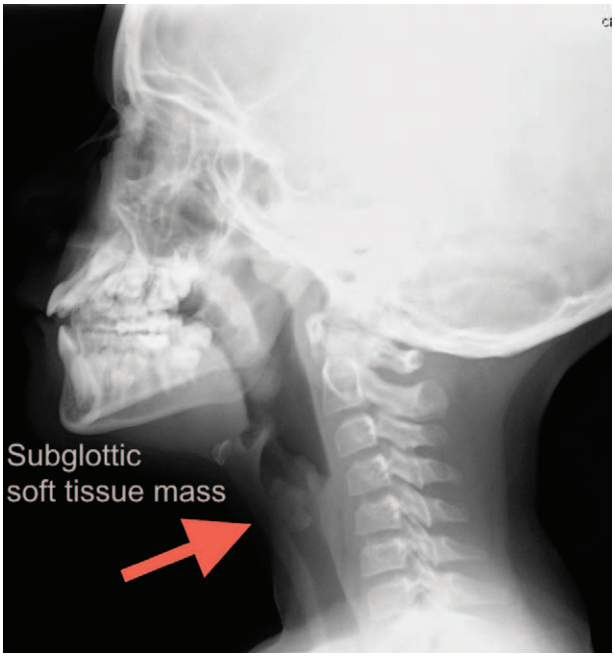

LARYNGEAL papillomatosis, the most common benign neoplasm of the pediatric larynx, is often initially misdiagnosed by pediatricians as asthma, croup, or tracheomalacia.[1,2] Definitive diagnosis may not occur before an age of more than 2 yr,[1] at which time the lesions may grow significantly and present to the anesthesiologist as significant airway obstruction.[1,2]

A 9-yr-old girl weighing 33 kg, born at 28 weeks gestation, with a history of laryngomalacia and "almost no voice since birth," presented to our hospital with difficulty breathing for evaluation and treatment. On examination, the patient was in no distress with a melodic tone on inspiration and exhalation. Her voice was soft and hoarse, and her saturation on room air was 99%. According to her mother, her breathing was very noisy when upset. Neck tissue radiograph (fig.) showed a soft tissue mass within the subglottic airway/larynx. Bedside flexible bronchoscopy revealed a vocal cord papilloma intermittently obstructing the airway.

The patient was at high risk for complete airway obstruction on induction.[2] After a thorough discussion with the Otorhinolaryngologist regarding our plan for spontaneous mask ventilation induction and immediate availability of a rigid bronchoscope and tracheostomy kit, the patient was brought to the operating room. She received 0.5 mg IV midazolam premedication (0.015 mg/kg), dosed judiciously to provide anxiolysis and a smooth respiratory pattern while avoiding respiratory depression,[3] and an inhalational sevoflurane induction proceeded as planned. A video of the obstructing, ball-valving papilloma was taken during direct laryngoscopy (see video, Supplemental Digital Content 1, http://links.lww.com/ALN/A965) during which time the patient was able to maintain saturations. A 4.0 cuffed tracheal tube was then used to uneventfully secure the airway for initial microdebridement of the lesion.

Competing Interests

The authors declare no competing interests.

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References

1. Zacharisen MC, Conley SF: Recurrent respiratory papillomatosis in children: Masquerader of common respiratory diseases. Pediatrics 2006; 118:1925–31
2. Dalmeida RE, Mayhew JF, Driscoll B, McLaughlin R: Total airway obstruction by papillomas during induction of general anesthesia. Anesth Analg 1996; 83:1332–4
3. Zur KB, Litman RS: Pediatric airway foreign body retrieval and anesthetic perspectives. Pediatric Anesthesia 2009; 19s1:109–17

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