Laryngomalacia with Epiglottic Prolapse Obscuring the Laryngeal Inlet

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A 8-week-old girl with congenital inspiratory stridor was listed for diagnostic laryngotraceoscopy. Flexible laryngoscopy was performed with intravenous propofol and sufentanil sedation. Spontaneous ventilation was assisted via face mask. Laryngomalacia with a retroflexed epiglottis (fig. A), epiglottic prolapse (fig. B), and a completely obstructed larynx in full inspiration (fig. C) was seen (see Supplemental Digital Content 1, http://links.lww.com/ALN/B253, which is the video from which the figure was taken).

Laryngomalacia is defined as the collapse of supraglottic structures during inspiration with resulting upper airway obstruction.1 It is the most common cause of stridor in neonates and children. Most cases of laryngomalacia are self-limiting, rarely persist after 24 months, and do not require therapeutic intervention. Only a small number of children with severe symptomatic disease, e.g., hypoxemia, apnea, or failure to thrive, require surgical treatment.2

Definitive diagnosis of laryngomalacia can be confirmed with flexible fiberoptic laryngoscopy. Obstruction may result from collapse of redundant arytenoid mucosa, shortened aryepiglottic folds, a retroflexed floppy epiglottis, or a combined collapse.2

Airway management includes chin lift, jaw thrust, and continuous positive airway pressure, but difficulties with forced mask ventilation1 are reported due to a worsening obstruction with increased pharyngeal pressures. Therefore, gentle mask ventilation avoiding high inspiratory pressure is advisable. An oropharyngeal airway may further displace the prolapsing epiglottis and is not recommended.1 Intubation may be extremely difficult as the epiglottis might be pushed against the glottis with the tip of the laryngoscope obscuring almost completely the larynx.3 The use of a rigid bronchoscope in these cases should be considered.3

Competing Interests
The authors declare no competing interests.

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