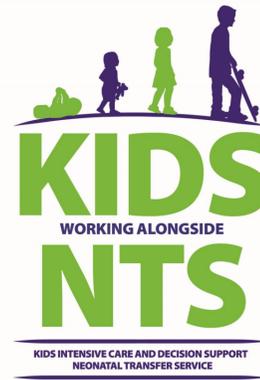


# “HELP! CAN’T INTUBATE” - An Unusual Airway emergency

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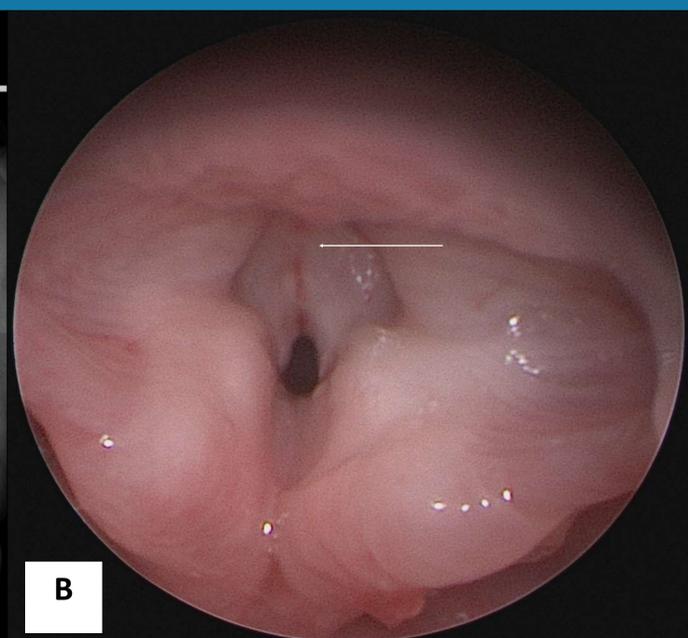
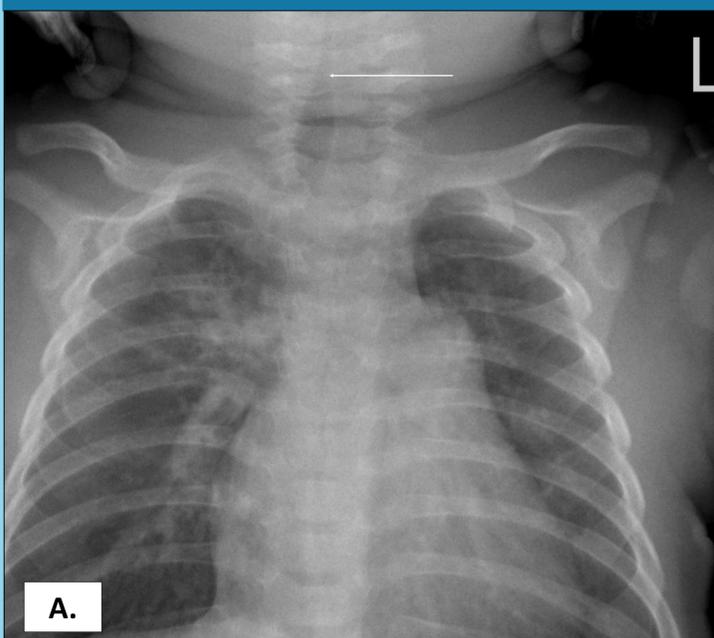
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## CASE REPORT

A three-month-old boy presented with respiratory arrest during a coryzal illness. Parents reported intermittent episodes of noisy and difficult breathing with chest indrawing since birth.

Recurrent episodes of apnoea and seizures ensued after initial resuscitation. Chest x-ray revealed the steeple sign<sup>1</sup> suggesting upper airway narrowing. Significant glottic narrowing due to a laryngeal web led to unsuccessful attempts of endotracheal intubation despite the use of video laryngoscope by experienced professionals.

Teleconferencing facilities enabled immediate multidisciplinary team review of images at the tertiary centre leading to a swift decision for emergency high-risk transfer directly to the operating theatre by the retrieval team. Airway was maintained with a supra-glottic airway device in-transit until endoscopic division of laryngeal web and dilatation of subglottic stenosis<sup>2</sup>. Intravenous 10% calcium gluconate was administered to treat severe refractory hypocalcaemia (ionised calcium 0.68 mmol/L). DiGeorge syndrome was suspected based on the findings of laryngeal web and hypoparathyroidism, which was confirmed genetically (de novo microdeletion at 22q11.2).



A. Chest X-ray AP view showing Steeple sign: tapering of the upper end of Trachea

B. Anterior laryngeal web seen on endoscopy

We report a case with exacerbation of airway narrowing due to hypocalcaemia in the setting of congenitally atretic airway to highlight the need for early evaluation for hypocalcaemia in new-borns with stridor. Incidence of airway anomalies with Di George syndrome can be as high as 50%<sup>3</sup>. Additionally we highlight the expertise and specialist care that teleconferencing can bring to the bedside to make time-critical decisions.

### References:

1. Huang CC, Shih SL. Images in clinical medicine. Steeple sign of croup. N Engl J Med. 2012 Jul 5;367(1):66. doi: 10.1056/NEJMicm1113937. PMID: 22762320.
- 2 Lawlor CM. Laryngeal Web in the Pediatric Population. Evaluation and management. 2020 Otolaryngol Head Neck Surg. 2020 Feb.
3. Jones JW, Tracy M, Perryman M, Arganbright JM. Airway Anomalies in Patients With 22q11.2 Deletion Syndrome: A 5-Year Review. Ann Otol Rhinol Laryngol. 2018 Jun;127(6):384-389. doi: 10.1177/0003489418771711. Epub 2018 May 7. PMID: 29732908

