A Case of Worsening Stridor in a Neonate

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A Case of Worsening Stridor in a Neonate

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Workup and Hospital Course:
- Initial laboratory investigation revealed normal CBC, electrolytes, and liver enzymes.
- Her TSH had normalized (5.05 µIU/ml).
- A noncontrast CT of the neck demonstrated a hyperdense mass at the base of the tongue consistent with an ectopic, lingual thyroid gland that extended into her proximal airway (Figure).
- During the course of her hospitalization, she was provided supplemental oxygen and positioning for feedings that significantly improved her respiratory symptoms and weight gain before discharge to home with close follow-up.

Pathophysiology:
- The lingual thyroid gland begins to develop during the 3rd to 4th week of gestation from tissue located at the base of the tongue. During normal development, the fetal lingual thyroid tissue descends along an anterior and midline tract through the thyroid duct to its final position at the base of the neck. Ectopic thyroid tissue results from a complete or partial failure of descent of the thyroid gland during fetal development. Ectopic thyroid tissue can occur anywhere in the oropharynx along the natural path of thyroid descent, with varying degrees of airway impingement and symptoms.2

The Condition: Although ‘noisy breathing’ is common in neonates due to generally benign conditions, such as laryngotracheomalacia, acute or worsening stridor is a potentially life-threatening condition and warrants immediate assessment. Most cases of neonatal stridor are due to congenital lesions of the oropharynx and/or airway, although acquired conditions, such as infections, are less common at this age. Ectopic thyroid tissue is a recognized cause of airway obstruction in infants and should be considered in any neonate or infant with stridor.1,3

References:

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Panel B, axial view. White arrows denote lingual thyroid.  Figure.