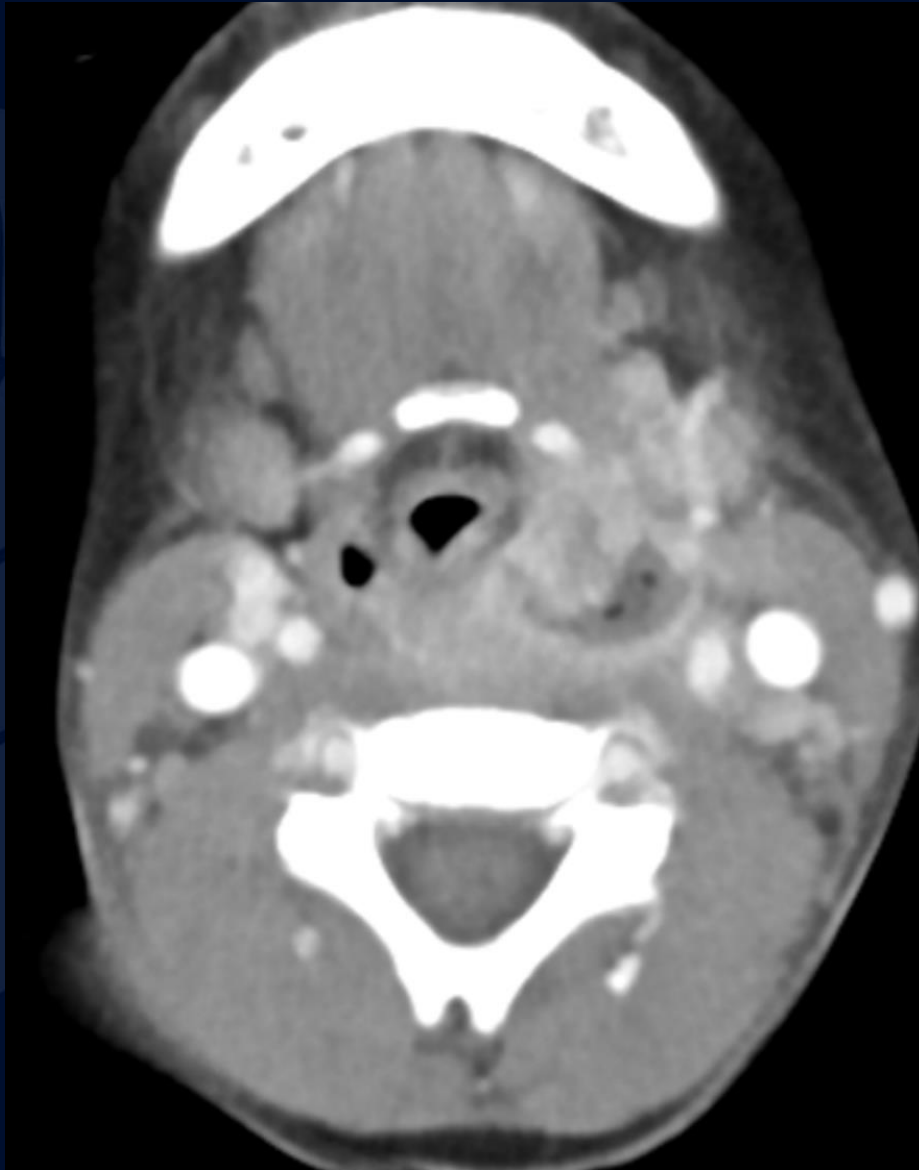
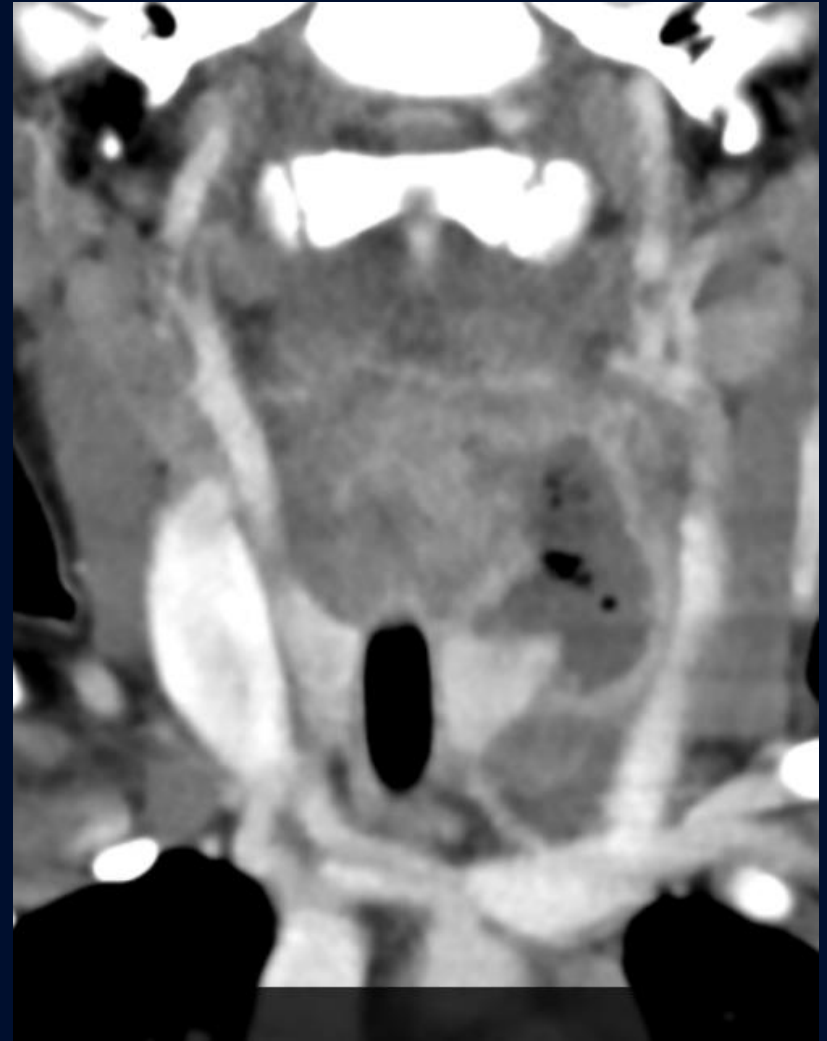


# 8-year-old boy with fever and odynophagia

John J. DeBevits IV, MD

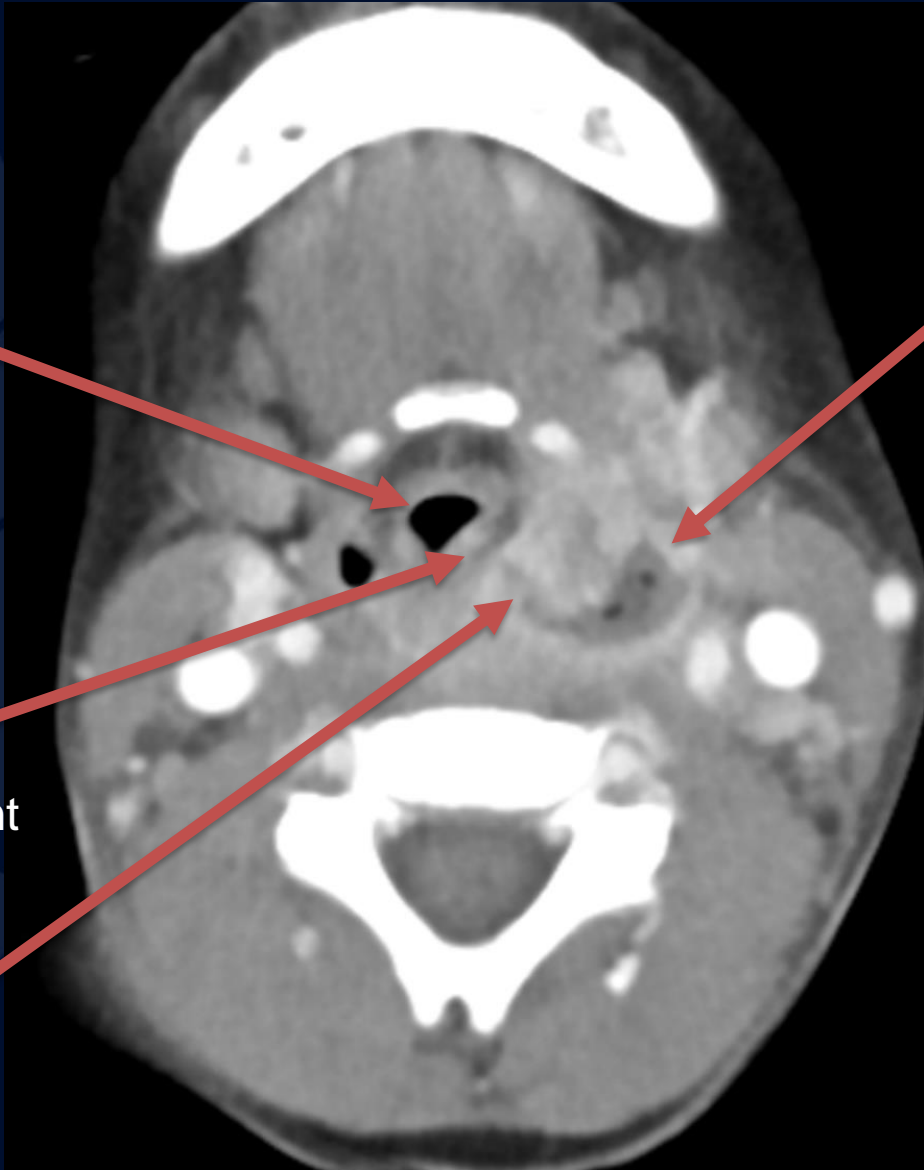






?

# Infected 4<sup>th</sup> branchial cleft cyst



Mild tracheal deviation

Abscess

Piriform sinus effacement

?Fistula



- Note how the abscess is intimately involved with the thyroid gland.
- Again we see mild tracheal deviation to the right



# 4<sup>th</sup> branchial cleft cyst

- Very rare lesions, accounting for only 1-4% of all branchial cleft anomalies
- Typically present in early childhood, typically secondary to superimposed acute, suppurative thyroiditis or recurrent abscess formation.
- Almost always involves the **upper left thyroid lobe**
- Commonly results in fistulous connection with the piriform sinus
- The course of the cyst may extend inferiorly and wrap around the aortic arch on the left or subclavian artery from the right



# 4<sup>th</sup> branchial cleft cyst

## Imaging findings

- No pathognomonic findings
- Requires solid understanding of the types of arch malformations and their locations
- May be helpful to perform a barium swallow combined with a CT neck study after the barium swallow
- Dx should be considered in a pt with persistent cyst or fistula in the head and neck and correlate this with appropriate clinical history and exam

## Differential diagnosis

- Cervical thymic cyst
- Lymphatic malformation
- Thyroglossal duct cyst
- Thyroid colloid cyst
- Abscess

# References

- <http://appliedradiology.com/articles/congenital-cystic-lesions-of-the-neck/congenital-cystic-lesions-of-the-neck.aspx>