Obstruction Location, based on Sridor

- →Inspiratory stridor = extrathoracic obstruction
- → Expiratory stridor = intrathoracic obstruction
- →Biphasic stridor = fixed obstruction (doesn't collapse or narrow airways upon inspiration/ expiration)

Stridor in a Child

(Usually inspiratory noise, can be expiratory; high or low pitched) When does child have stridor? How long has it been happening?

Hemangioma (<5%)

Subglottic stenosis (20%)

→ Fixed obstruction so

biphasic stridor

→ Can be acquired (from

intubation) or congenital.

Present since birth/infancy

→All cause respiratory distress

Not present since infancy

Stridor Red Flags:

→ Present at birth → Biphasic → Abnormal Voice → Poor feeding, growth (If Red Flags present, investigate with Laryngoscope +/- bronchoscope)

Congenital **Tracheal Lesions**

Anterior trachea

compression

(35%)

→Expiratory

stridor

Congenital **Larynx Lesions**

Non-Acute onset

Acute Onset

Afebrile

Croup or

Atypical Croup

- → Sudden night-time Barking cough, coryza, hoarseness
- →Commonly a viral inf'n: parainfluenza (in the fall)
- →Typically: 3m-3yr old
- →Atypical: <3mo, >6yr →Tx: nebulized
- epinephrine (to dilate airways), systemic steroids

→ Child Looks sick

Febrile

Vascular sling (9%)

Tracheomalacia

(45%)

(Floppy baby

cartilage)

→Aorta or pulm. arteries wrapped around trachea \rightarrow Expiratory

stridor

Laryngomalacia (60%)

Laryngeal

Web (<5%)

"congenital laryngeal stridor"

- → Collapse of supra-glottic airway during Inspiration (baby cartilage floppier than adults')
- → Most common congenital larynx abnormality.
- → Worse if crying, feeding, URTI, sleeping on back
- → Better when prone, calm
- → Presents 3-4wk after birth, most often at 3mo. →Not progressive, spont. resolution in 12-18 mo
 - → May or may not cause resp distress
- →Tx: treat GERD (makes laryngomalacia worse). Watchful waiting for mild cases, or refer for surgery if moderate/severe (apnea, cyanosis, inadequate sleep, FTT)

Vocal Cord Dysfunction (13%)

- →Inspiratory stridor
- → Can be congenital neurological vocal cord paralysis (uni or bilateral)
- →Or can be acquired: s/e of cardiac surgery

Bacterial tracheitis

- → Tracheal infection by S aureus, Grp A Strep, or Strep pneumo.
 - →Usually post-viral infection
 - →1-8 yrs old
 - → Muffled voice
- →Wants to cough, but too painful (trachea too tender)
- →Tx: emergent airway stabilization,
- NPO, analgesia (↓ pain and allow kid to cough), antibiotics

Epiglottitis

→ Epiglottis Infection by Hemophilus *influenzae* type B in non-immunized child (rare if immunized)

- →Quiet child In "sniffing position": head extended forward + up, to open airway maximally
- → Drooling due to pain from swallowing
- →Tx: emergent airway stabilization, antibiotics

Common features of these congenital lesions:

- → Present in the neonatal period + progressive
 - →interferes with feeding, sleeping
- → Associated with poor growth and other congenital abnormalities

→From HPV infection

Papilloma

Mononucleosis

Abscess:

→ Peri-tonsillar or retropharyngeal.