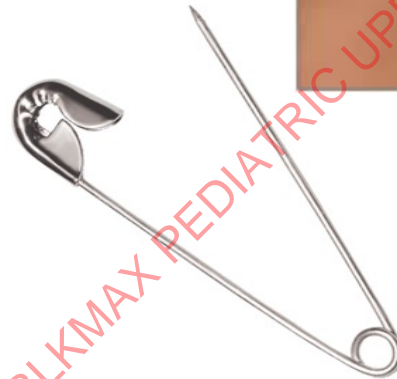




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Foreign Bodies in Children



Presenter - Dr Naresh Lal (Senior Consultant PICU)
Panelists - Dr Ravi Bhardwaj (Paed Gastroenterology)
- Dr Ankit Parakh (Paed Pulmonology)
- Dr Neha Sood (ENT)

- ✦ **Mostly in children between 6 months and 3 years of age**
- ✦ 98% ingestions accidental
- ✦ Common home articles- coins, toys, magnets, batteries and seeds
- ✦ Oral ingested FB are far more common than aspirated FB



❖ Which are the high risk foreign bodies?



❖ What are the signs and symptoms of FB ingestion/inhalation?



- ❖ **How do you suspect/diagnose FB in children ?**
- ❖ **Radiolucent vs Radio-opaque FB diagnosis ?**
- ❖ **Indications for CT?**



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Oral FB

FB ingestion



Case 1



- 8yr boy with accidental coin ingestion
- Stable
- No respiratory distress
- Normal sats



- Repeat xray at our centre

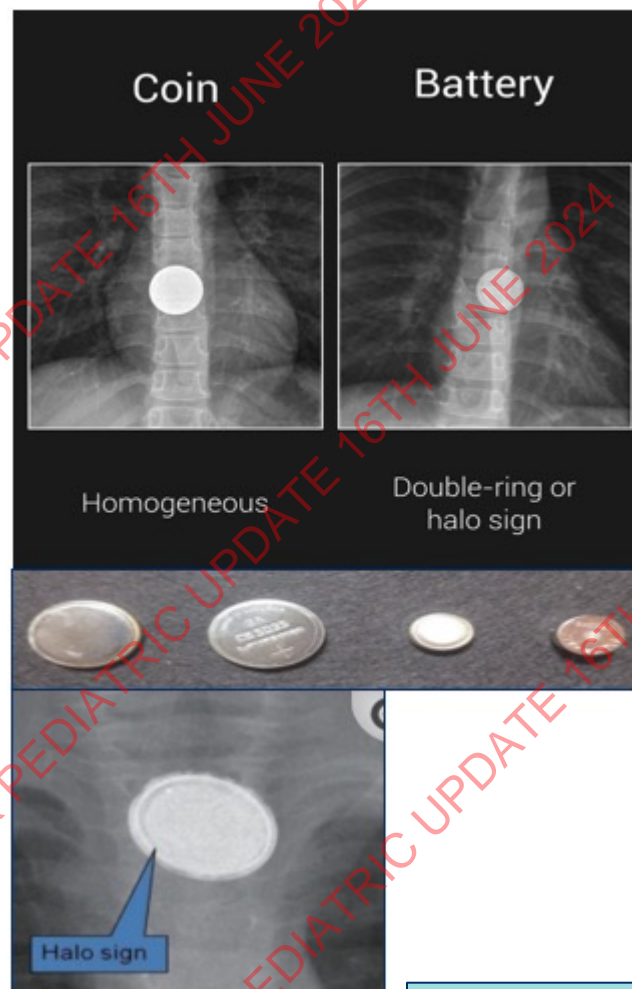
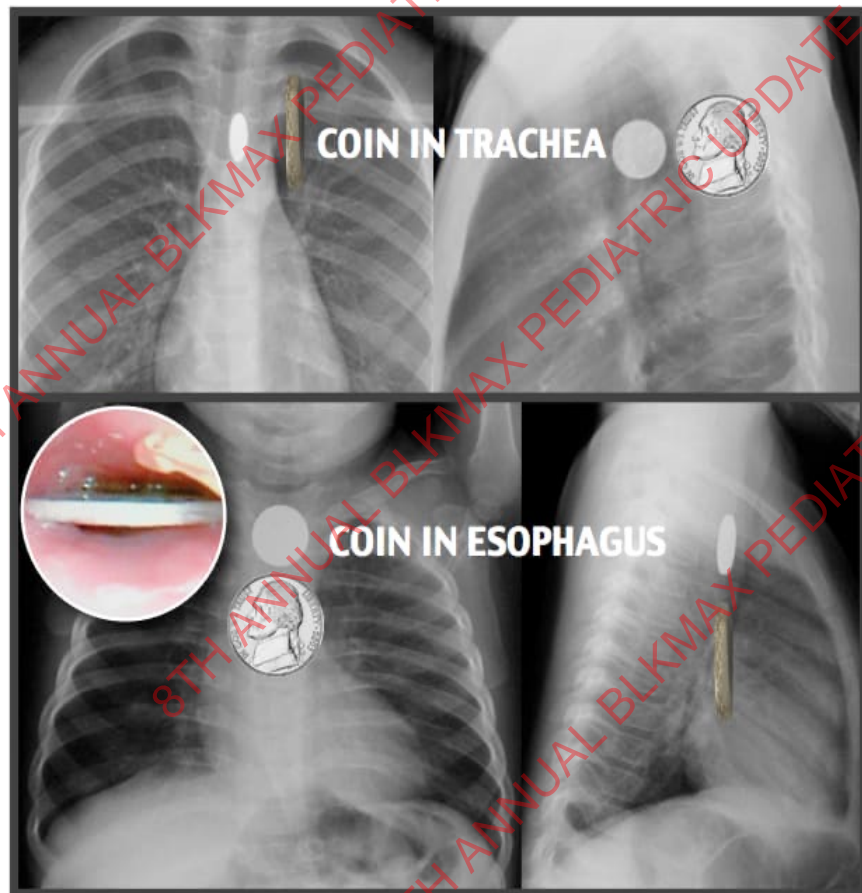
- ❖ **Type of FB and its management?**
- ❖ **Indication for endoscopic removal ?**



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Chest Xray

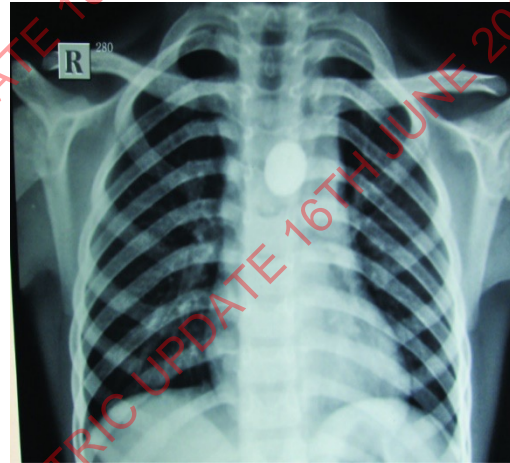


- Esophageal coins in coronal plane
- Tracheal coins in sagittal plane

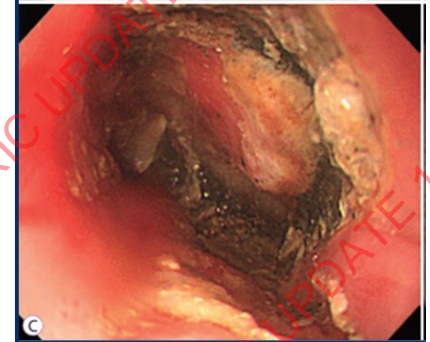
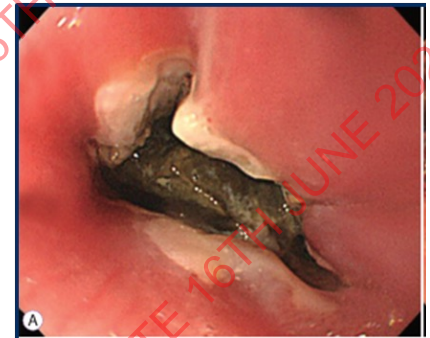
Halo sign of BB



- ❖ 4yr old child with c/o of irritability and unexplained drooling
- ❖ Playing with toy 4hr back
- ❖ Battery missing in toy

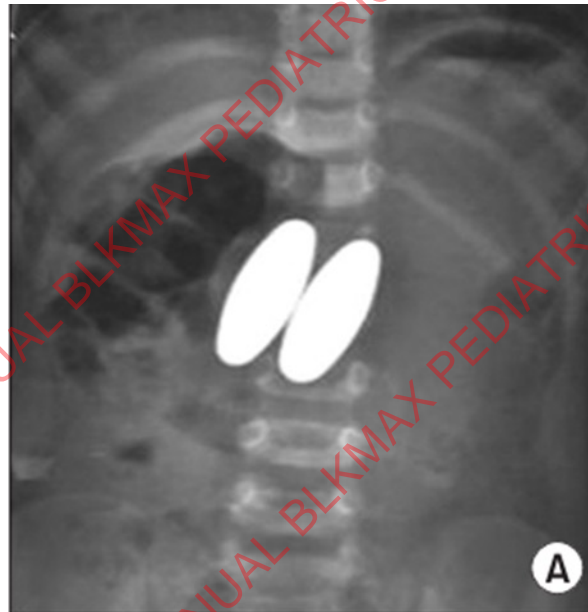


- ❖ **Why is BB dangerous?**
- ❖ **Any role of antacids/honey at home?**
- ❖ **Further management?**





- ✱ A 3-year-old boy was brought to ER by his mother
- ✱ He is **playful and smiling**
- ✱ Elder sibling saw him swallow two small pieces from a magnetic building set
- ✱ There is no history of choking or distress.
- ✱ **Radiography reveals two small rodlike objects in his stomach.**





- ✦ 4-year-old boy with **acute colicky pain abdomen** of 2 days duration with **vomiting and not passed stools**.
- ✦ On Ex: Febrile with **lower abdomen tenderness in rt iliac fossa**.
- ✦ USG abdomen- Hyperechoic structure in the central abdomen with free fluid.
- ✦ Xray abdomen done



- ❖ **Complications associated with magnetic FB?**
- ❖ **Management of magnetic FB?**



- ❖ Emergency laprotomy done
- ❖ Small bowel perforation with enteroenteric fistula
- ❖ Child improved with post op care and discharged on 10th post op day



- ✦ 5yr old male child with **fever, loose stools and abdominal distension for 3 days.**
- ✦ H/o meat ingestion in dinner 3 days back
- ✦ Xray –free air in peritoneum
- ✦ CT- appendiceal or ileal perforation



❖ Management of sharp FB? ❖ Conservative vs surgical

- Exploratory laparotomy done
- **A sharp foreign body was found perforating the ileum**
- Primary repair was done after removal of the foreign body.

Foreign body-associated intestinal perforation



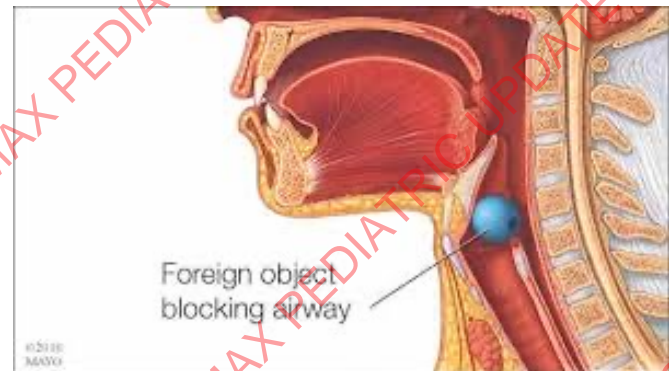
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FB in ENT



- ❖ What are the most common foreign bodies in ENT ?
- ❖ Which are the high risk FB in ENT?
- ❖ What are the most common symptoms of FB in ENT?



❖ What techniques are used to remove FB from ENT?

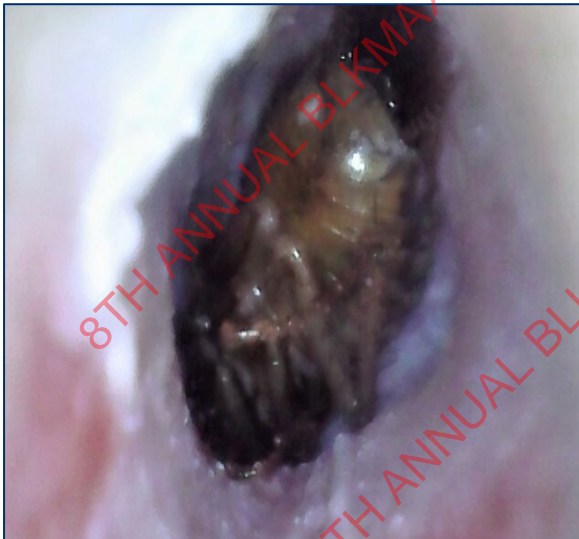


Figure 3: nasal foreign body removal technique using a right-angled hook





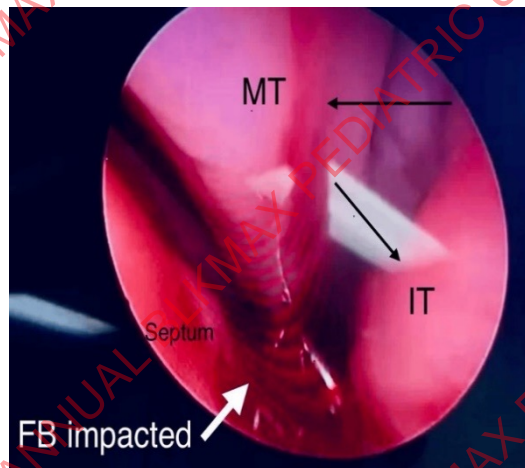
- ❖ 7 yr old development delay , CP
- ❖ Intense pruritis in rt ear with pain
- ❖ Ear ex- done by ENT team



❖ **Management of insect FB in ear ?**

- A 5yr old male child with one day h/o of nasal discharge, foul smell, and pain in the left nostril.
- No FB visible in the nasal cavity

- ❖ Should we still suspect FB
- ❖ Role of imaging in diagnosis ?





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Case 8



❖ 14yr girl with ear pain



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FB in the airway

FB asphyxiation

- ❖ Life-threatening event causing accidental death
- ❖ **What are the signs and symptoms of airway FB in children ?**
- ❖ **How do suspect and diagnose airway FB?**



FB in the airway

History

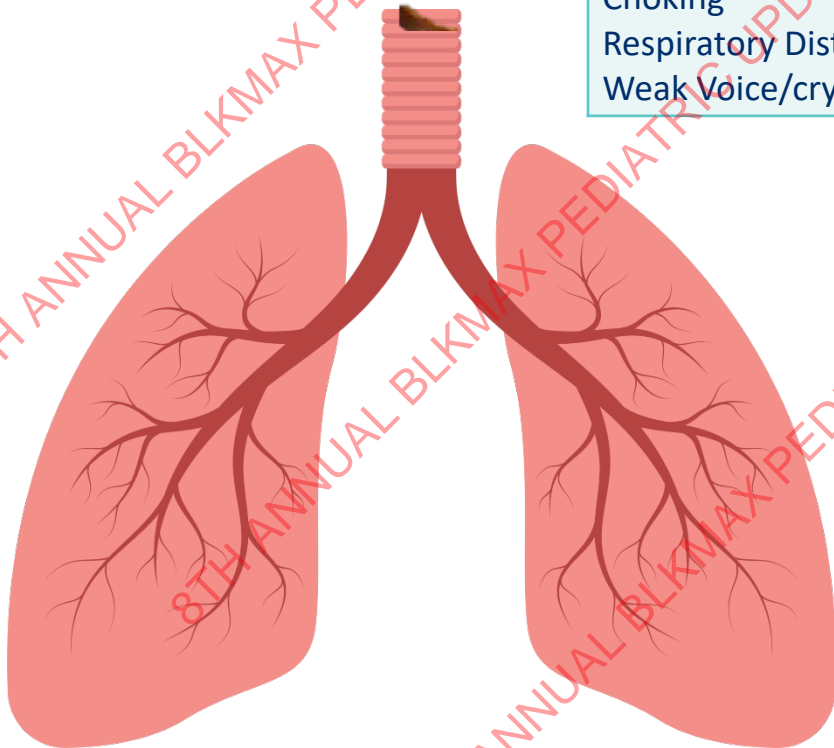
Aspiration
Choking
Respiratory Distress
Weak Voice/cry

Examination

Stridor
Respiratory Distress

Radiology

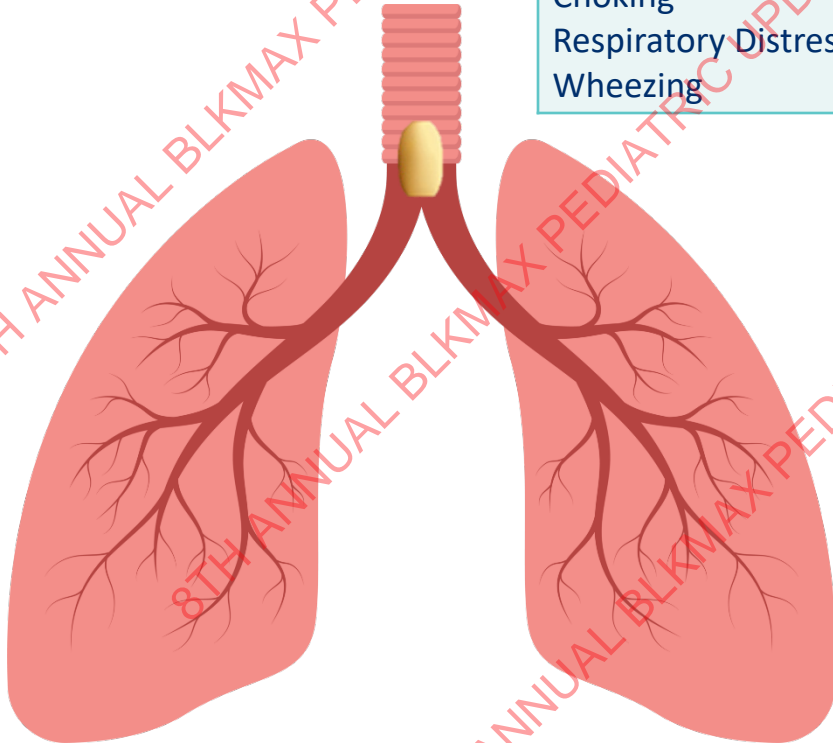
Normal



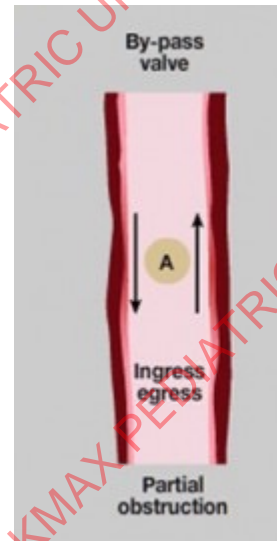
Foreign Body- SUBGLOTTIS

FB in the airway

History	Examination	Radiology
Aspiration Choking Respiratory Distress Wheezing	Stridor Monophonic Wheezing Respiratory Distress	Mostly Normal Xrays



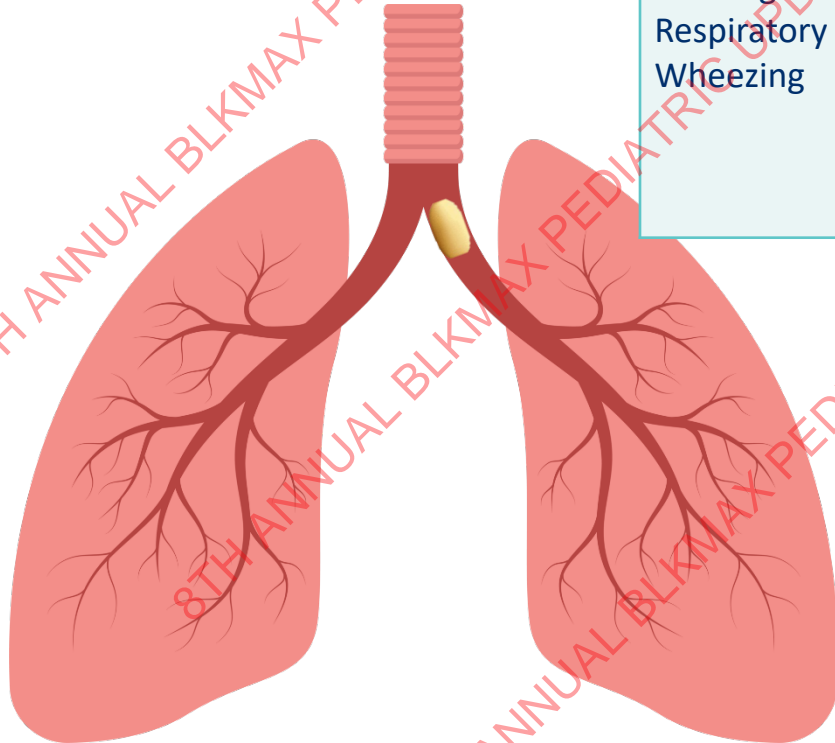
Foreign Body- TRACHEA



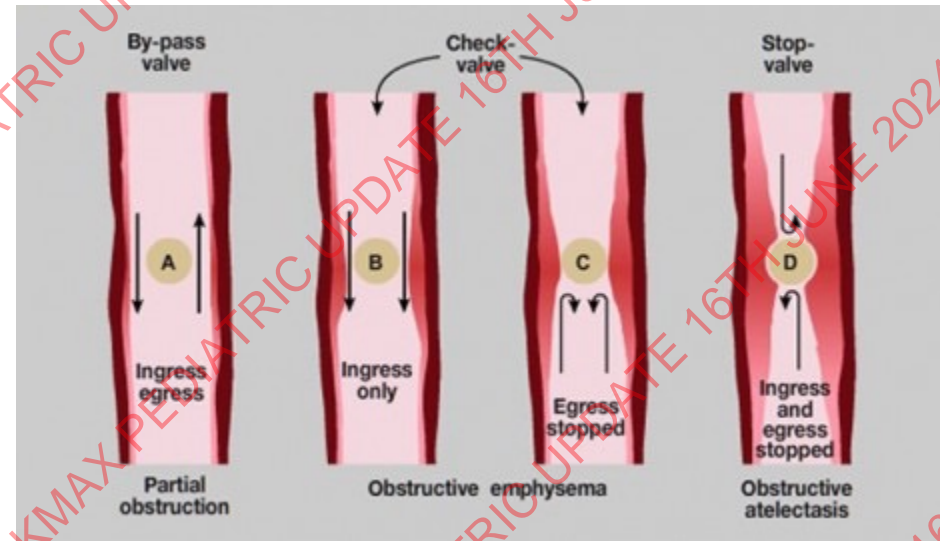


FB in the airway

Foreign Body- BRONCHUS



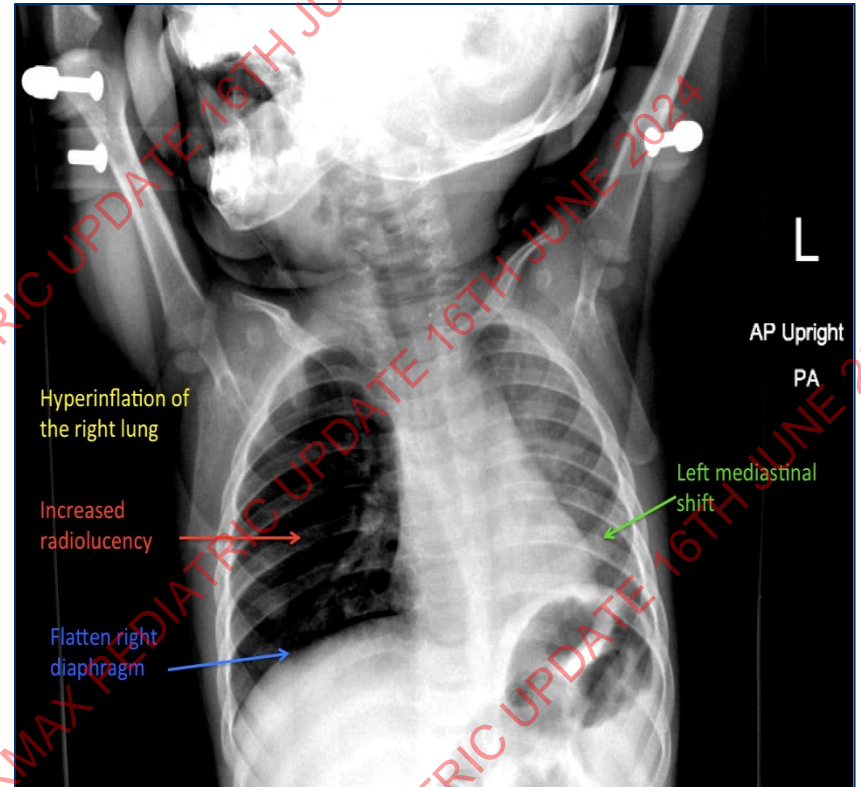
History	Examination	Radiology
Aspiration Choking Respiratory Distress Wheezing	Stridor Respiratory Distress Reduced Air-entry Unilateral Monophonic Wheezing	Ipsilateral Hyperinflation Collapse Mediastinal shift Consolidation Pneumothorax



The triad of wheezing, paroxysmal cough and decreased air entry, considered highly suggestive of FB aspiration

❖ **CXR**

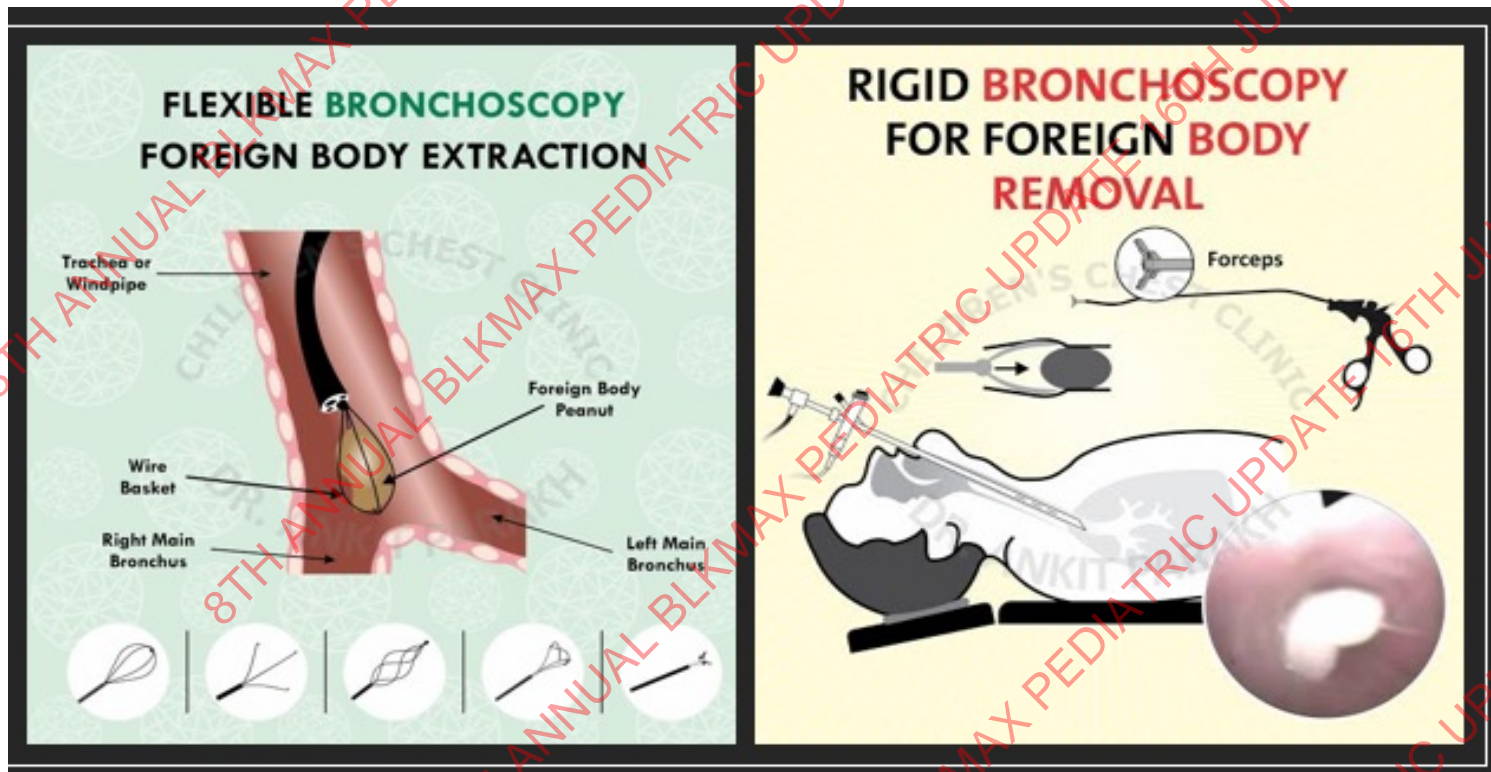
❖ **Need for CT scan ?**





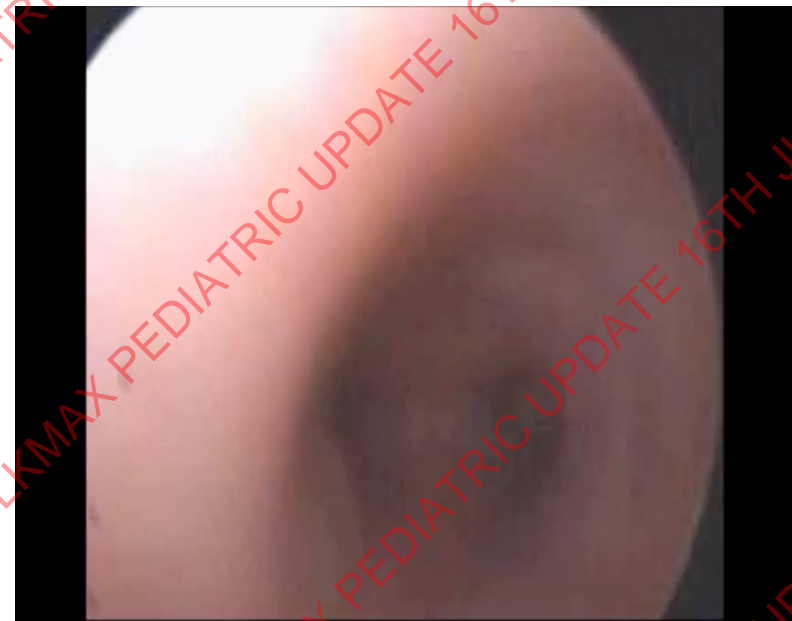
- ❖ Secure the airway first if medical emergency
- ❖ Do not distress the child
- ❖ Plan for bronchoscopic removal

Which modality is better –FB vs RB

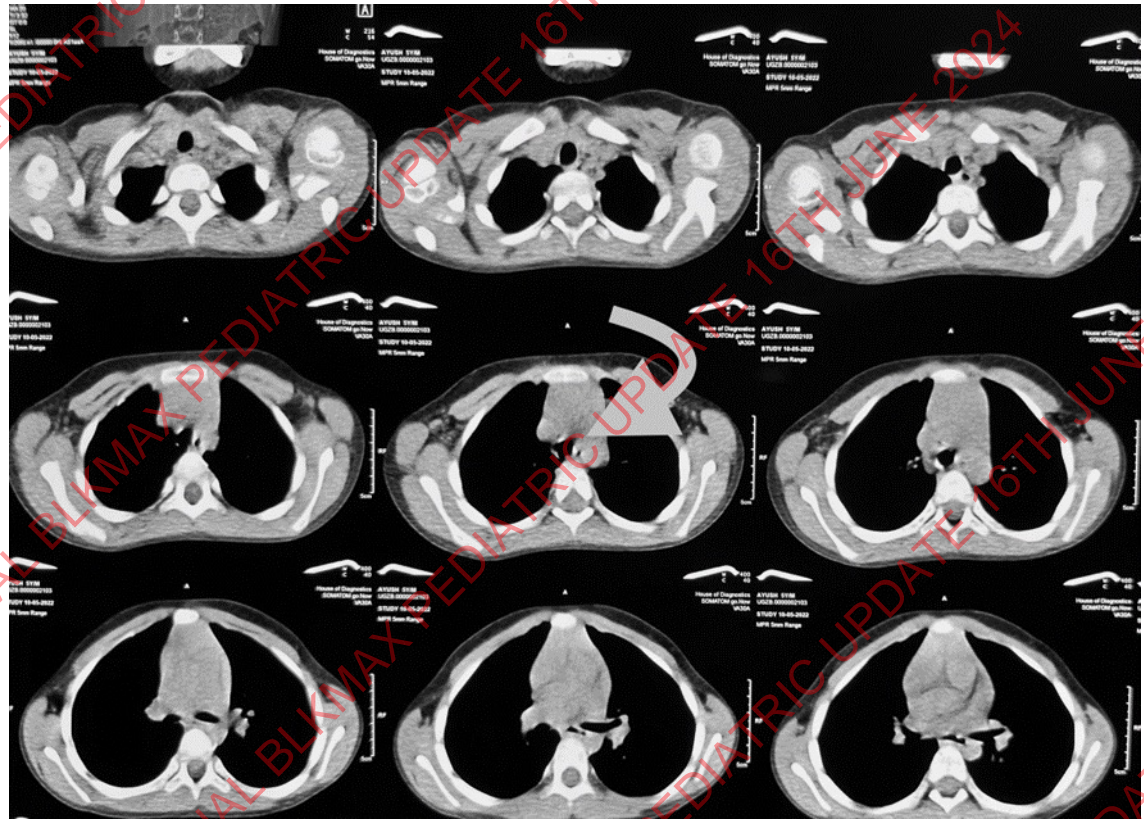




- ✱ 1y 3 m boy
- ✱ H/o aspiration of Gram seed
- ✱ Developed Noisy breathing and RD
- ✱ Exam: RR 40/min, suprasternal and subcostal retractions +
- ✱ Bilateral air-entry was reduced



- ✱ 8 y old male
- ✱ Playing with whistle in the mouth
- ✱ Aspirated
- ✱ Developed RD
- ✱ CT done in outside hospital





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FB removal with Flexible FB

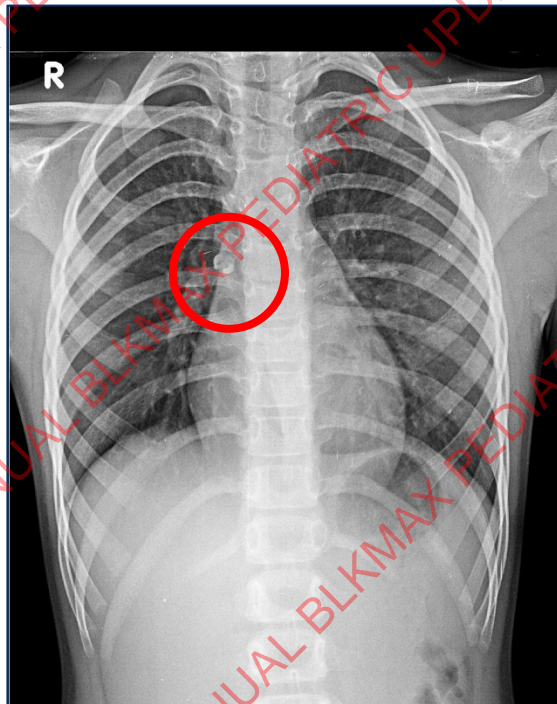




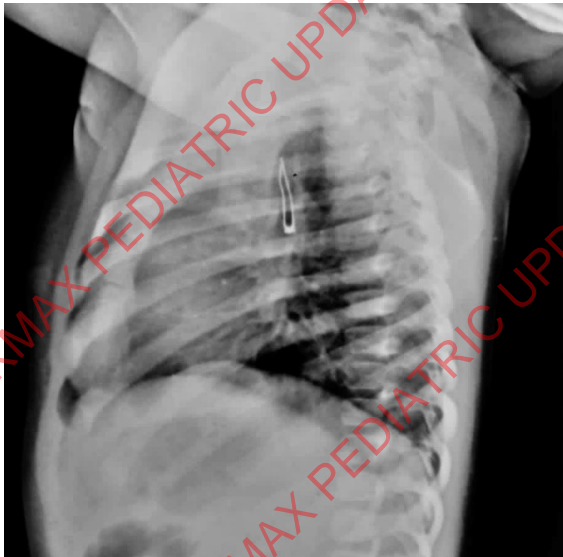
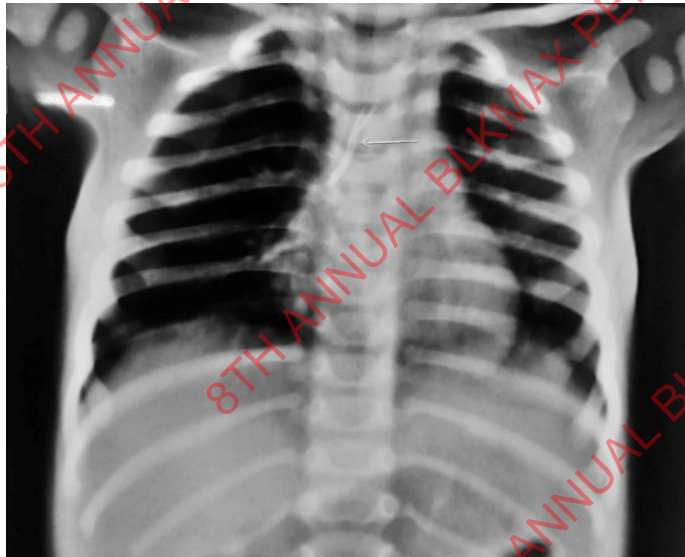
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Case 11

- ❖ 6 y girl
- ❖ Tooth Extraction
- ❖ Crying
- ❖ Aspirated a tooth



❖ 3yr old with LED light aspiration





- ✦ **Most FBs in the gastrointestinal tract pass spontaneously** without complications, endoscopic or surgical removal may be required in a few children
- ✦ **Always suspect foreign body** in susceptible children with **unexplained respiratory or GI symptoms**
- ✦ Delayed diagnosis can worsen the clinical condition and lead to mortality and morbidity
- ✦ Education of parents about high risk FB should be done
- ✦ Outcomes and prognosis in pediatric foreign body ingestion are generally good



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