# Pedi ED Conference

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- 15 month old presents to the ER. Mother reports that since she picked him up from daycare that evening he has been refusing both solids or liquids but is otherwise well. She denies any history of fever, vomiting, cough or runny nose. Vital signs Temp 37.2, RR 24, Pulse 100 BP 98/56 mmHg. Physical examination is otherwise unremarkable. Which of the following is the best next step in the management of the above patient ?

# Answers

- A. CBC and blood culture
- B. AP chest and lateral films
- C. rapid strep test
- D. provide mother with reassurance that patient has a viral illness

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- Foreign body (FB) ingestion is a potentially serious problem that peaks in children aged 6 months to 3 years.
- It causes serious morbidity in less than one percent of all patients, and approximately 1,500 deaths per year are attributed to ingestion of foreign bodies in the United States.
- **Because many patients who have swallowed foreign bodies are asymptomatic, physicians must maintain a high index of suspicion.**

- An estimated 40 percent of foreign body ingestions in children are not witnessed, and in many cases, the child never develops symptoms

- Many of the symptoms can be misdiagnosed as a viral upper respiratory illness or a gastrointestinal illness.

- The physical examination does not play a large role in establishing an foreign body ingestion diagnosis. Drooling is a concerning symptom and can be a sign of complete esophageal obstruction.

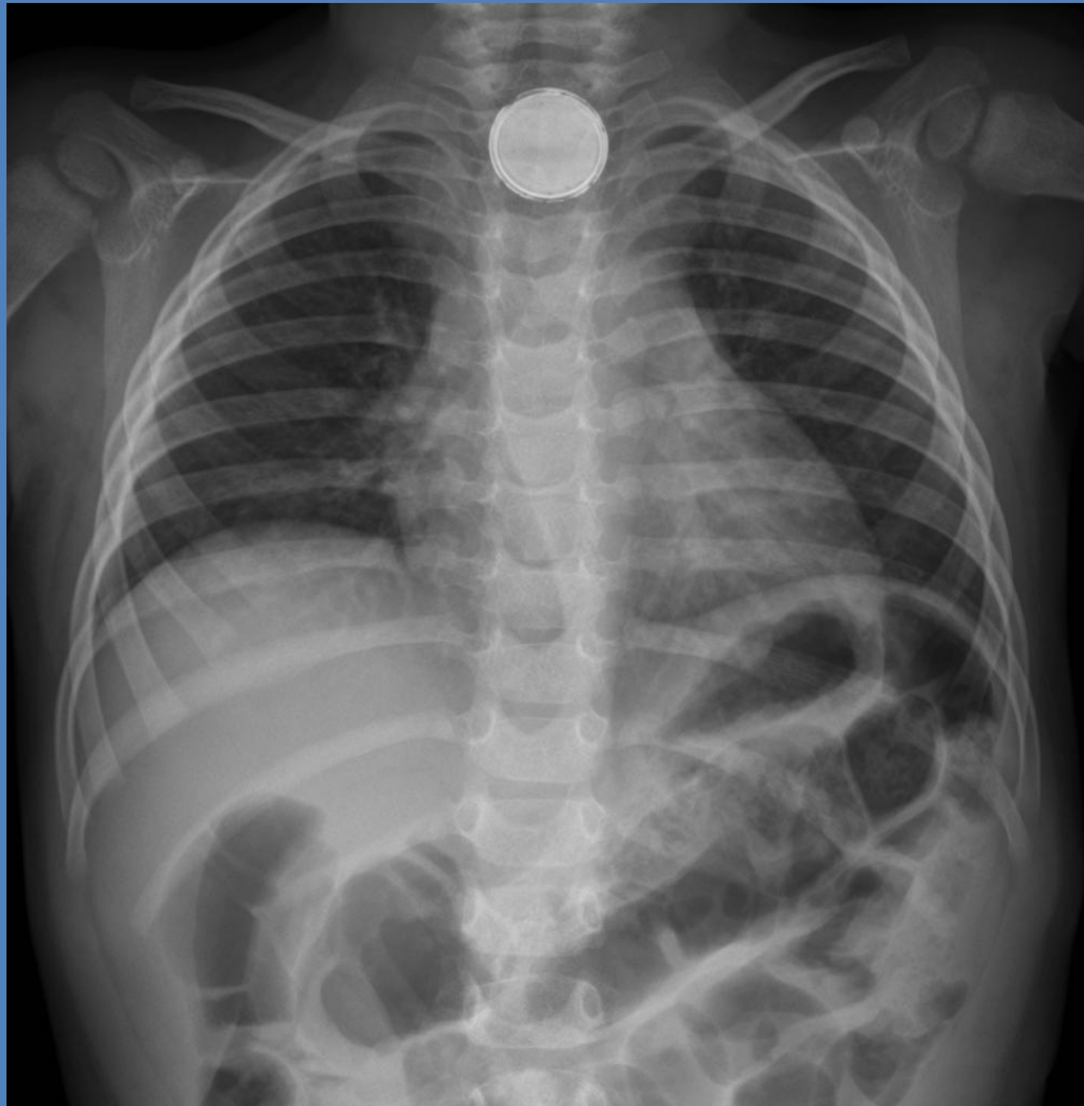
# Symptoms of Esophageal Foreign Bodies

- Blood in saliva
- Coughing
- Drooling
- Dysphagia/odynophagia
- Failure to thrive
- Fever
- food refusal
- foreign body sensation in throat
- gagging
- irritability
- Pain in neck, throat, or chest
- Recurrent aspiration pneumonia
- Respiratory distress
- Stridor
- Tachypnea or dyspnea
- Vomiting
- Wheezing

- The main diagnostic tool for foreign body ingestion is radiography.
- Anteroposterior (AP) and lateral films are required to localize FB.
- AP film alone may make an FB seem to be in the esophagus.
- Lateral films are also superior in identifying a radiolucent FB, identifying subtle findings such as tracheal compression, tracheal deviation, and air trapped within esophagus

- Therefore in a 15 month child who was previously well and suddenly develops food refusal with a normal examination the best initial investigation should be chest and lateral neck films to look for ingestion of a foreign body.
- A strep test is not indicated since throat/pharynx was normal on examination and furthermore in this age group pharyngitis is usually secondary to viral etiology.
- A CBC and blood culture is not indicated since patient was afebrile and looks well and presentation not concerning for an infectious etiology.
- There was no history of URI symptoms and hence this is unlikely a viral illness.

- A 2 year old presents after mother witnessed him swallow an object that he found on the ground at home. VS T37.1 (tympanic), P100, R36, BP 100/65, oxygen saturation 99% on room air. Patient is alert, active, no distress, no drooling. Physical examination is unremarkable. You order stat AP and lateral films which shows the following:



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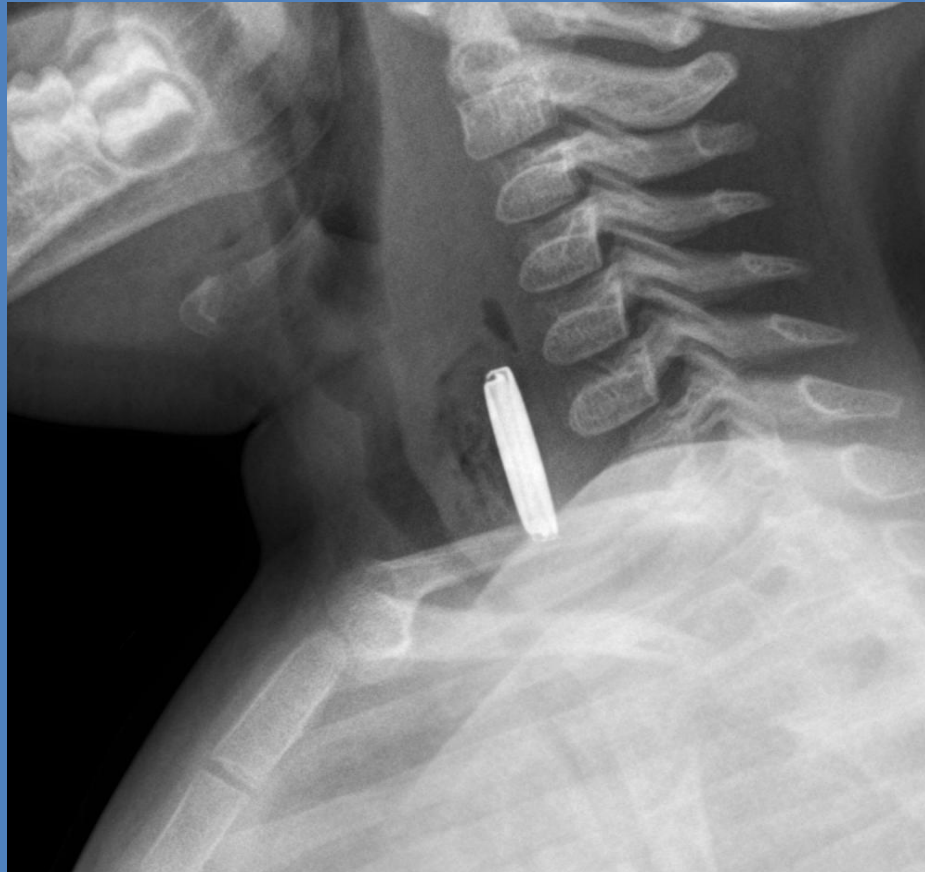

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- What would be next step in management?

A. 24 hour observation

B. referral for urgent endoscopic removal

C. weekly radiographs and observe stool

D. referral to advance object to stomach.

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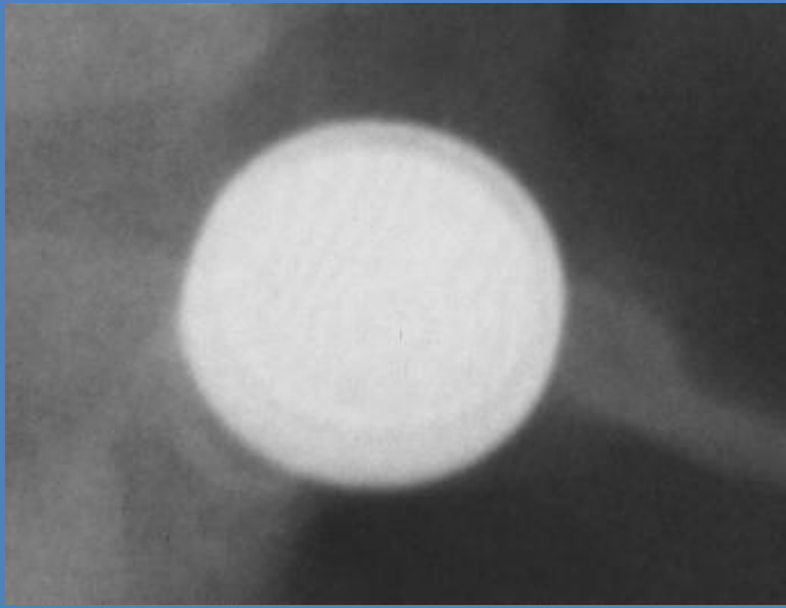
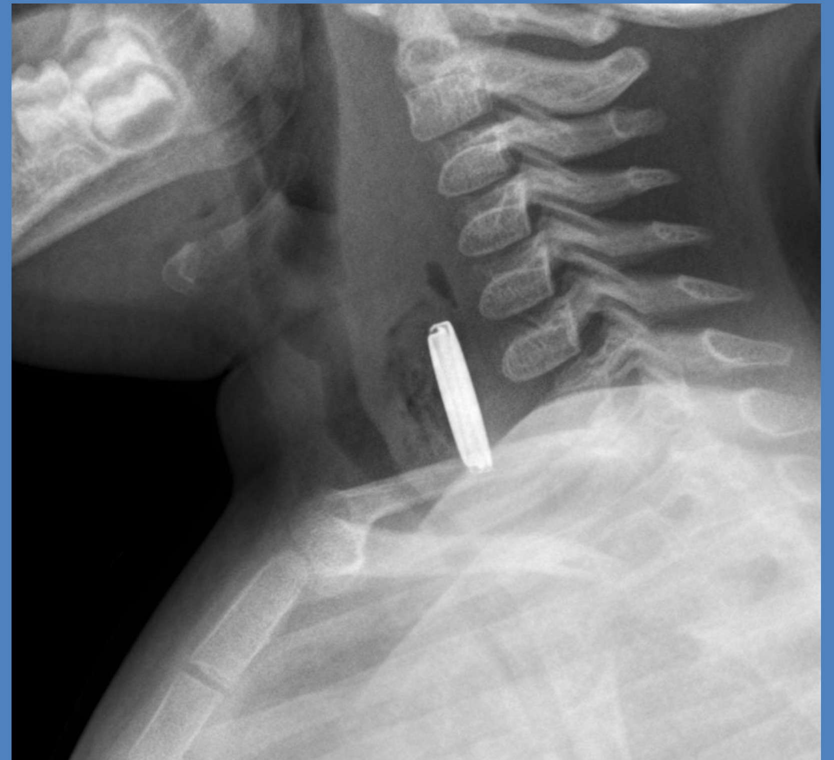
- Coins are the most common objects ingested by children in the United States. Since disk batteries (also called button batteries) have different GI consequences compared to coins, it is important to distinguish an ingested coin from a disc battery by history or radiographically.

- Disc batteries will often have the characteristic internal ring appearance if taken in the AP direction.  If taken in the lateral position (on edge), it may show a bulge on one side (bilaminar appearance).





- Disc batteries lodged in the esophagus can potentially cause serious problems in three ways

1) Direct pressure necrosis (similar to coins or other inert foreign bodies).

2) Caustic injury due to the leakage of sodium or potassium hydroxide from a leaking battery

3) The esophagus can also sustain injury from low voltage burns from a disc battery that still has a charge.

- As a result, button batteries and sharp objects lodged in the esophagus require urgent endoscopic removal.

- Button batteries and sharp objects lodged in the esophagus require urgent endoscopic removal; all other foreign bodies lodged in the esophagus should be removed or advanced into the stomach

- Most blunt objects in the esophagus may be observed for up to 24 hours. If the object fails to pass into the stomach, it should be removed or possibly pushed into the stomach.
- Objects that have been lodged in the esophagus for more than 24 hours or for an unknown duration should be removed endoscopically

- If the object has been lodged in the esophagus for more than two weeks, there is significant risk of erosion into surrounding structures, and surgical consultation should be obtained before attempting removal

- Since  object indentified on films is a button battery the patient in above question should be referred for urgent endoscopic removal.

- blunt objects can be observed for 24 hours or advanced into the stomach.

- If the battery is beyond the esophagus, the patient may be sent home and instructed to watch for symptoms of toxicity and passage of the battery in the stool by straining all stools.

# References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