Case Scenario: Stridor in children

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- A previously healthy 18-month-old girl was brought to the emergency department with a 2 hr history of fever and stridor.

- There was no previous history of choking, foreign body aspiration or sick contact.
- All routine immunizations, including the 18-month booster, were up to date.

- On arrival, the patient’s temperature was 38.5°C, heart rate 200 beats/min, respiratory rate 40 breaths/min and oxygen saturation was 97% on room air.
- On initial assessment, the patient had a hoarse cry, inspiratory stridor and mild suprasternal retractions but was able to swallow without difficulty.
- No drooling was evident.

- https://www.youtube.com/watch?v=gYhGIFQcCnU

- Pls refer to the above link to listen to the noisy breathing that the child presented to ED with.

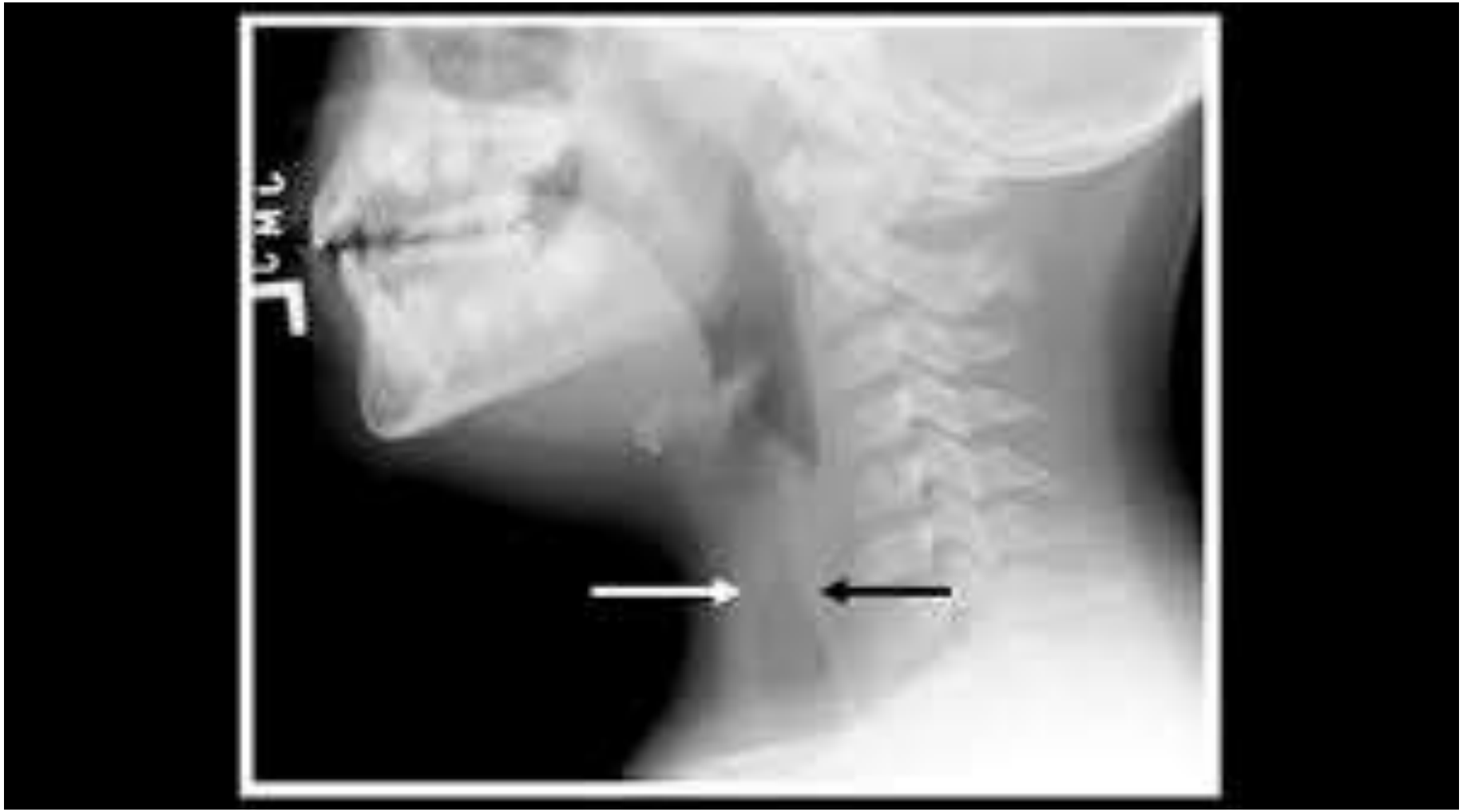
What is your differential diagnosis

Differential Diagnosis:

- Croup
- Bacterial tracheitis
- Epiglottitis
- Foreign body aspiration, but already excluded by history!

CXR was done in ED and showed the following

Radiography in ED: showed steeple sign



- **Steeple sign** is also called the ***wine bottle sign***, refers to the tapering of the upper trachea on a frontal chest radiograph reminiscent of a church steeple.
- The appearance is suggestive of croup, which should be ***obvious clinically.***

However,

We don't need to do a lateral xray to diagnose croup; it is a clinical diagnosis.

Management

- The patient received nebulized budesonide and epinephrine
- followed by intravenous dexamethasone (0.6 mg/kg) and a fluid bolus of 0.9% normal saline, because he was not feeding well.

When do we need to admit the patient with croup to hospital ??

Indications for admission:

- If at least two adrenaline nebulization required.
- If stridor at rest continues
- If young patient, less than 6months
- If requires Oxygen due to hypoxemia
- If Toxic appearance on presentation

- **Future reading from nelson textbook essential of pediatrics**