1-day-old female with respiratory distress

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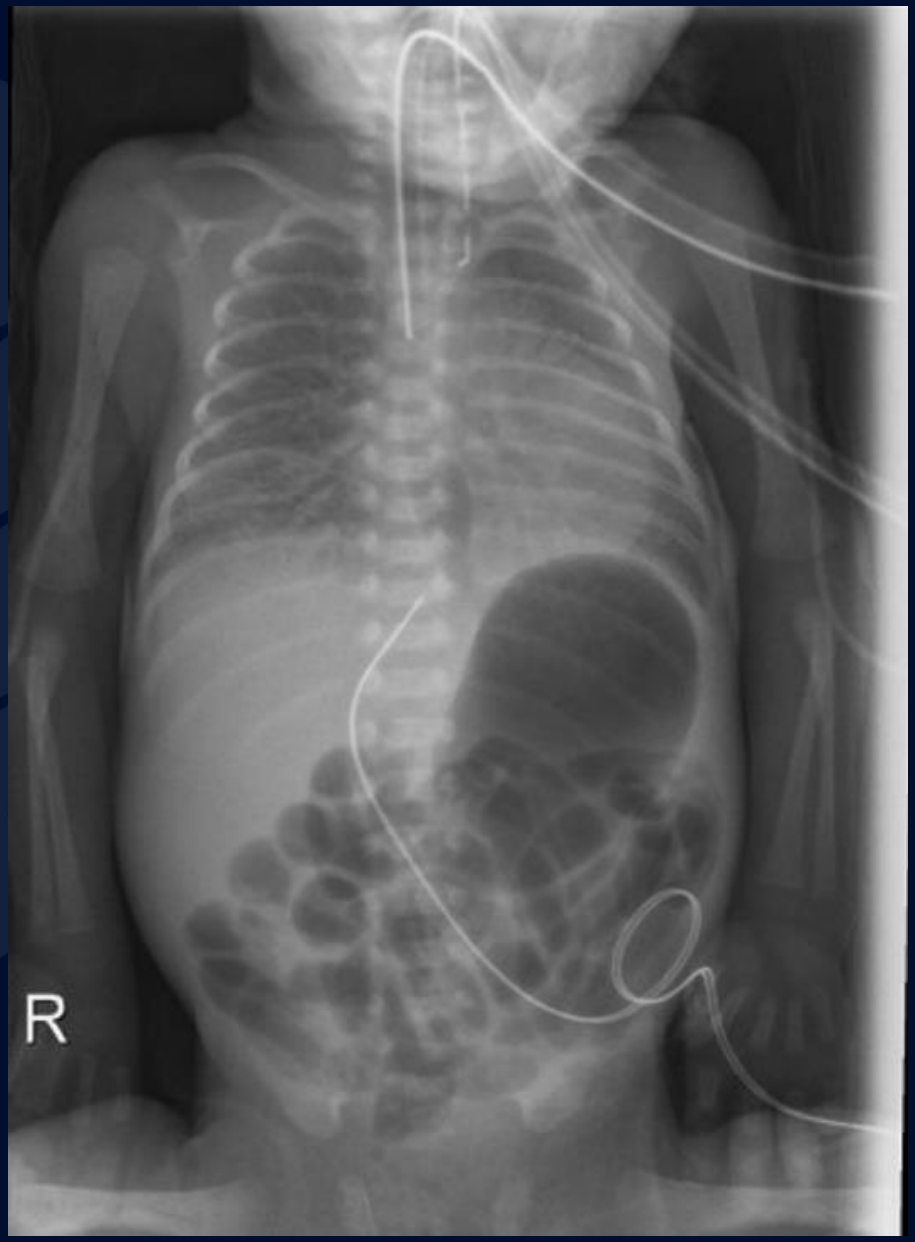
Chest and Abdomen Radiograph – AP View



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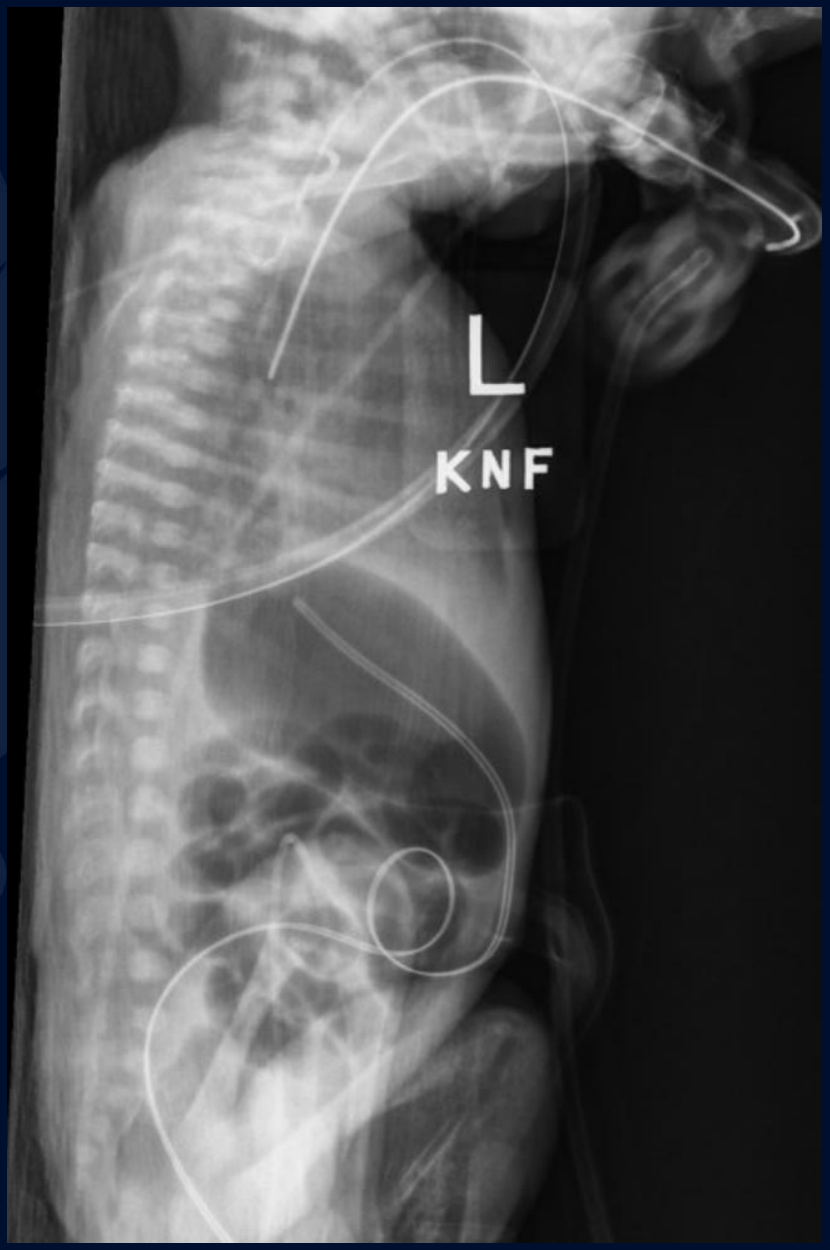
Chest and Abdomen Radiograph – Lateral View



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Esophageal Atresia (Type C)

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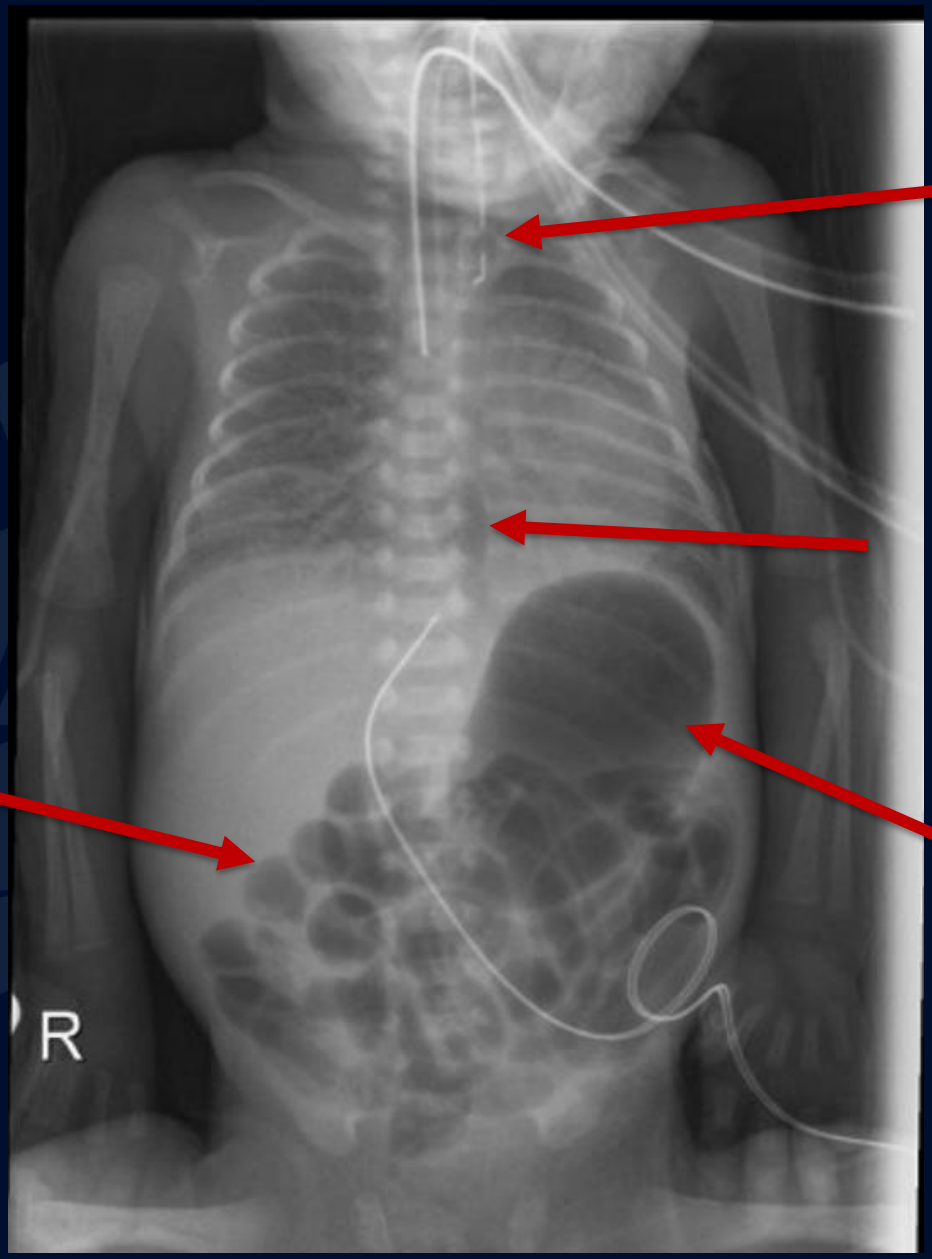
Chest and Abdomen Radiograph – AP View



Replogle tube terminating in esophageal pouch

Gaseous distention of distal esophagus

Gaseous distension of bowel

Gaseous distension of stomach

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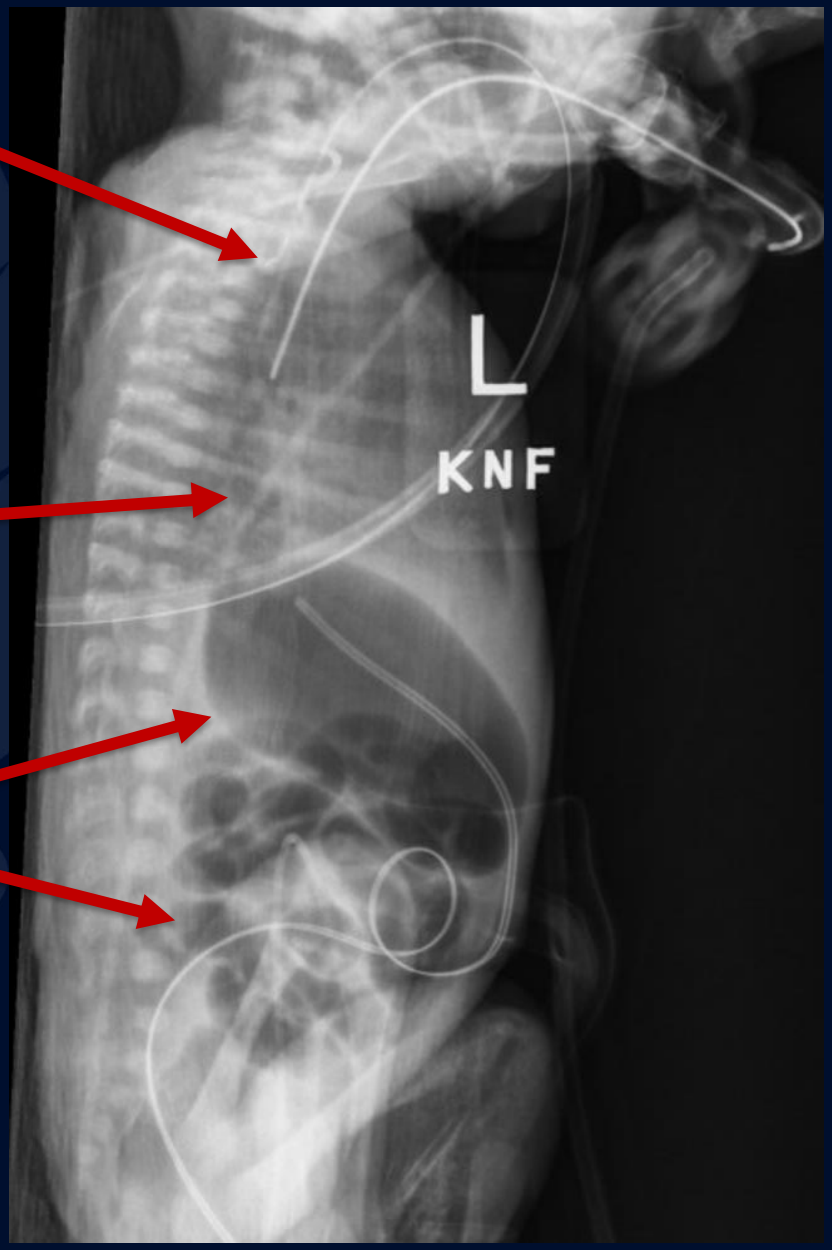
Chest and Abdomen Radiograph – Lateral View

Replogle tube tip

Gaseous distention of distal esophagus

Gaseous distention of stomach and bowel



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Type C Esophageal Atresia (EA)

- **Pathophysiology**
  - EA and tracheoesophageal fistula (TEF) are caused by a defect in the lateral septation process of the foregut into the esophagus and trachea.
  - Type C atresia (consisting of a proximal esophageal pouch and a distal TEF) is the most common subtype of EA, accounting for ~84% of cases.
  - Clinical associations include polyhydramnios, which occurs in ~2/3 of pregnancies with EA/TEF, as well as the VACTERL association.
- **Diagnosis**
  - In affected infants, a rubber catheter cannot be passed farther than 10 -15 cm into the esophagus
- **Management / Treatment**
  - Replogle tube is used to continuously drain saliva from the esophageal pouch
  - Primary anastomosis of the esophageal segments is performed for EA, typically as soon as possible. If the distance between the esophageal segments is large, primary repair may not be possible. In that scenario, repair is usually delayed 2-9 months to allow for esophageal growth that would then permit primary repair.
  - Treatment of TEF consists of surgical separation of the trachea and esophagus by ligation of the fistula.

Differential

- Pharyngeal pseudodiverticulum
- Laryngotracheoesophageal clefts
- Esophageal webs/rings
- Esophageal strictures
- Tubular esophageal duplications
- Congenital short esophagus
- Tracheal agenesis

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Imaging Findings

Radiograph

- Type C esophageal atresia on an AP chest radiograph demonstrates a catheter curled in the upper esophageal pouch.
- A distal TEF may be suspected based the presence of a gas-filled gastrointestinal tract.
- When the diagnosis is uncertain and/or proximal TEF is suspected, a small amount of water-soluble contrast material can be placed in the esophageal pouch under fluoroscopic guidance.
  - Barium should NOT be used as the contrast agent, because it can cause pneumonitis if aspirated into the lungs.

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