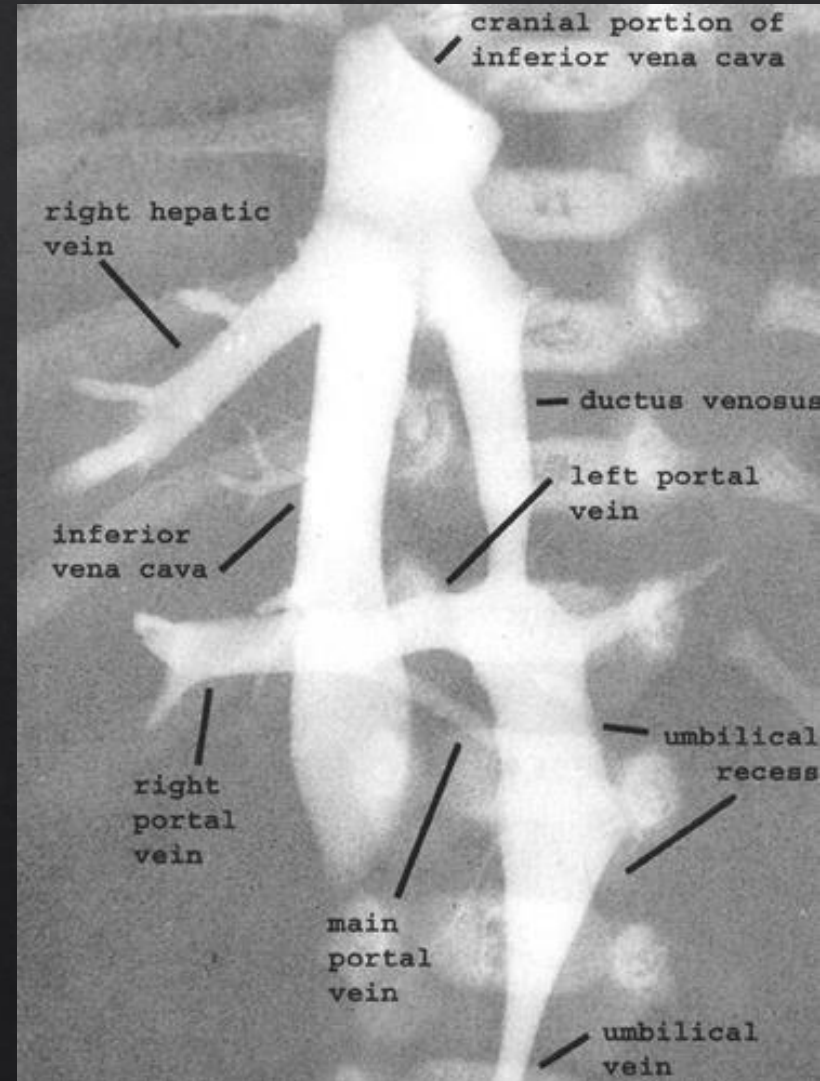
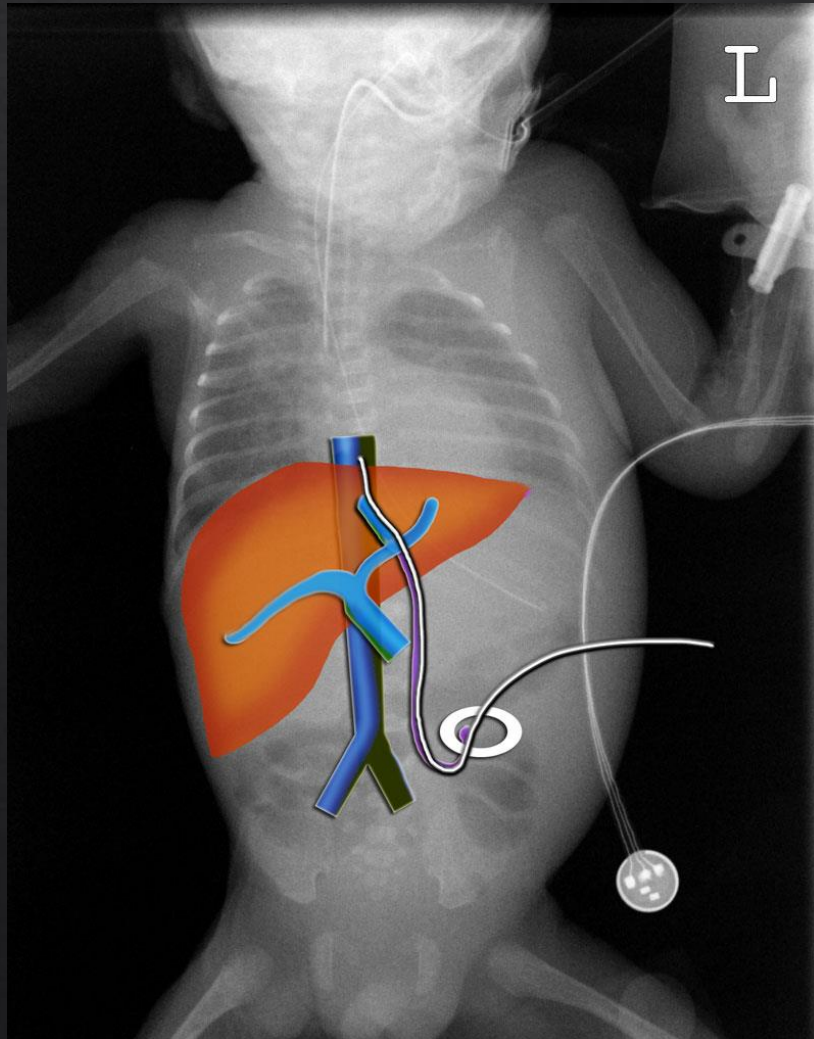
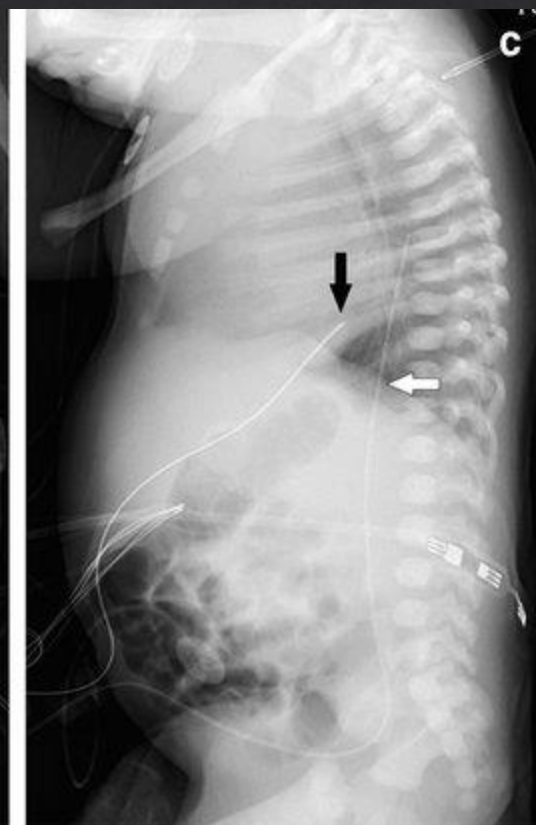
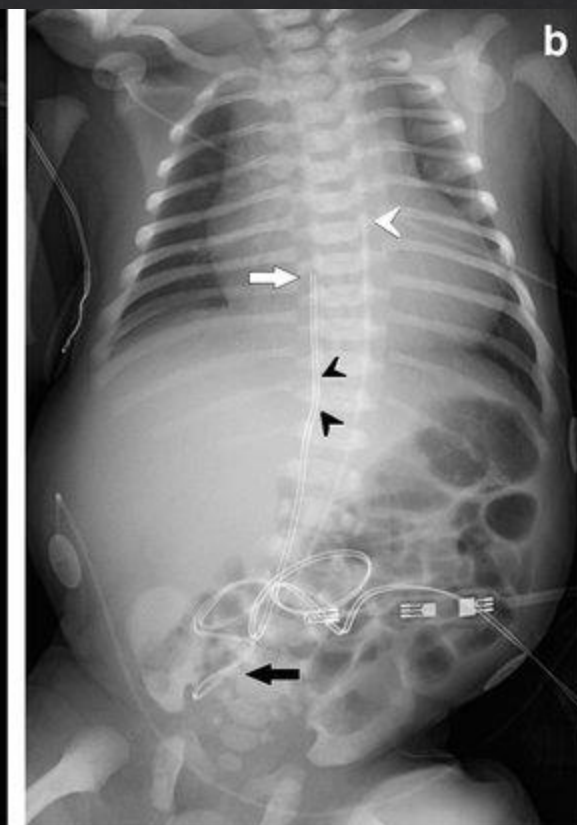
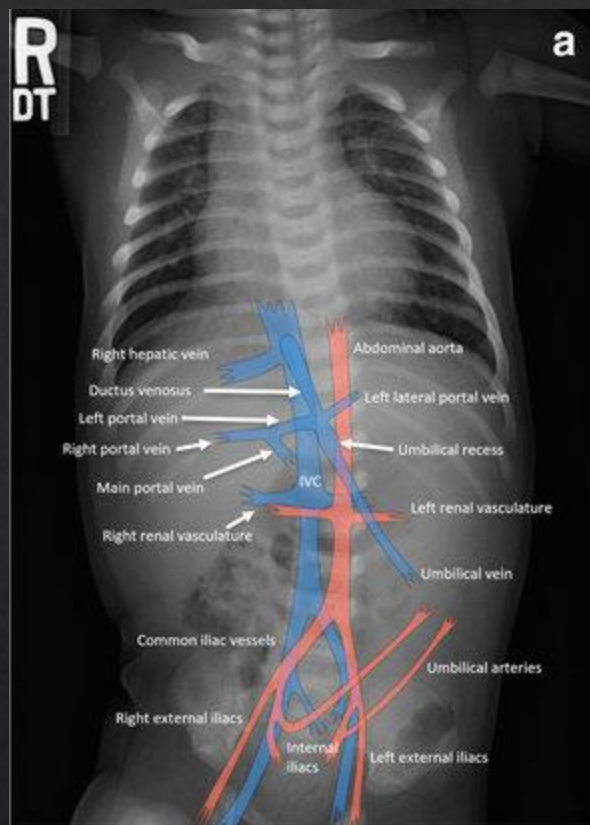
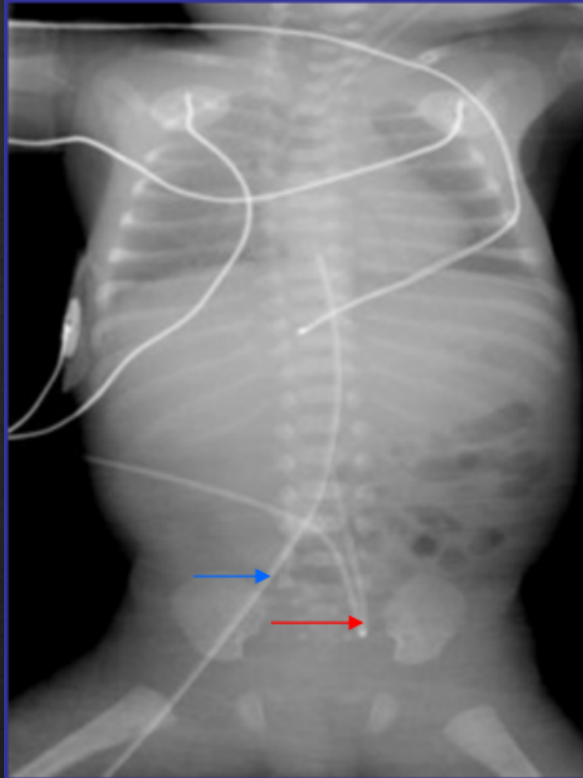


# Normal Venous anatomy





# UAC vs. UVC

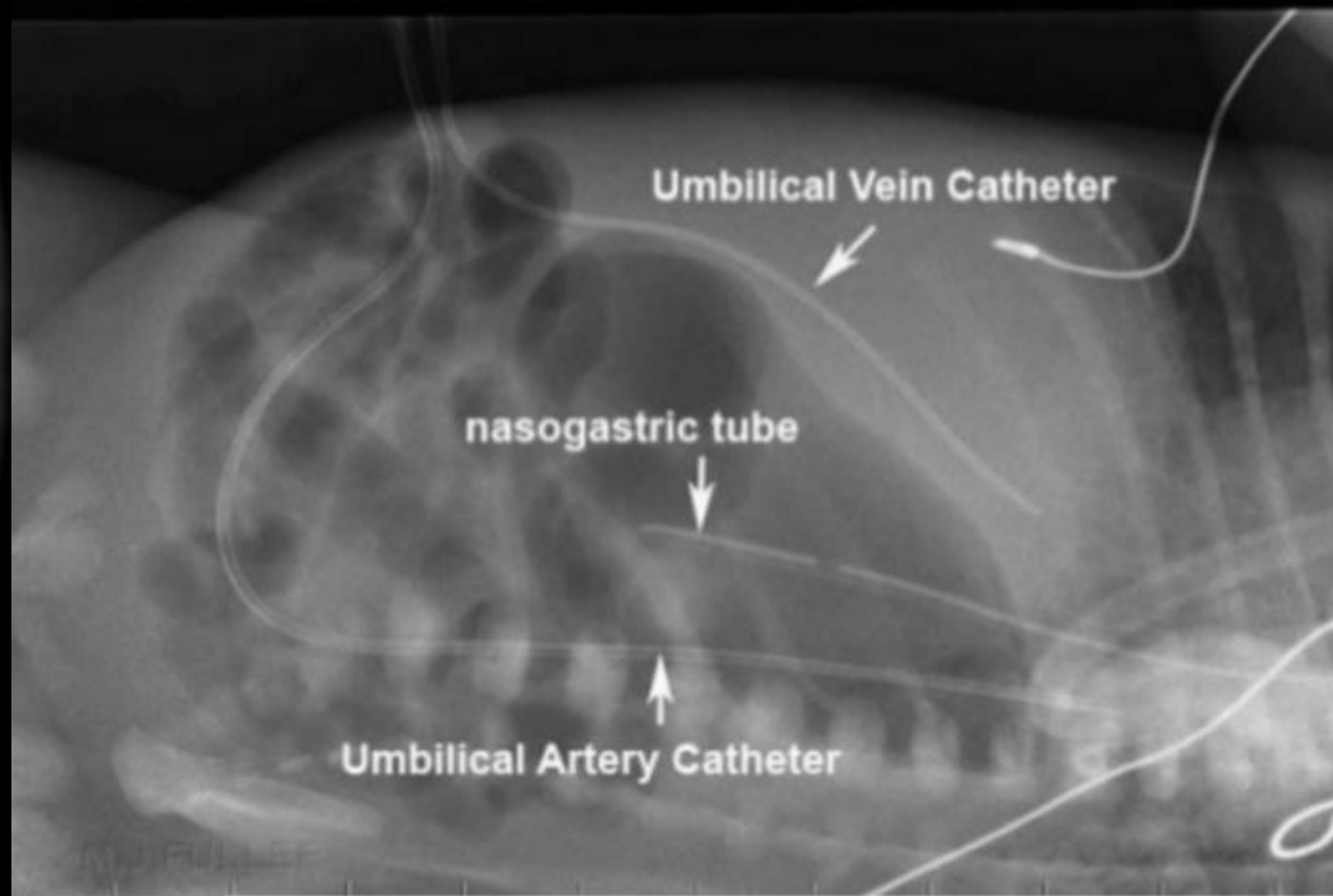
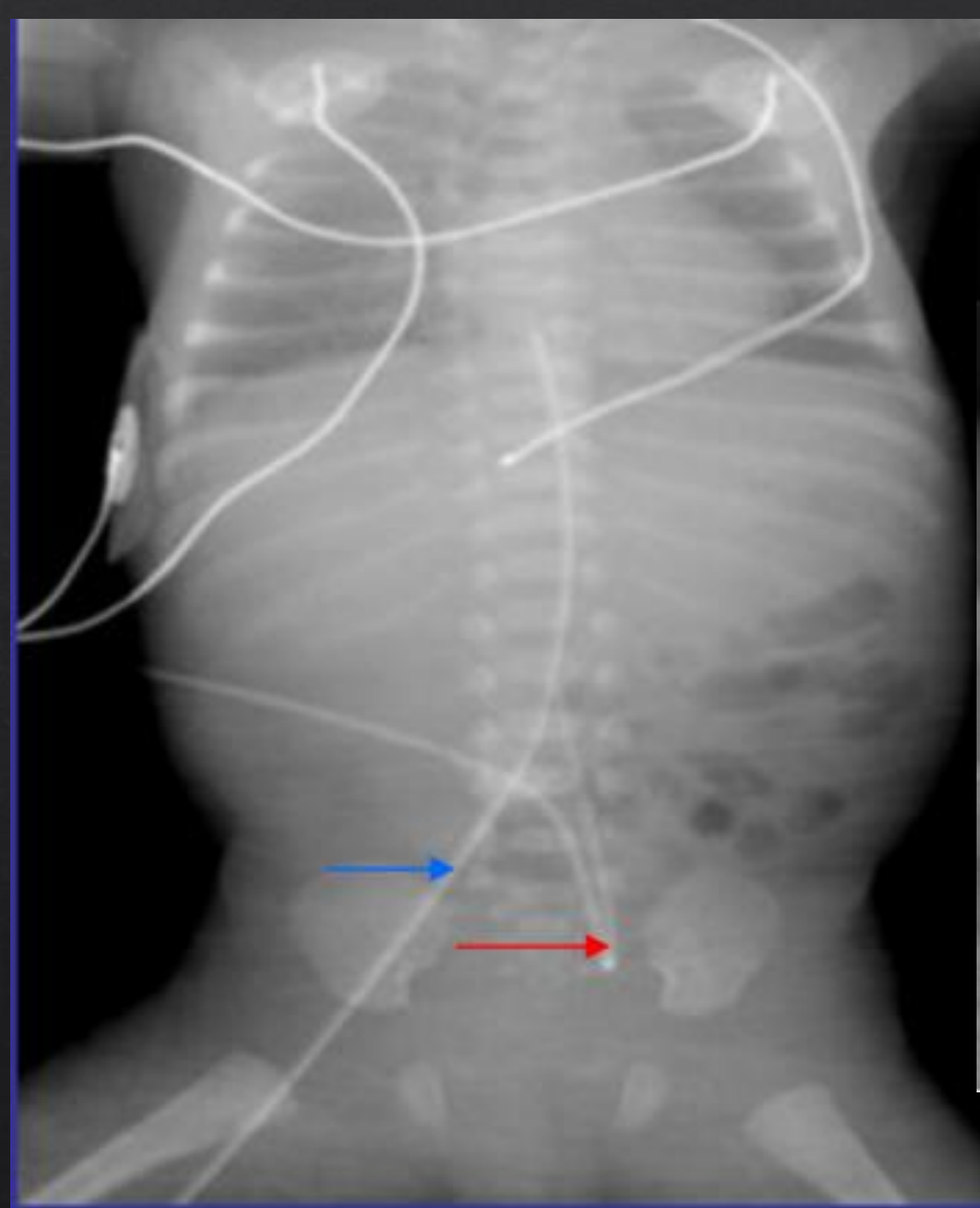


The UAC (red arrow) initially coursing down contrasted with the UVC (blue arrow) extending superiorly

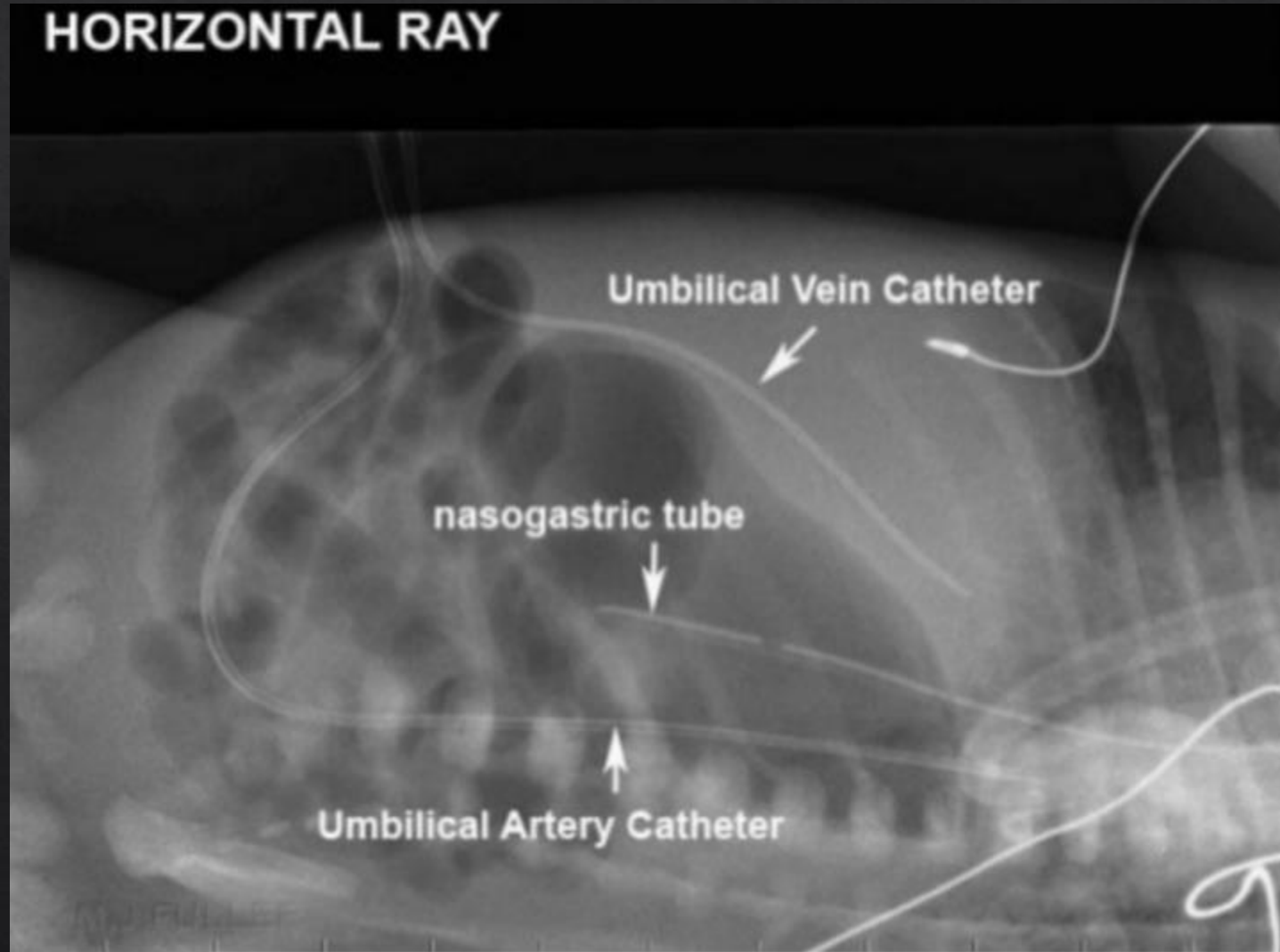
- Umbilical arterial catheters (UAC)
  - Initial downward course from the umbilical insertion into the internal iliac artery.
  - Tip should be positioned below L2
- Umbilical venous catheter (UVC)
  - Extend immediately superior from the umbilicus.
  - Tip should be positioned within 1 cm of the diaphragm



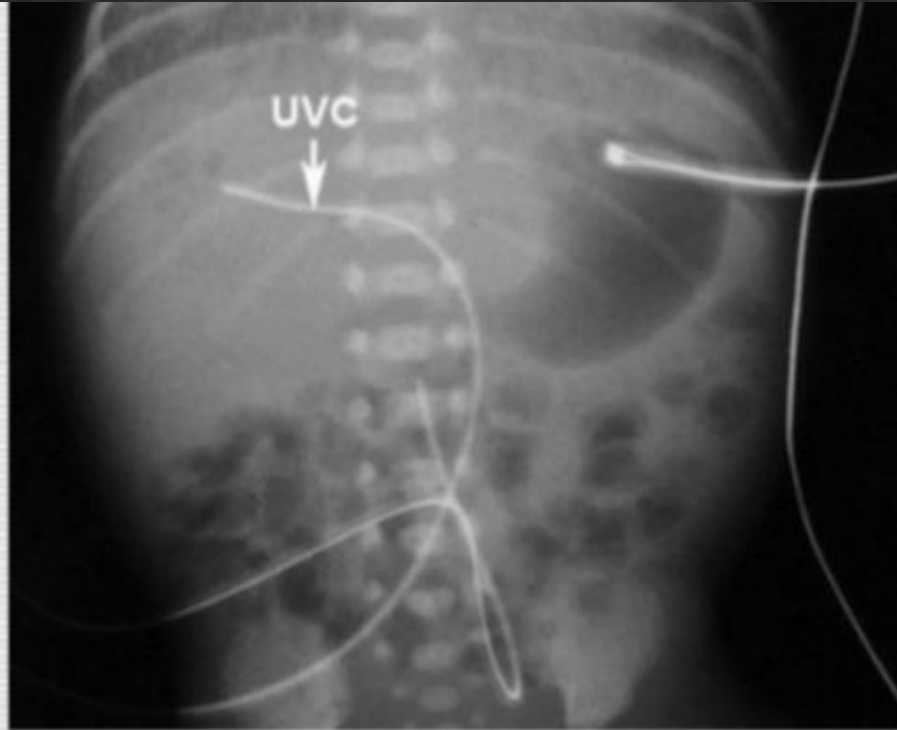
## HORIZONTAL RAY



# Lateral view

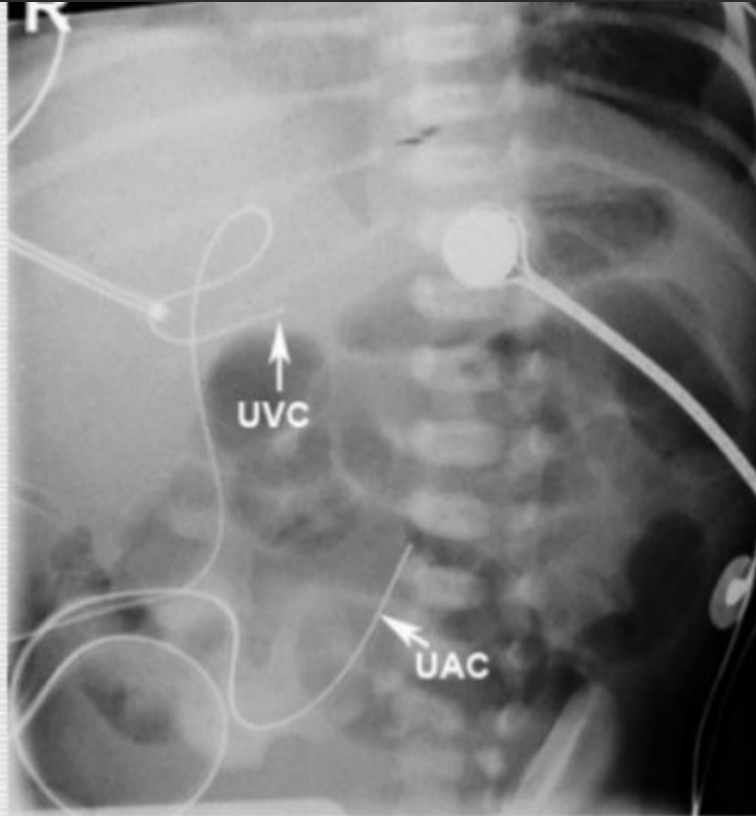


# Right Portal Vein



The UVC deviates to the right at the level of the right portal vein. Air in portal venous branches associated with umbilical venous catheter insertion.

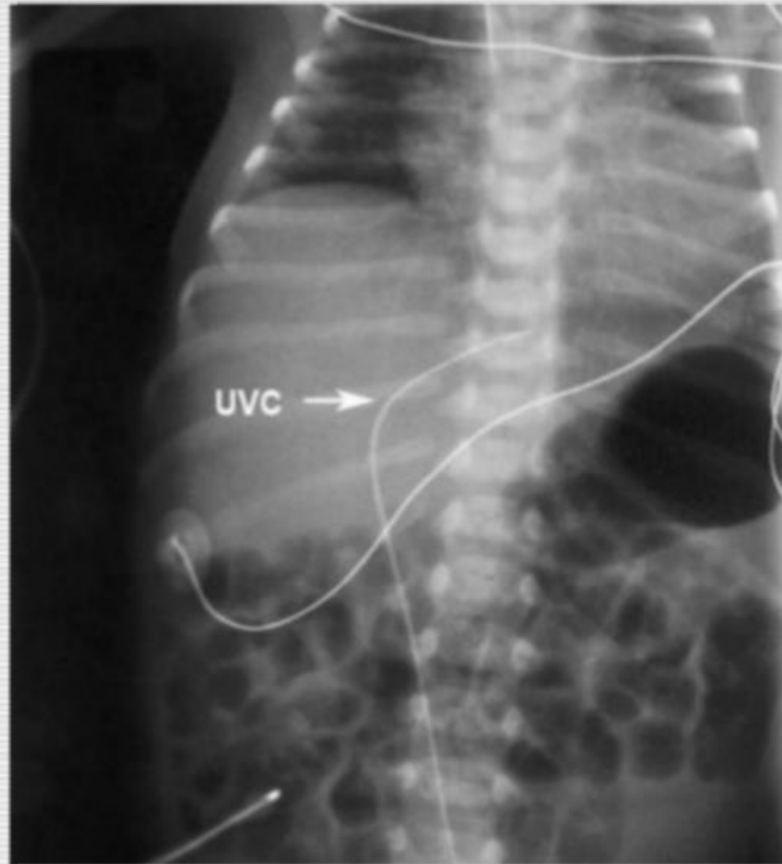
# Left Portal vein



The UVC has deviated medially at the level of the left portal vein. It may also have looped in the capacious space at the junction of the umbilical vein and left portal vein.



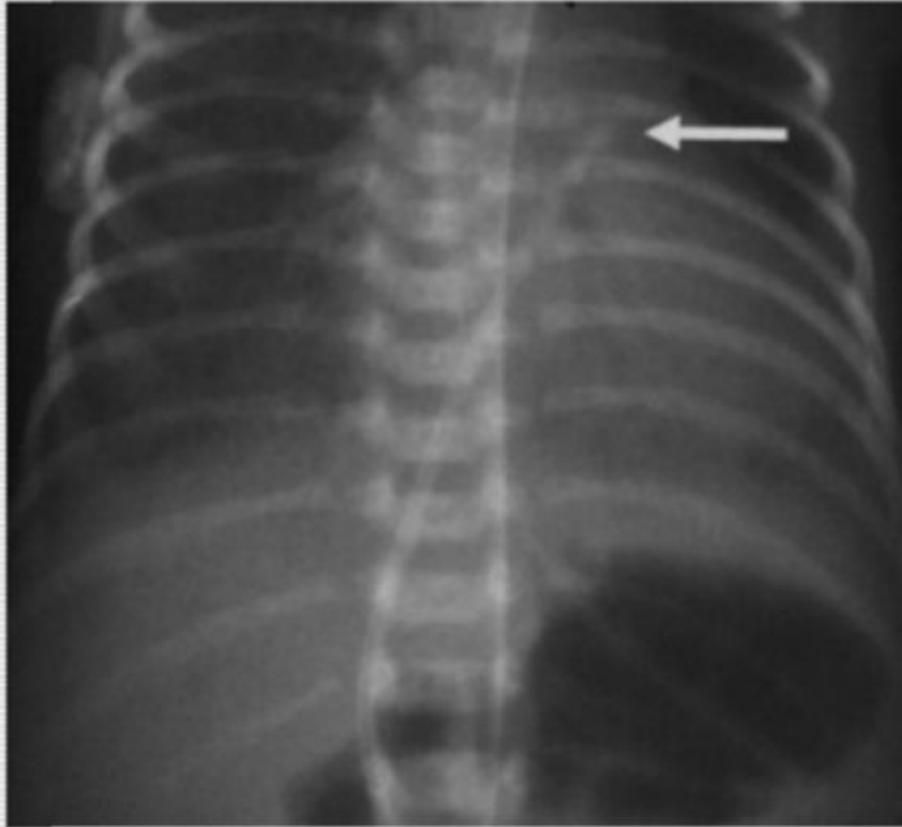
# Left Hepatic vein



The UVC has deviated to the left at T8 which is the level of the left hepatic vein. The UVC tip is most likely to lie within the left hepatic vein.

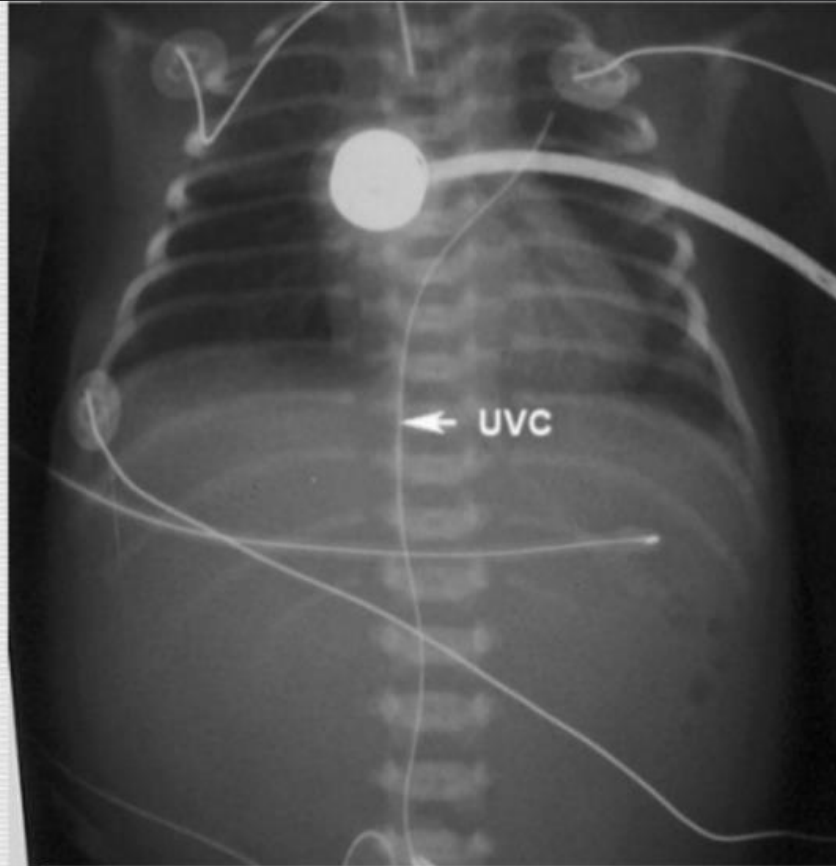


# Left Atrium



Tip of an umbilical venous catheter (straight arrow) in the left atrium; it has passed through a patent foramen ovale.

# Pulmonary vein



The UVC tip is in the pulmonary vein.