

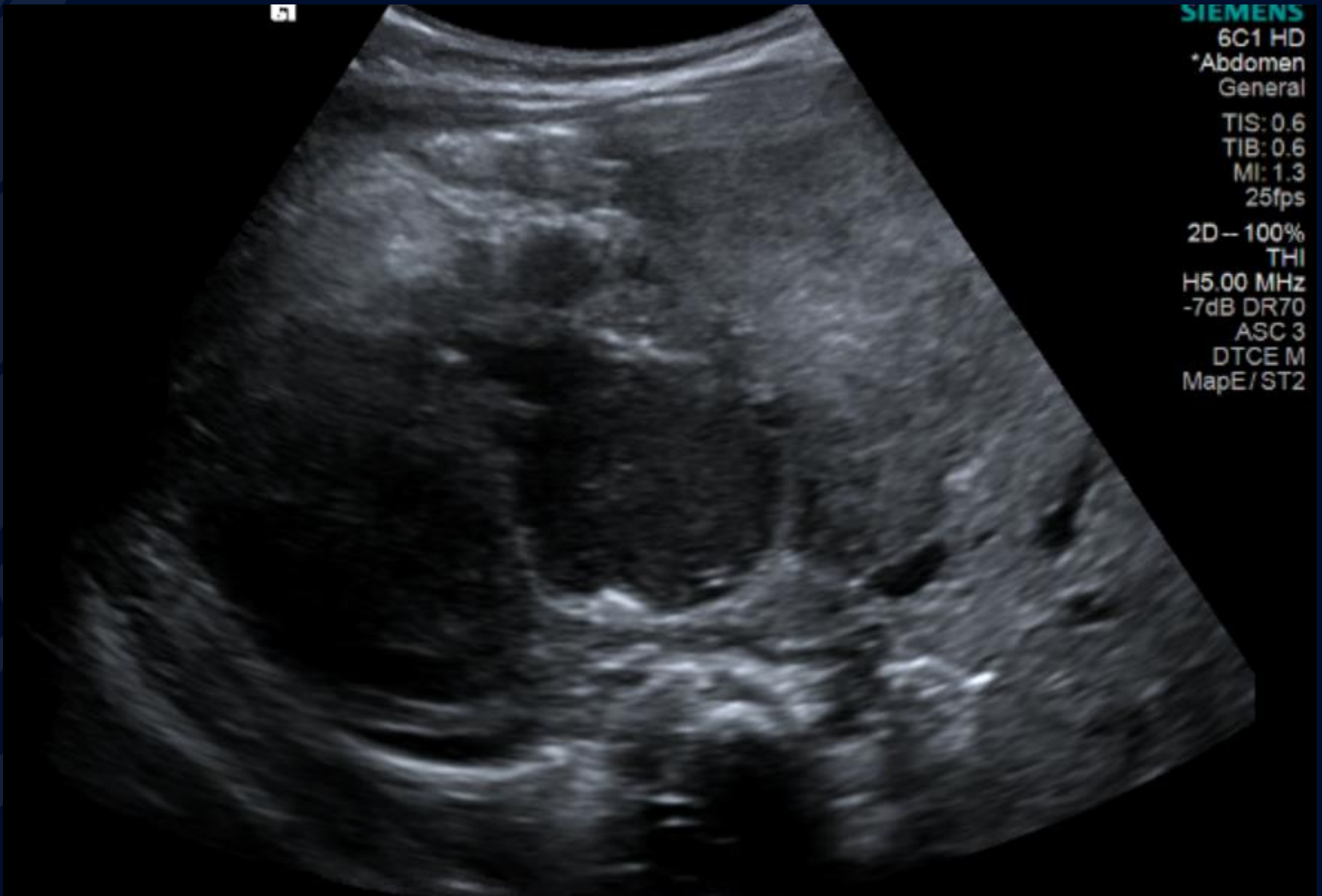
21-month-old child with acute right-sided limp

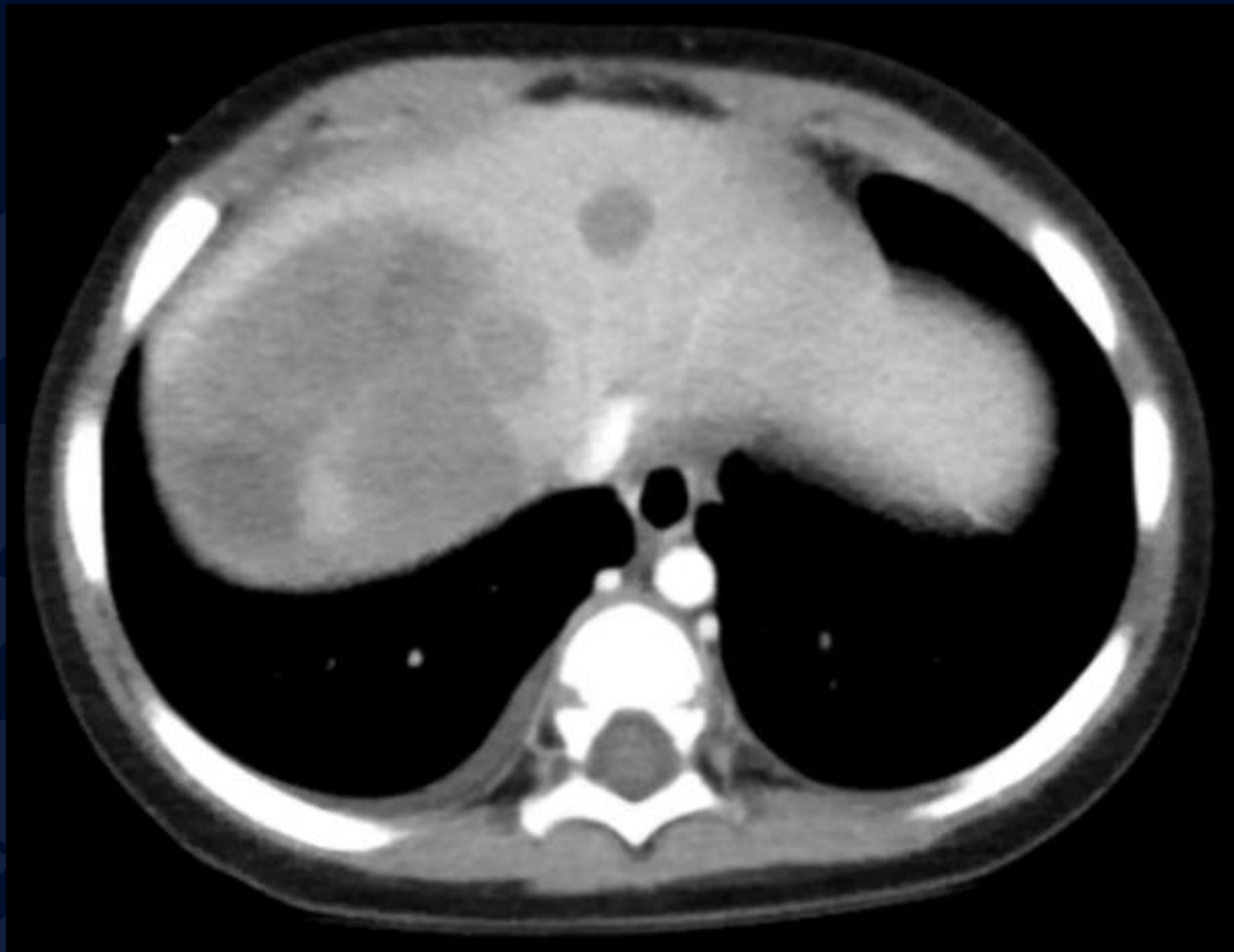
Kiana Akhundzadeh, MS3

AP / Lateral Radiographs



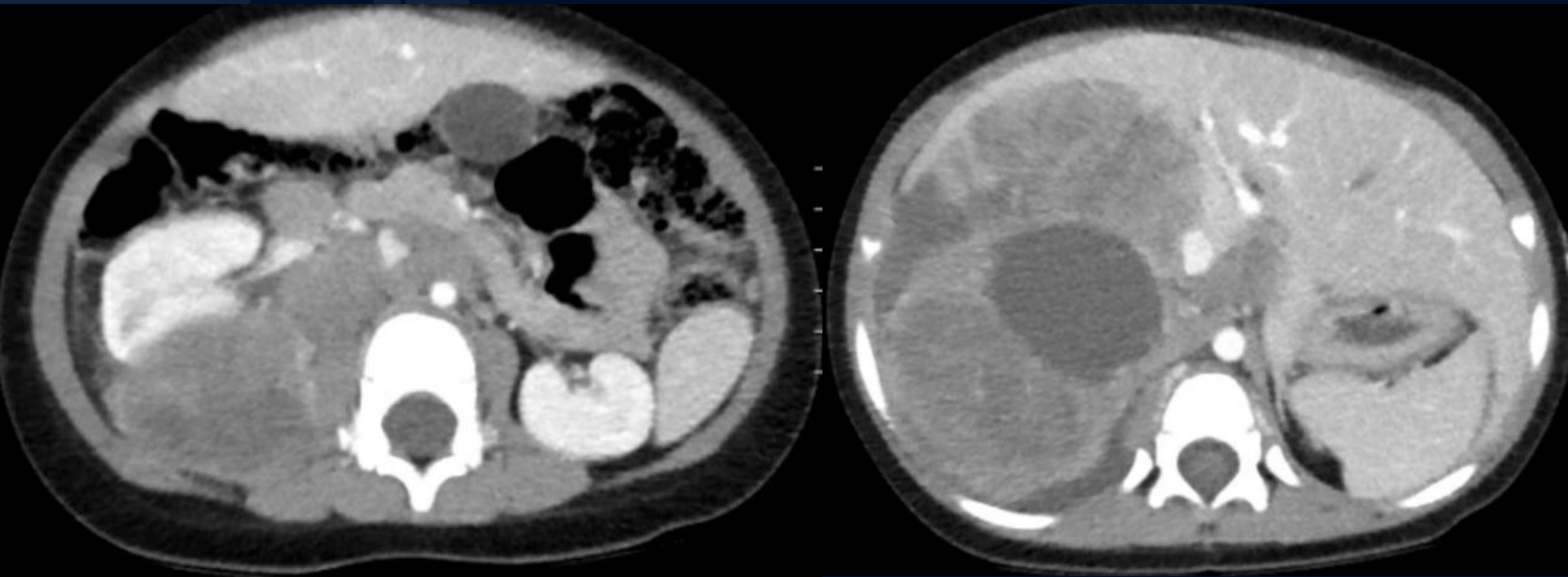
Abdominal US





CT IV Contrast

CT IV Contrast





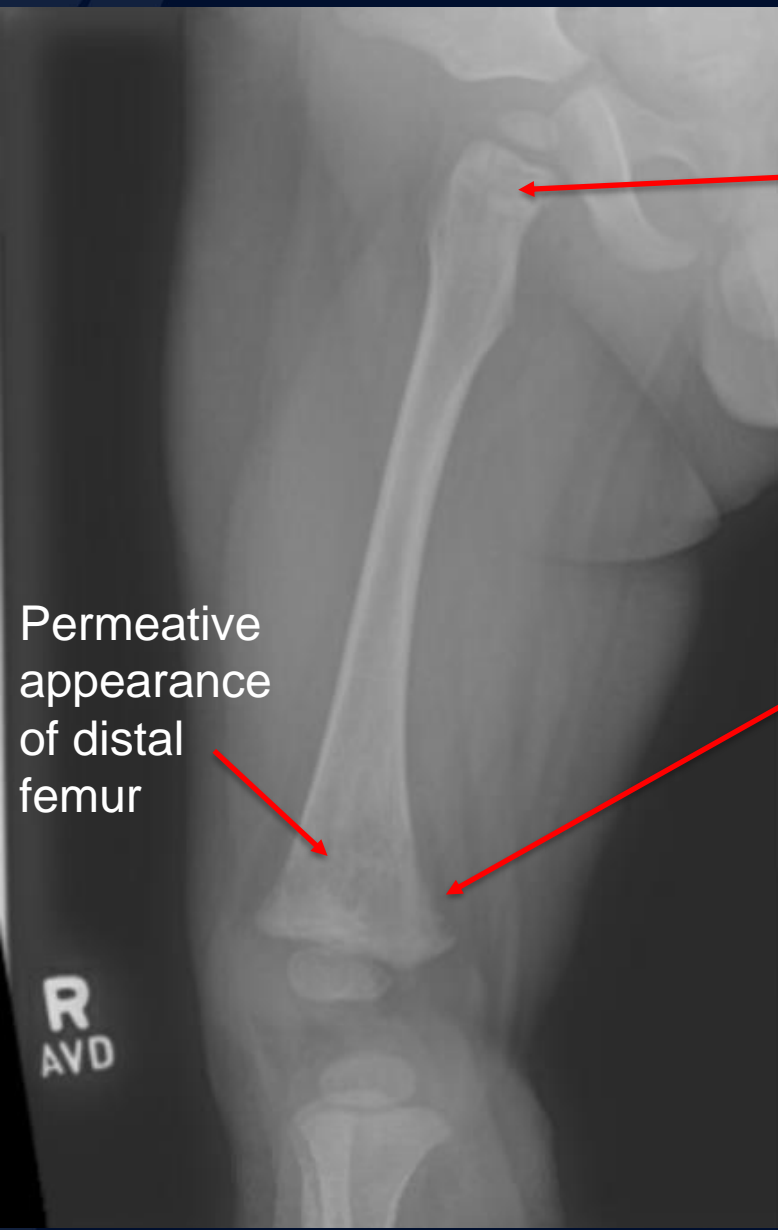
CT IV Contrast



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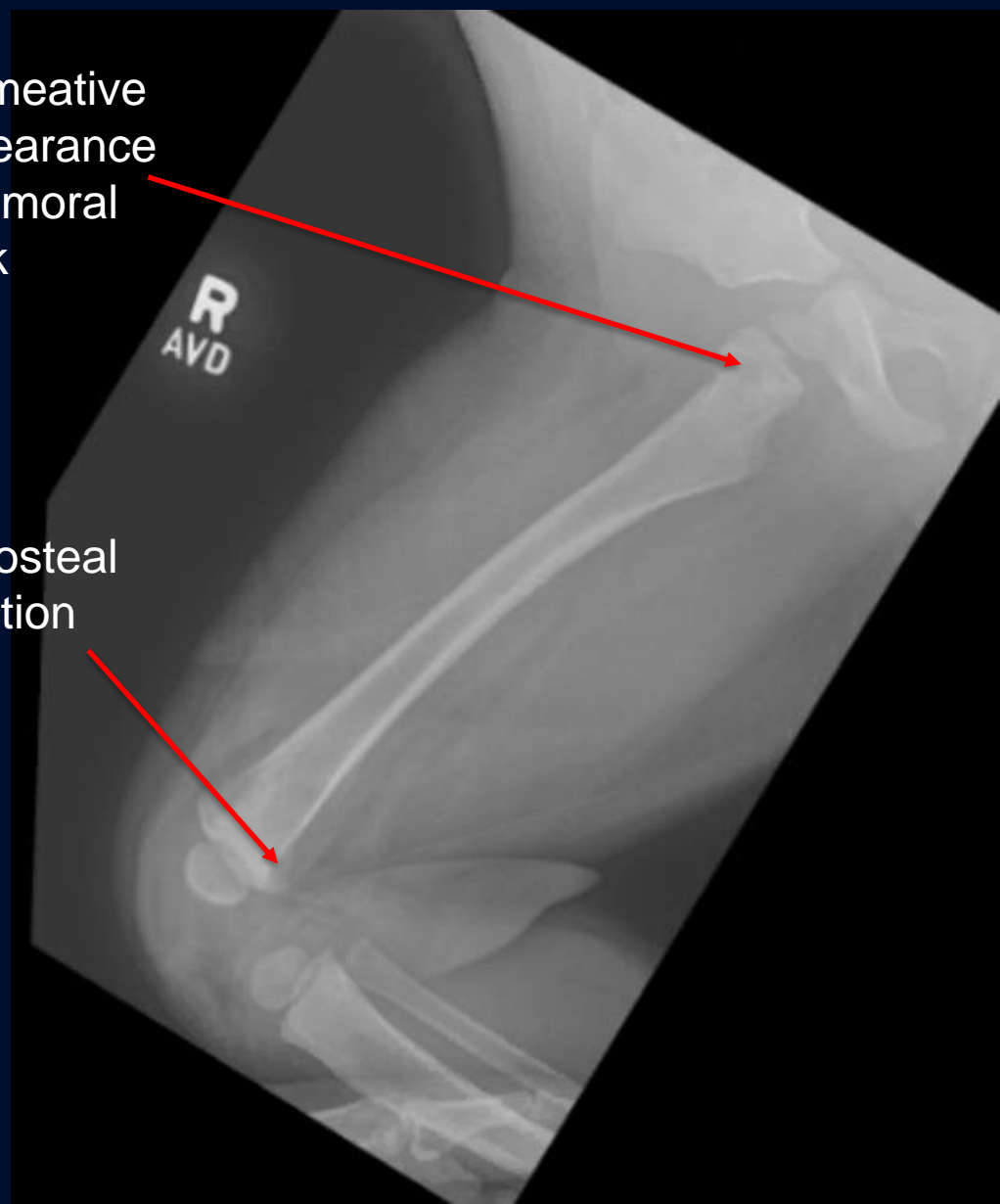
Neuroblastoma

AP / Lateral Radiographs



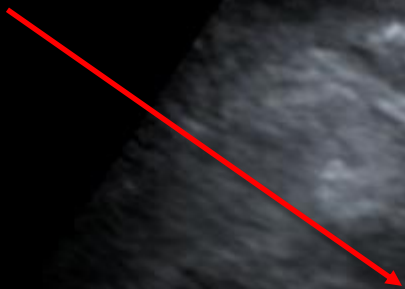
Permeative appearance of femoral neck

Periosteal reaction



Abdominal US

Heterogeneous
lesion



Liver

SIEMENS
6C1 HD
*Abdomen
General
TIS: 0.6
TIB: 0.6
MI: 1.3
25fps
2D - 100%
THI
H5.00 MHz
-7dB DR70
ASC 3
DTCE M
MapE/ST2



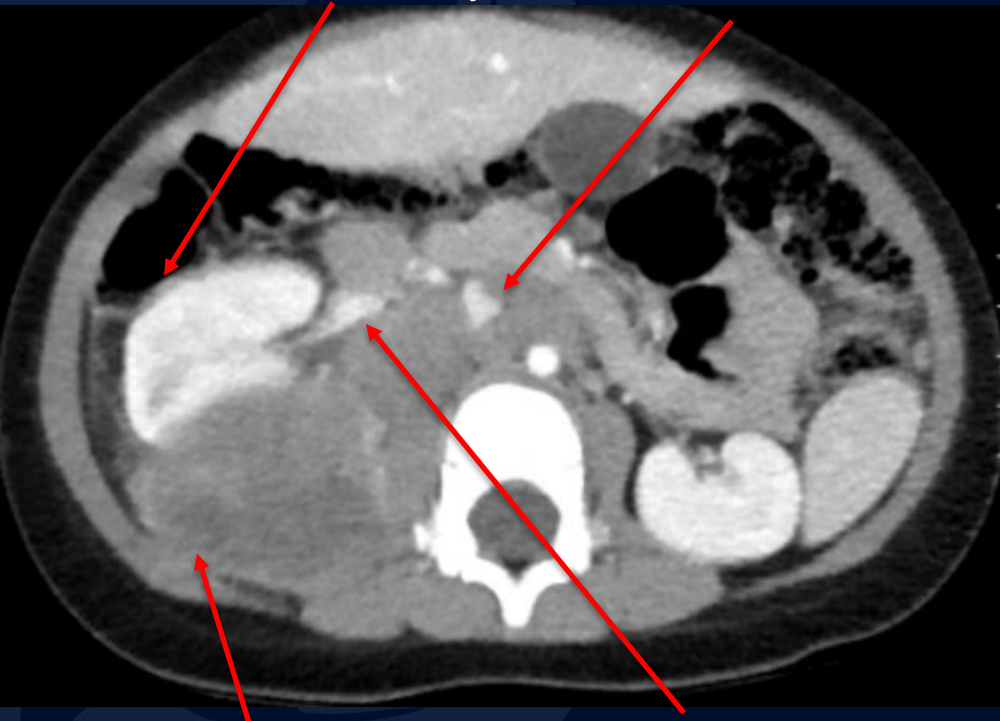
Heterogeneous
lesion

CT IV Contrast

CT IV Contrast

Right kidney displaced
inferolaterally

IVC displaced anteriorly and
compressed, but patent

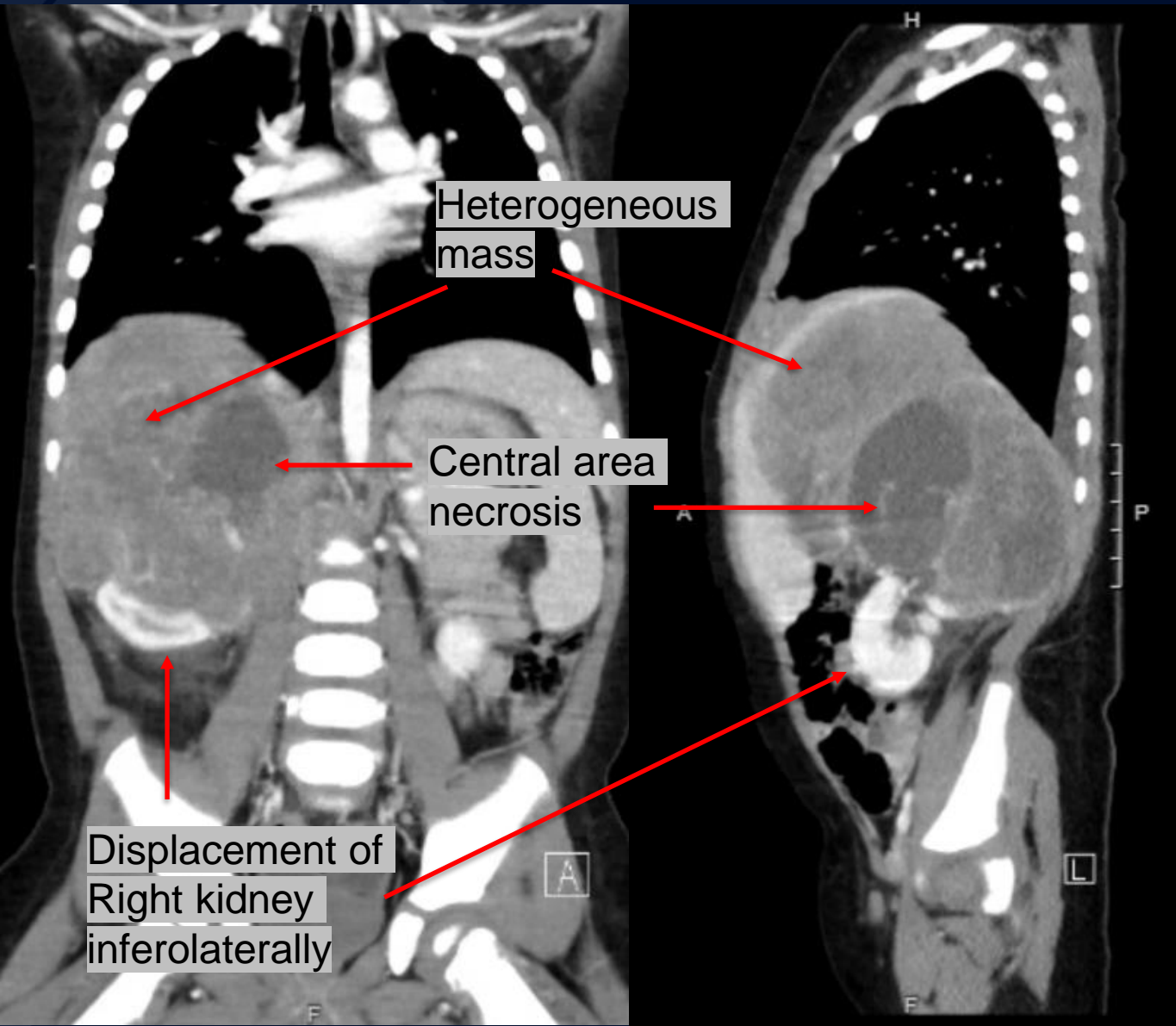


Closely abuts
posterior chest wall;
cannot exclude
invasion

R renal vein compressed
and displaced anteriorly,
but patent

Central area of hypoattenuation,
likely necrosis

CT Contrast



Neuroblastoma

- Median age of diagnosis: 17 months
- Can arise anywhere throughout the sympathetic nervous system
 - Primary sites: adrenal gland, abdominal, thoracic, cervical, pelvic sympathetic ganglia
- Metastasizes to lymph nodes, bone marrow, cortical bone, dura, orbits, liver, skin
 - Lymphatic and hematogenous routes
- Can be sporadic (ALK) or transmitted in germline (ALK or PHOX2B genes)
- Presenting symptoms: abdominal mass, abdominal pain, constipation, proptosis, Horner syndrome, periorbital ecchymoses, back pain, bladder dysfunction, systemic symptoms, bone pain, anemia, HTN, limp, etc.
 - Symptoms depend on primary site and metastases

Imaging Findings

- Plain radiograph: non-specific, intrathoracic soft tissue mass or intra-abdominal mass displacing adjacent organs
 - Bone metastases: ill-defined, lucent (osteolytic), periosteal reaction or metaphyseal lucency
- US: heterogenous mass w/ internal vascularity
 - Area of necrosis that appear as regions of low echogenicity
 - +/- calcification
- CT: heterogenous with potential calcifications
 - Areas of necrosis are low attenuation
 - Adjacent organs usually displaced
 - Lymph node enlargement
- MRI
 - T1: heterogenous and isointense to hypointense
 - T2: heterogeneous + hyperintense; cystic/necrotic areas high intensity

References

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