3-year-old boy presents with incidental palpable mass while being bathed

John J. DeBevits IV, MD

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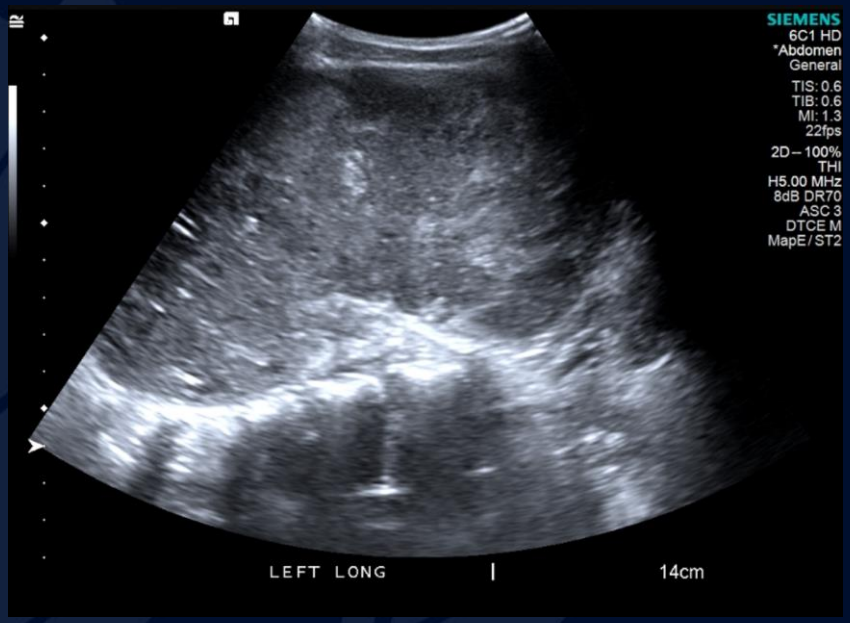

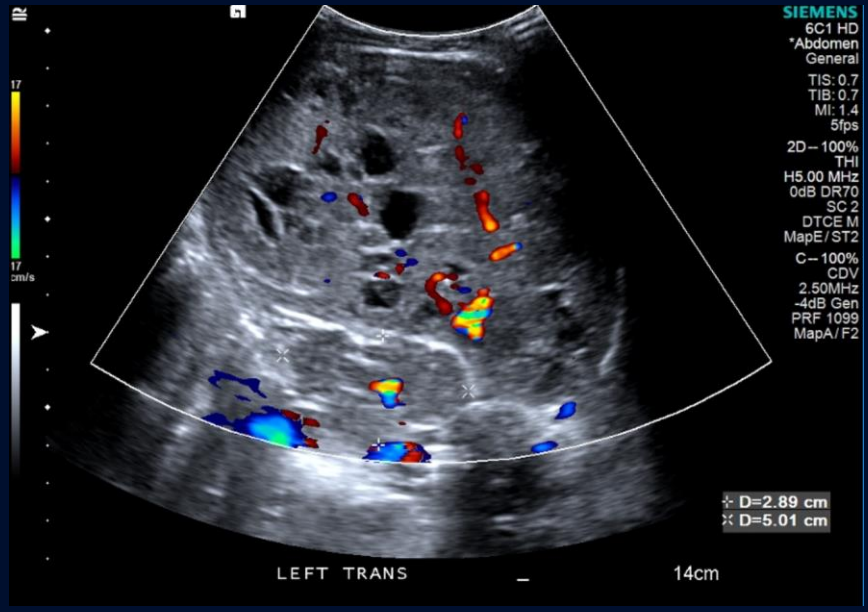

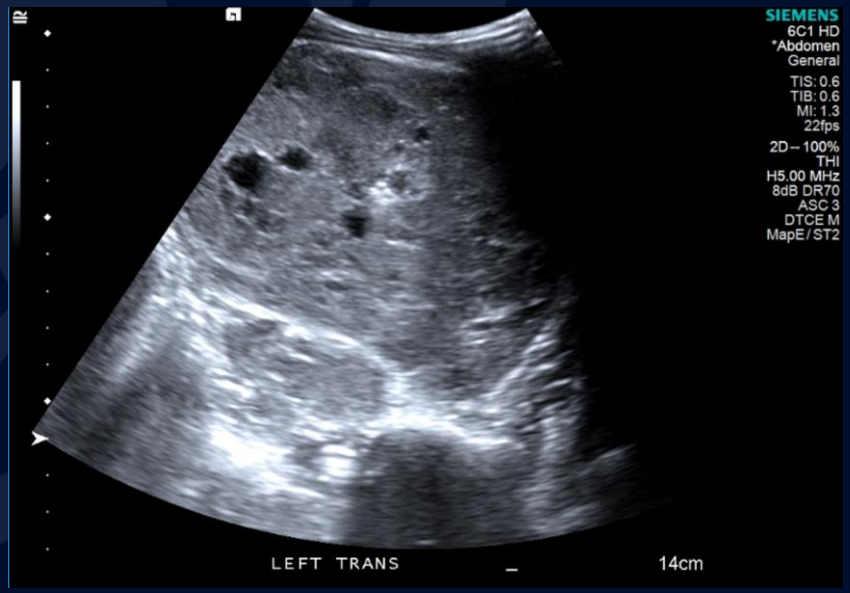

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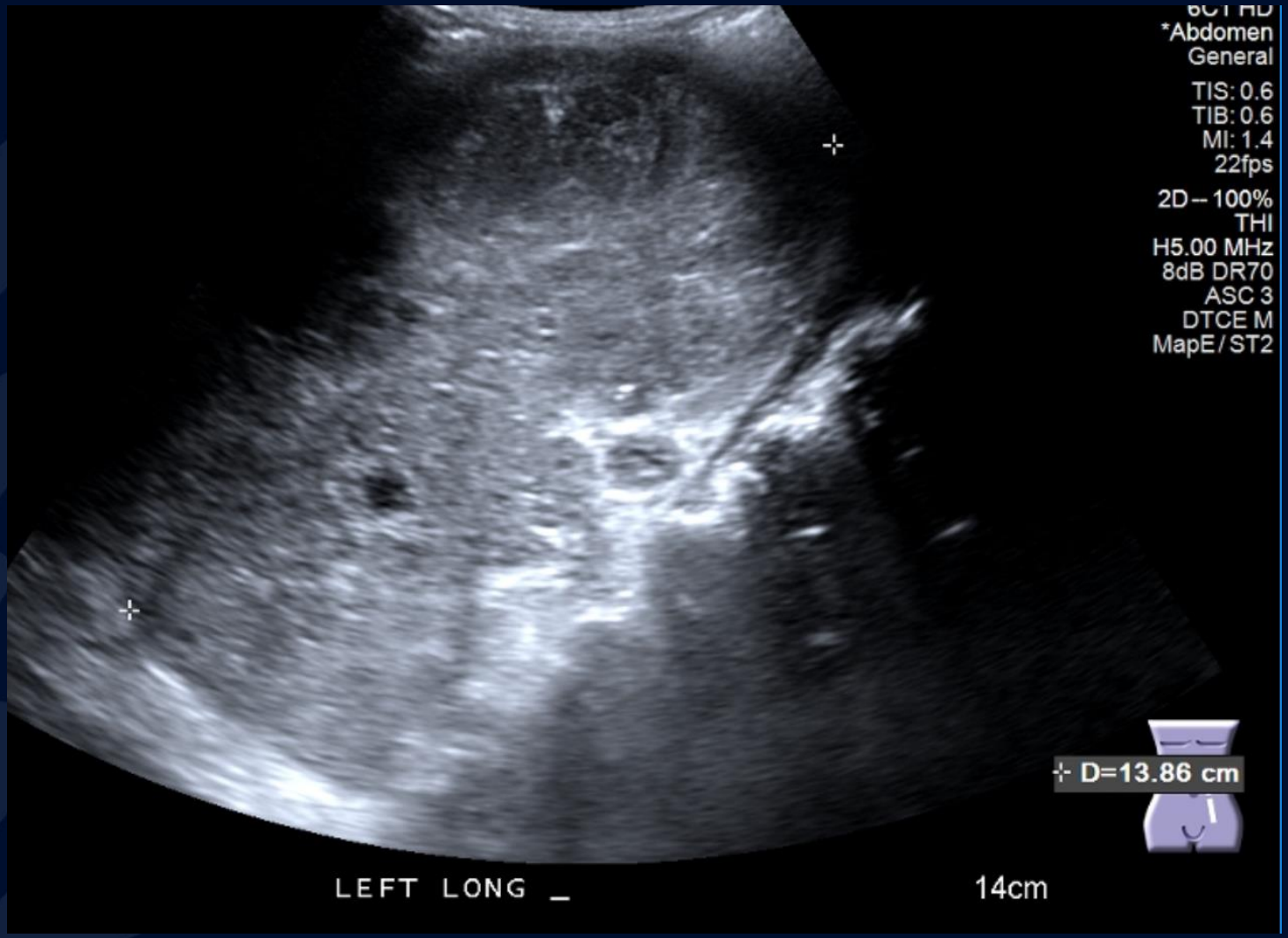

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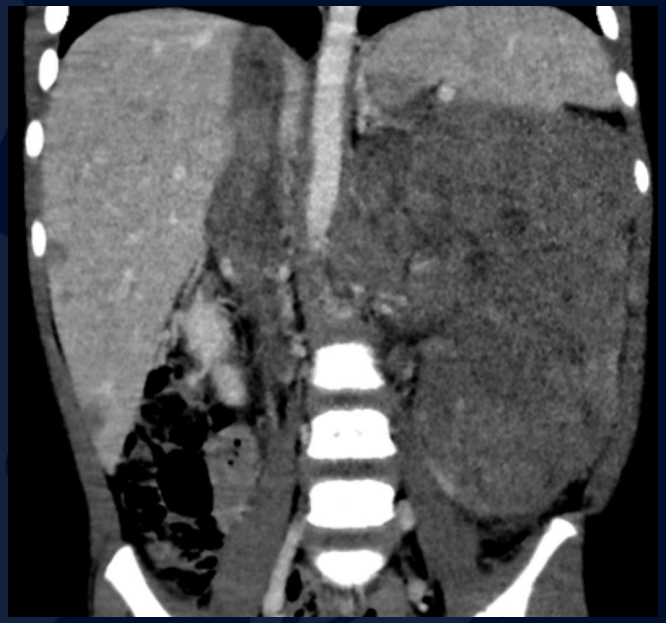

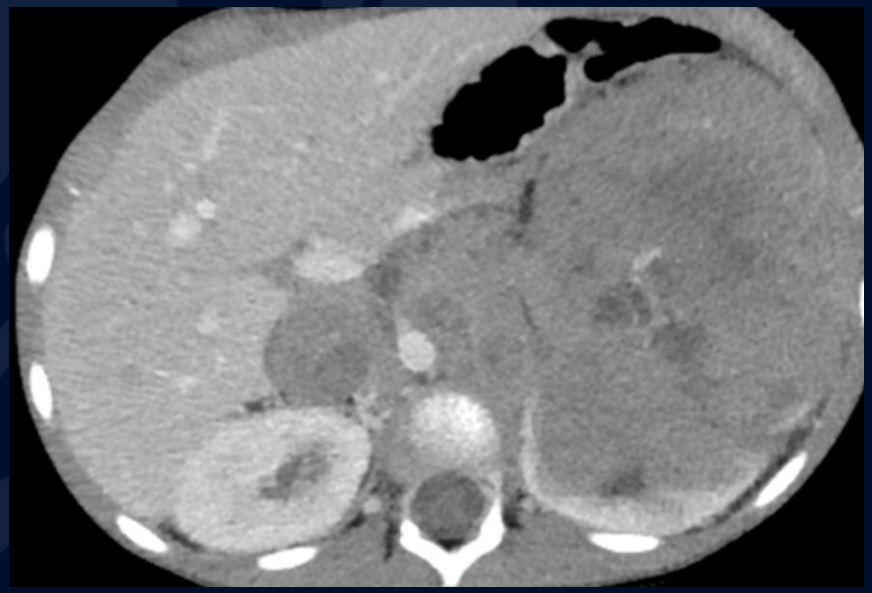

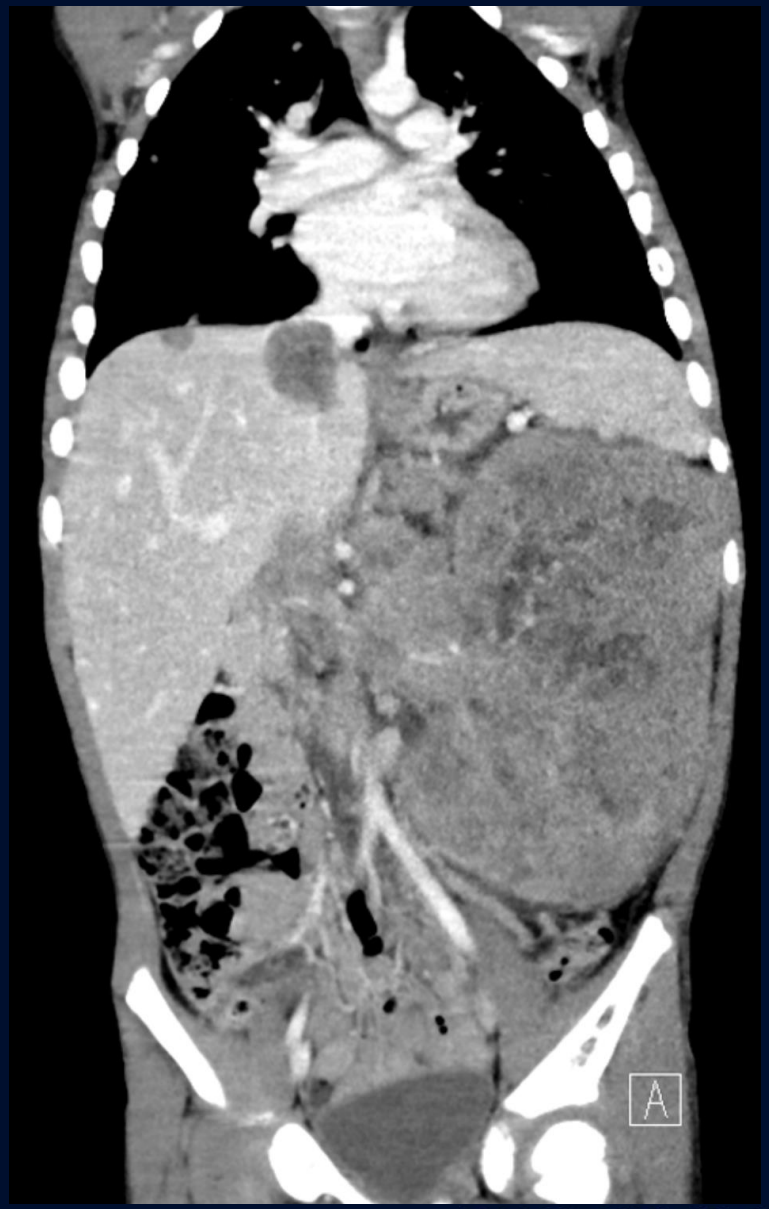

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Wilms Tumor

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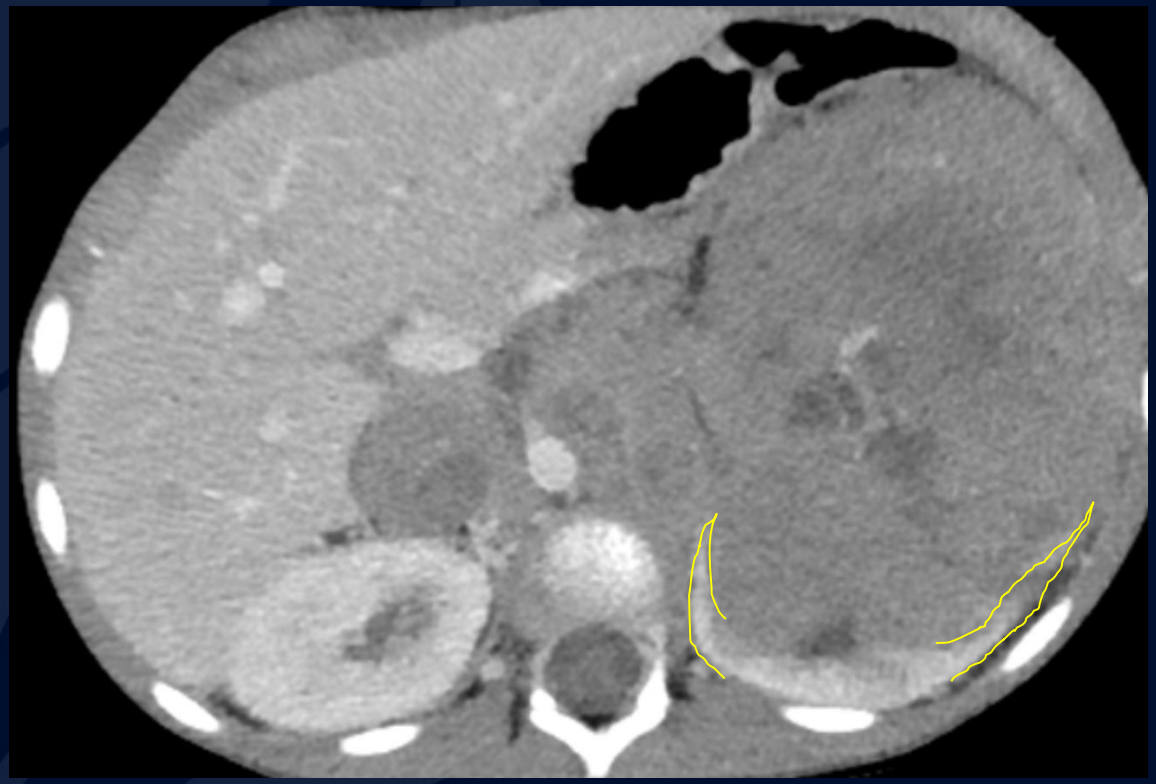
Findings



“Claw sign” confirming the parenchymal origin of the mass within the left kidney

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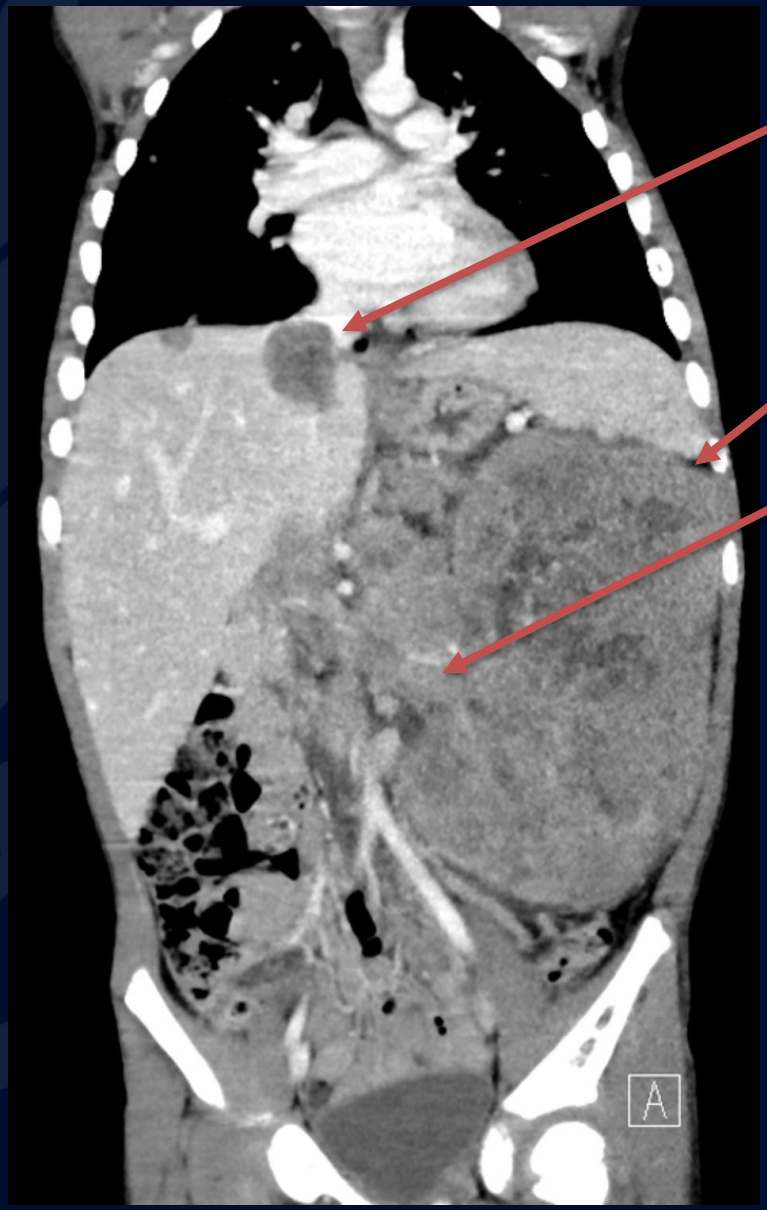
Findings



Tumor thrombus within IVC

LARGE, heterogeneously enhancing mass

Tumor thrombus within L renal vein

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Wilms Tumor (Nephroblastoma)

Third most common childhood renal mass: hydronephrosis, multicystic dysplastic kidney, Wilms Tumor

Most common malignant abdominal neoplasm in children 1 to 8 years of age

Third most common malignancy in childhood: acute leukemia, intra cranial malignancies, Wilms tumor

Peak incidence 3-4 years of age, 80% before age 5 Bilateral in 4-13%

Associated with other congenital abnormalities and syndromes (10 – 14%)
- Cryptorchidism (2.8% of cases)
- Hemihypertrophy (2.5%)
- Hypospadias (1.8%)
- Sporadic aniridia, 33% of sporadic aniridia develop Wilms Tumor

Associated with WAGR syndrome (**W**ilms tumor, **A**niridia, **G**enitourinary abnormalities, mental **R**etardation)

Typically presents as abdominal distention or painless palpable mass

Treatment: complete surgical resection
- Preoperative chemo for unresectable / bilateral tumors or tumor thrombus above hepatic vv.
- Postoperative chemotherapy and radiation

>90% 5-year survival for localized disease

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References

- http://pubs.rsna.org/doi/pdf/10.1148/radiographics.20.6.g00nv051585

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