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WILM'S TUMOR (NEPHROBLASTOMA)





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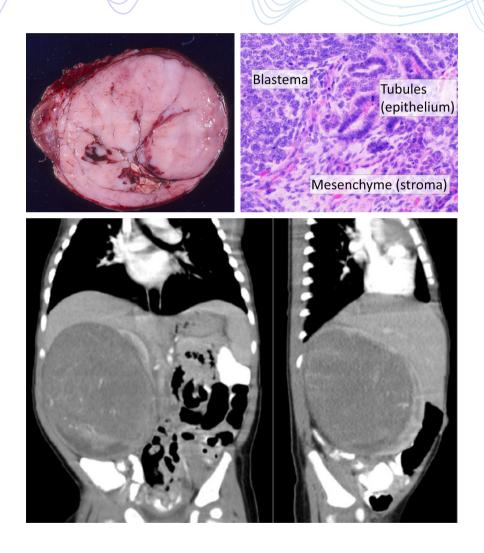
Wilms tumor is a childhood kidney cancer that originates from immature kidney cells. It is the most common renal tumor in children.

Variants:

- Classic Wilms tumor: Dominant form with characteristic triphasic histology.
- Anaplastic Wilms tumor: More aggressive, with higher risk features.
- Diffuse anaplasia: Subset with unfavorable prognosis.



CLINICAL IMPRESSION



Coronal and sagittal section of CT demonstrate a large, heterogeneous mass arising from the right kidney. A smallpart of functioning right kidney is seen to enhance.





RISK FACTORS

- Usually affects children aged 3 to 4 years.
- Abdominal mass is a common presentation.
- Hypertension may occur due to renin secretion by the tumor.
- Fever, hematuria, and abdominal pain are possible symptoms.
- Triad of Intra abdominal mass, Fever, Microscopic hematuria.



INVESTIGATIONS

- Imaging (ultrasound, CT, MRI) for tumor localization and staging.
- Histological examination of biopsy for definitive diagnosis.
- Blood tests: Renal function, complete blood count.

Routes of Spread

- Local invasion into surrounding structures.
- Lymphatic spread to regional lymph nodes.
- Hematogenous spread to lungs and liver.



STAGING

- **Stage I:** Tumor limited to the kidney, completely excised.
- **Stage II:** Tumor extends beyond the kidney, completely excised.
- **Stage III:** Residual tumor remains after surgery or tumor involves nearby structures.
- **Stage IV:** Hematogenous metastasis (e.g., lungs, liver).
- Stage V: Bilateral renal involvement at diagnosis.





MANAGEMENT

Nephrectomy:

Surgical removal of the affected kidney is the primary treatment.

Neoadjuvant Therapy:

Administered before surgery to shrink the tumor.

Adjuvant Therapy:

Given after surgery to target any remaining cancer cells.

Radiation Therapy:

Used in certain cases, particularly for anaplastic Wilms tumor or when there is incomplete surgical removal.





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Question:

Which histological variant of Wilms tumor is associated with a more aggressive behavior?

- A) Classic Wilms tumor
- B) Anaplastic Wilms tumor
- C) Diffuse anaplasia
- D) Clear cell Wilms tumor

Ans: C) Diffuse anaplasia

