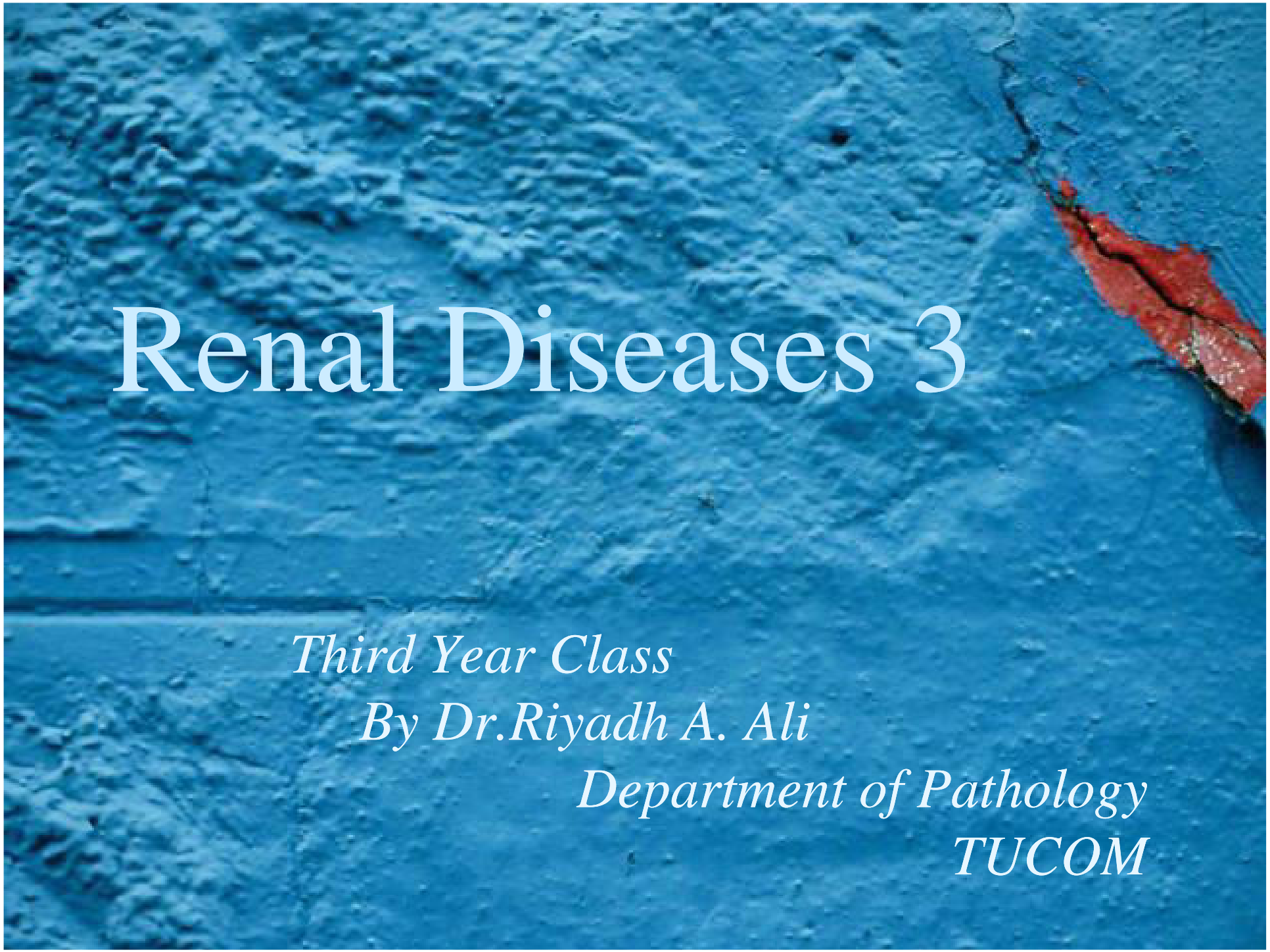
Renal Diseases 3
Third Year Class
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Titles

- Dominant Polycystic Kidney Disease
- Renal cell carcinoma
- Wilm's tumor
- Acute cystitis
- Transitional cell carcinoma.

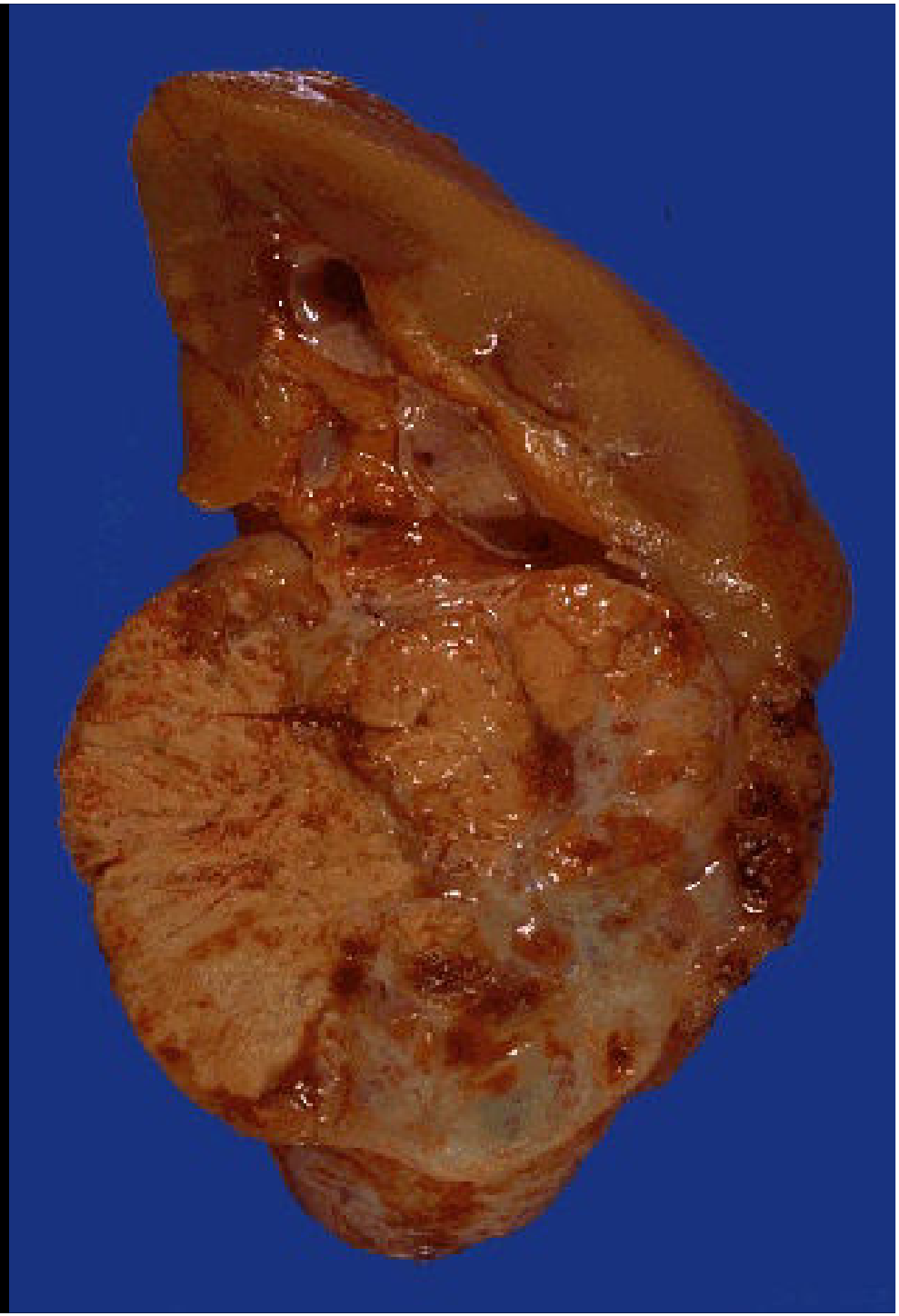
Dominant Polycystic Kidney Disease

The cut surfaces of these kidneys in a patient with DPKD (**Dominant Polycystic Kidney Disease)** reveal that the parenchyma is replaced by large cysts. Note how large these kidneys are in relation to the normal sized transplanted kidney

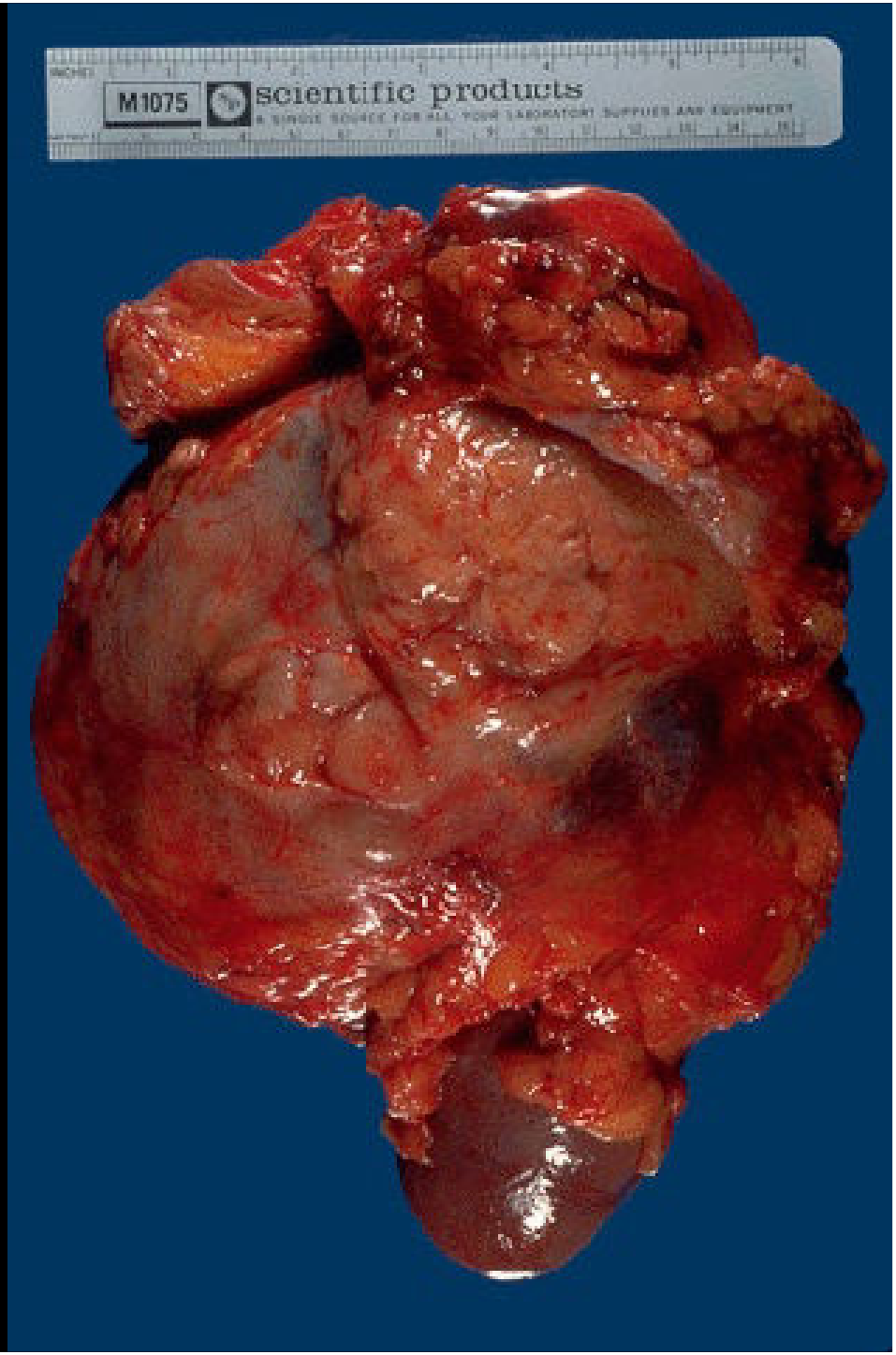
This kidney in a patient with DPKD **Dominant Polycystic Kidney Disease** weighed 3 kilograms cut section reveal that the parenchyma is replaced by large cysts

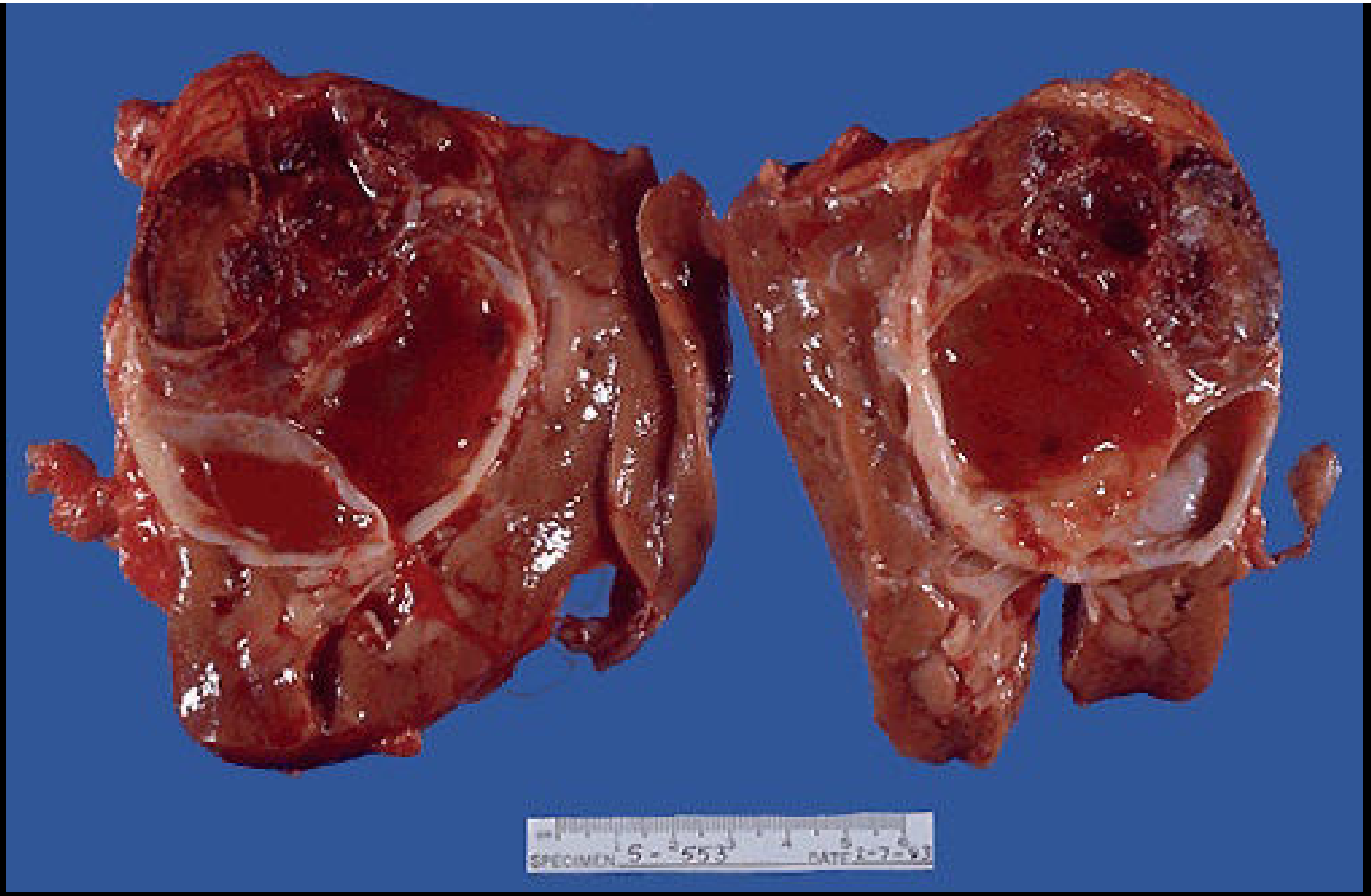
Renal Cell Carcinoma

This is a **renal cell carcinoma** arising in the lower pole of the kidney. It is fairly circumscribed. The cut surface demonstrates a variegated appearance with yellowish areas, white areas, brown areas, and hemorrhagic red areas



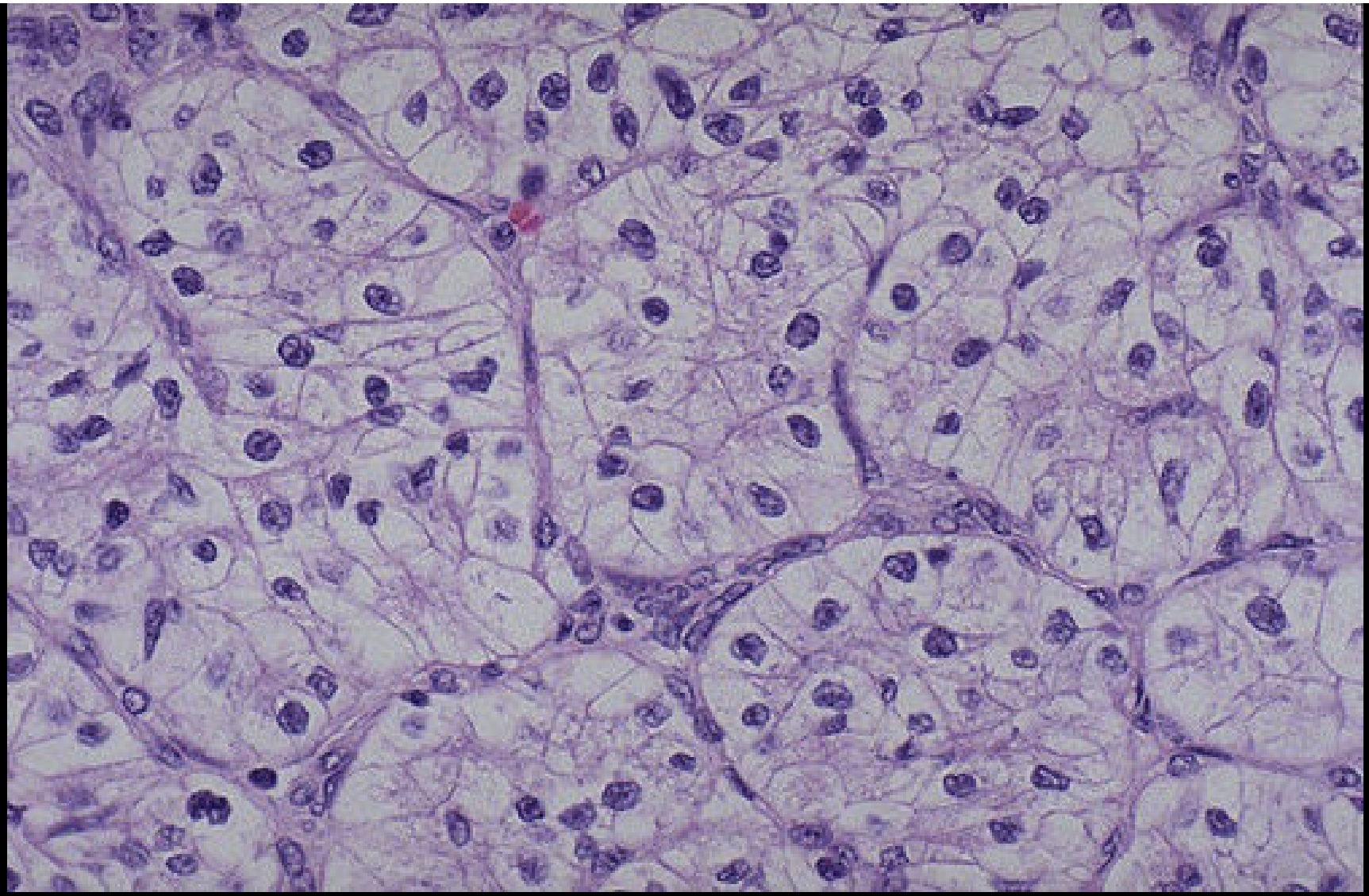
This **renal cell carcinoma** is very large, as indicated by the 15 cm ruler. A portion of normal kidney protrudes at the lower center. This patient was a physician himself and just didn't have any early symptoms.



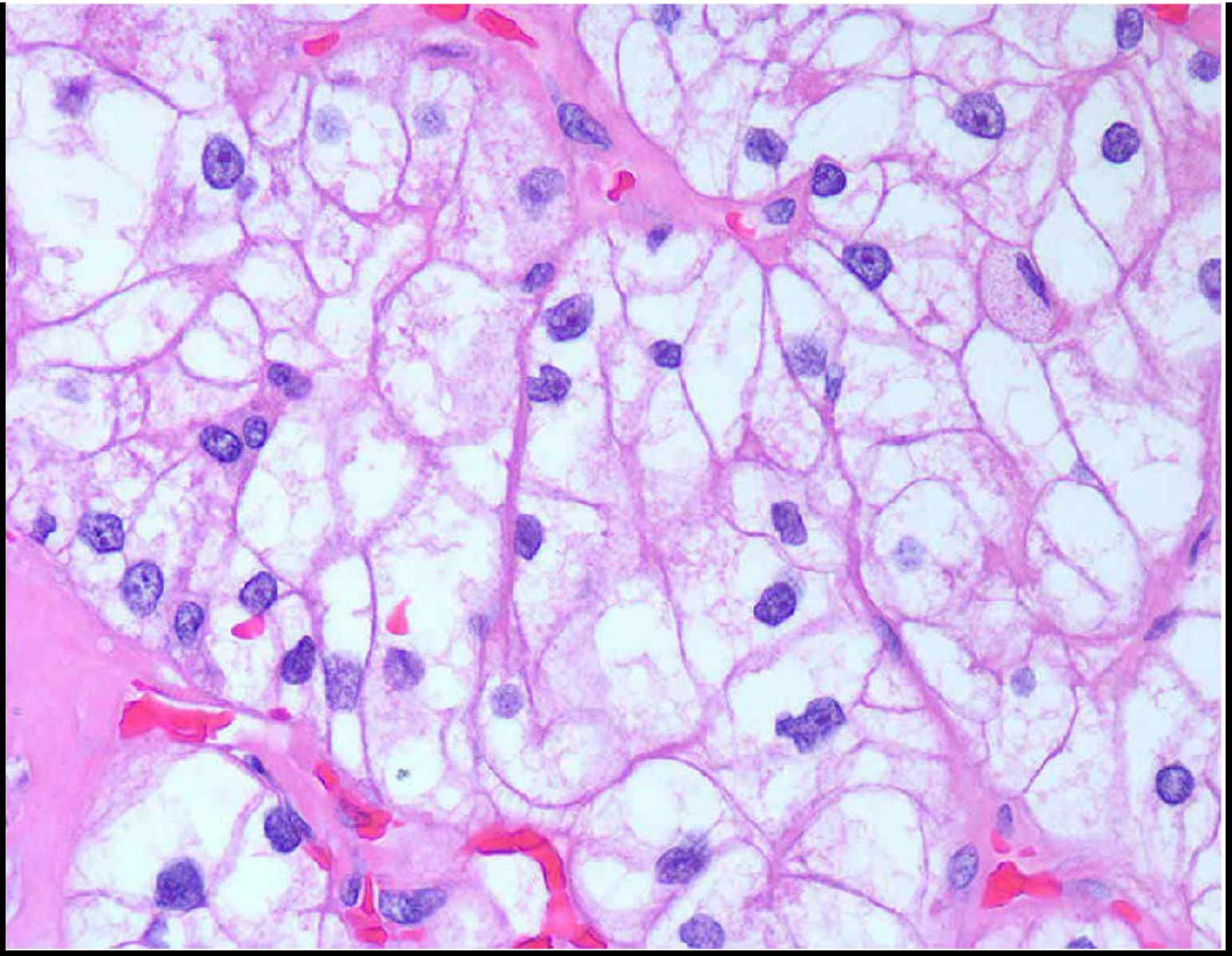


Here is a **renal cell carcinoma** that on sectioning is mainly cystic with extensive hemorrhage

Renal cell carcinomas have a tendency to invade into the renal vein, as shown here at the white arrow in a resected kidney surrounded by adipose tissue



This is the classic histologic appearance of a **renal cell carcinoma**: the neoplastic cells have clear cytoplasm and are arranged in nests with intervening blood vessels. This appearance is why they are often called "clear cell carcinomas".



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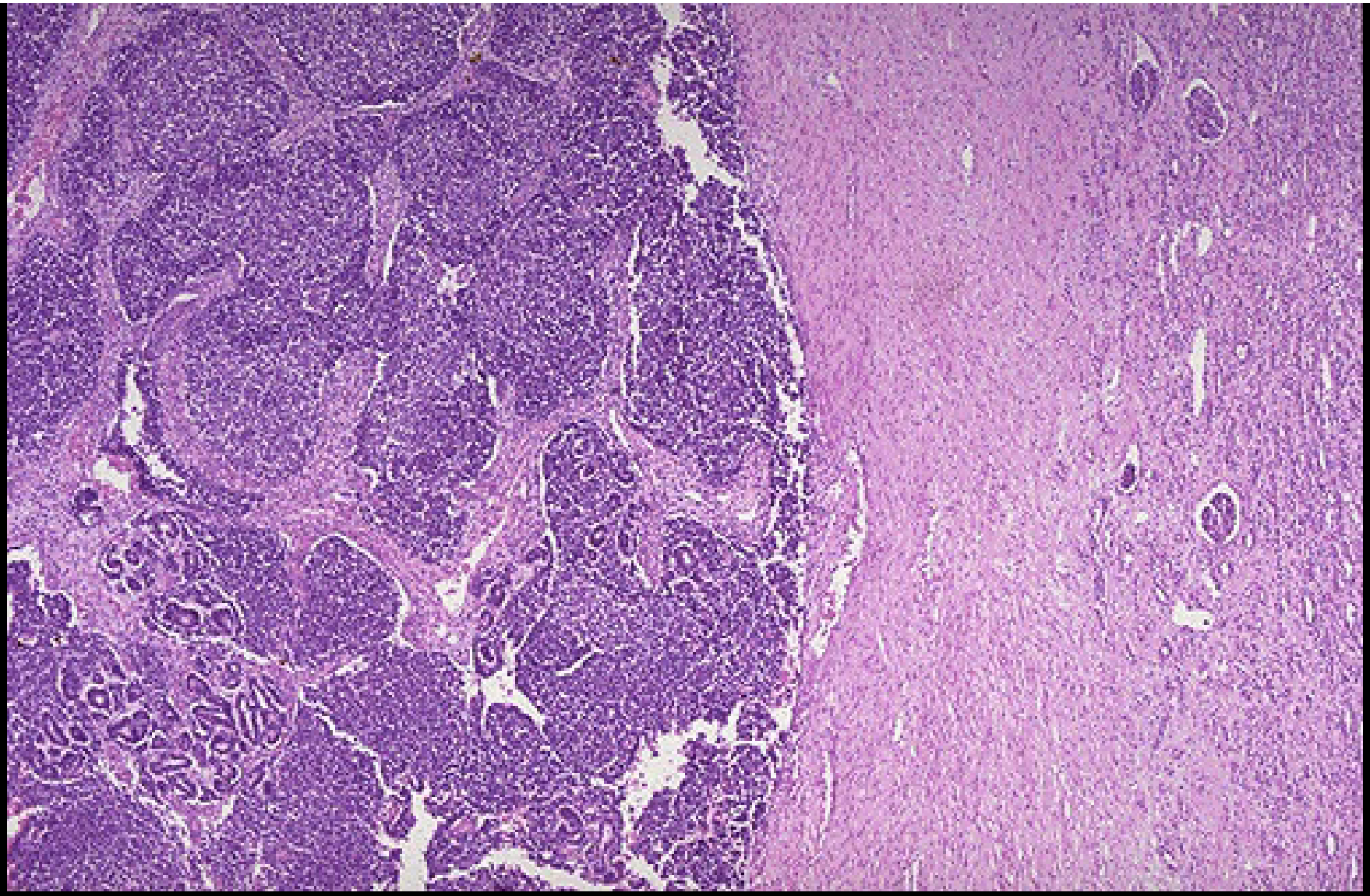
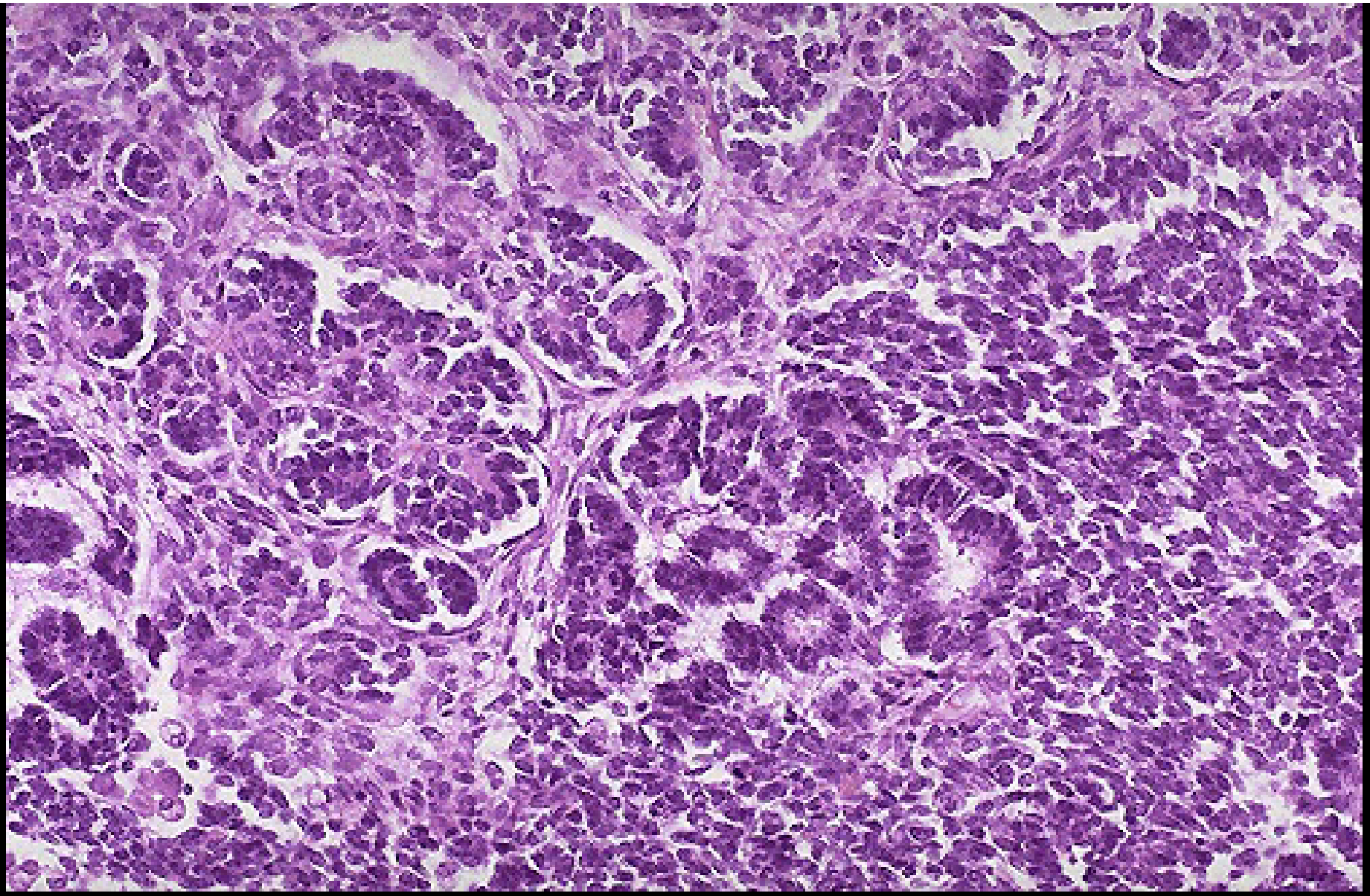
Wilm's Tumor

This small kidney from a 4 year old child contains a lobulated tan-white mass. This is **Wilm's tumor** of the kidney



This is a **Wilm's tumor** that is composed microscopically of nests and sheets of dark blue cells at the left with compressed normal renal parenchyma at the right

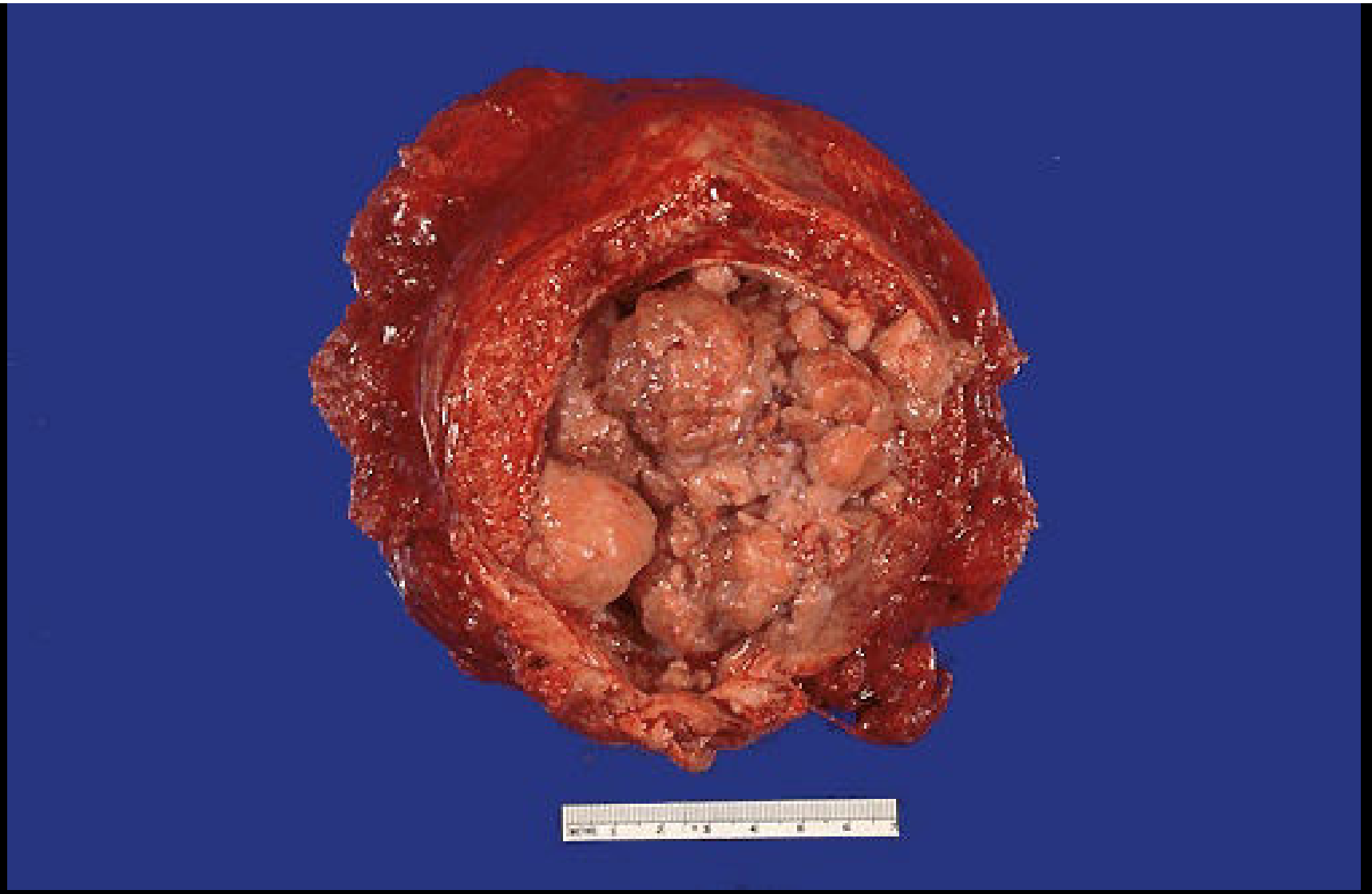


Wilm's tumor resembles the fetal nephrogenic zone of the kidney. The tumor shows attempts to form primitive glomerular and tubular structures.

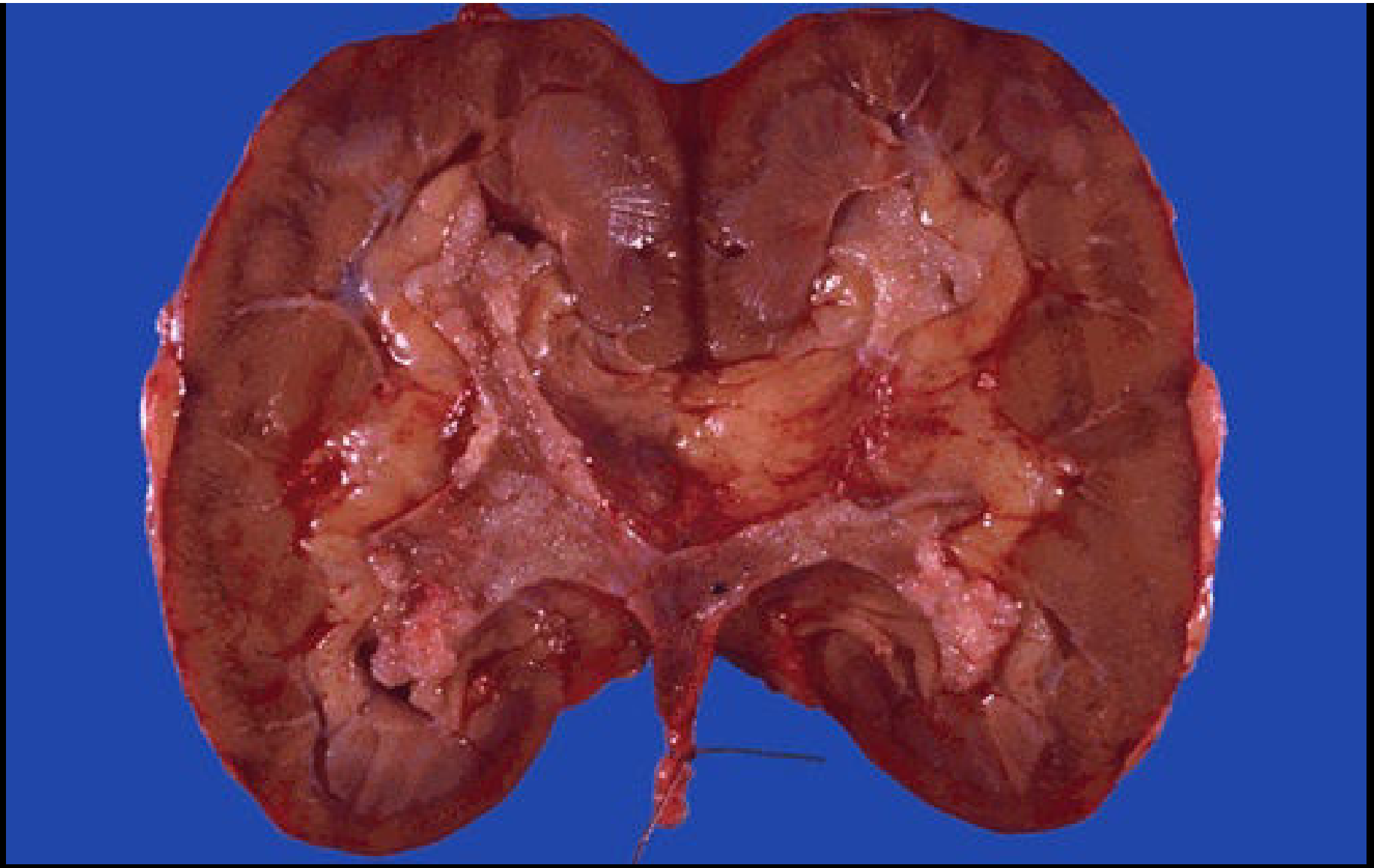
Acute Cystitis

This bladder at autopsy has been opened to reveal areas of hyperemia of the mucosa. **This is acute cystitis.**

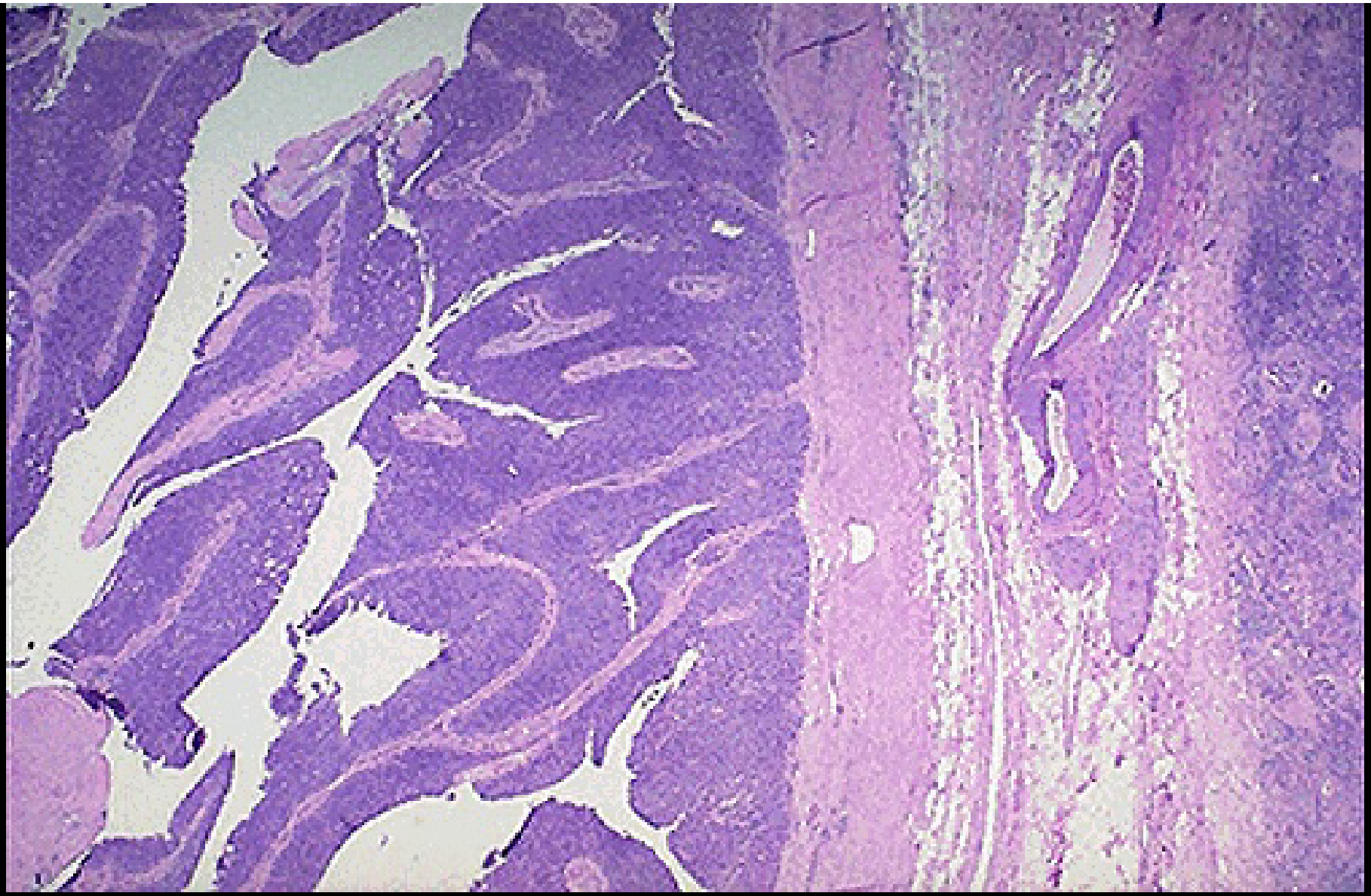
Transitional Cell Carcinoma (TCC)



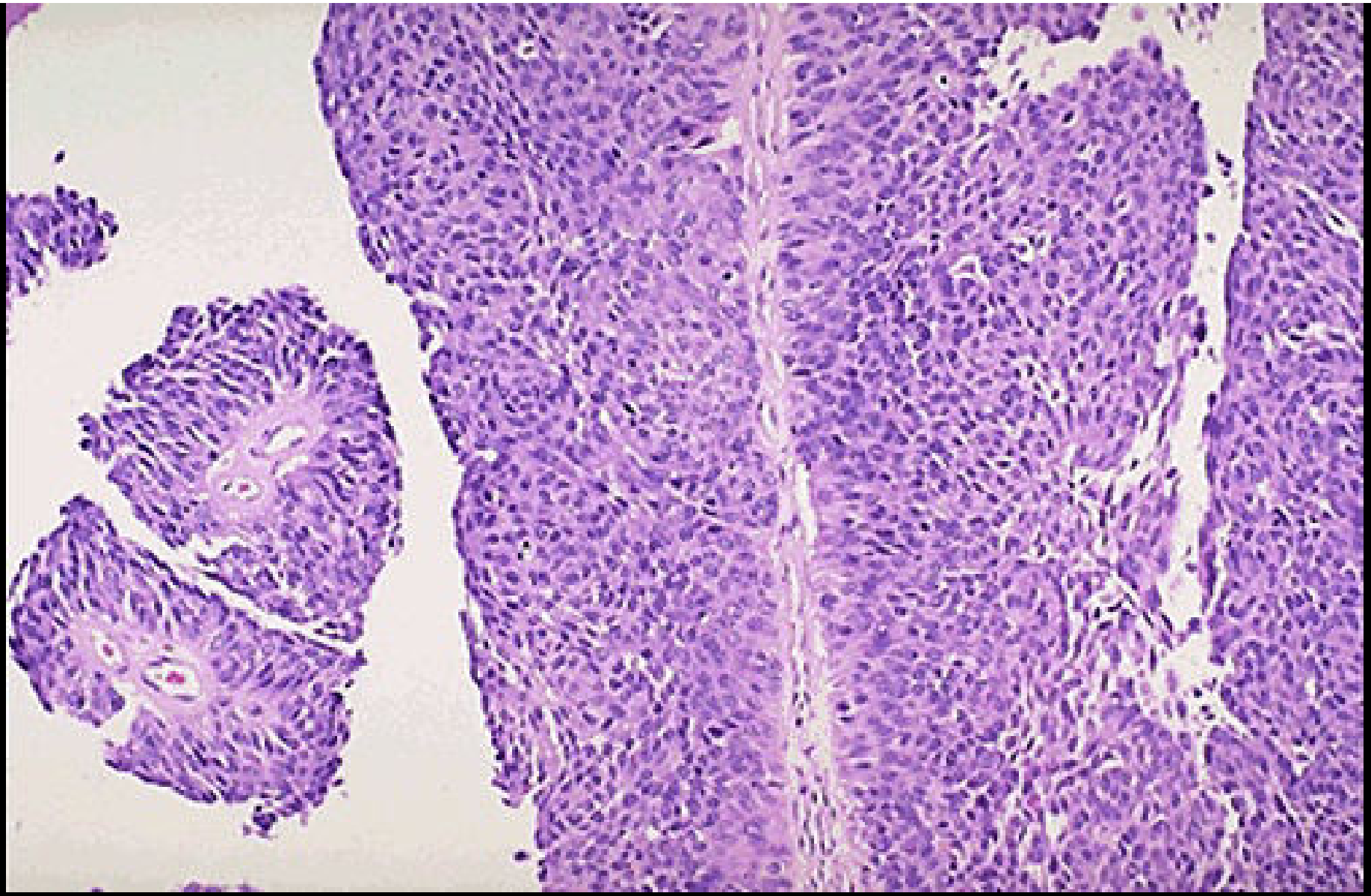
The opened bladder reveals masses of a neoplasm that histologically proved to be **transitional cell carcinoma (TCC).** There is thicking of the wall and mass found to occupy the bladder space with irregular ploypoidal projections of red tan color.



The cut surfaces of the kidney removed surgically here demonstrate normal cortex and medulla, but the calyces show focal papillary tumor masses of **transitional cell carcinoma.**



Transitional cell carcinoma of the urothelium is shown here at low power to reveal the frond-like papillary projections of the tumor above the surface to the left. It is differentiated enough to resemble urothelium, but is a mass. No invasion to the right is seen at this point.



At high power, the **transitional cell carcinoma** does resemble urothelium, but the thickness is much greater than normal and the cells show more pleomorphism