



CALIFORNIA  
TUMOR TISSUE REGISTRY

## **“RENAL TUMORS AND TUMOR-LIKE CONDITIONS”**

**Study Cases, Subscription A**

**April 2005**



**California Tumor Tissue Registry**  
**c/o: Department of Pathology and Human Anatomy**  
**Loma Linda University School of Medicine**  
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**Web site & Case of the Month: [www.cttr.org](http://www.cttr.org)**

**Target audience:**

Practicing pathologists and pathology residents.

**Goal:**

To acquaint the participant with the histologic features of a variety of benign and malignant neoplasms and tumor-like conditions.

**Objectives:**

The participant will be able to recognize morphologic features of a variety of benign and malignant neoplasms and tumor-like conditions and relate those processes to pertinent references in the medical literature.

**Educational methods and media:**

Review of representative glass slides with associated histories.  
Feedback on consensus diagnoses from participating pathologists.  
Listing of selected references from the medical literature.

**Principal faculty:**

Weldon K. Bullock, MD  
Donald R. Chase, MD

**CME Credit:**

Loma Linda University School of Medicine designates this continuing medical education activity for up to 2 hours of Category I of the Physician's Recognition Award of the American Medical Association.  
CME credit is offered for the subscription year only.

**Accreditation:**

Loma Linda University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

**Contributor: LLUMC Pathology Group (pw)  
Loma Linda, CA**

**Case No. 1 - April 2005**

**Tissue from: Lt & Rt Kidney**

**Accession #29902**

**Clinical Abstract:**

After 2 years on hemodialysis for end-stage renal disease due to polycystic kidney disease, this 47-year-old male complained of abdominal pain, nausea and vomiting of blood. Bilateral nephrectomies were performed.

**Gross Pathology:**

Both the 2340 gram left kidney and the 1860 gram right kidney were distorted by hundreds of cysts, varying in size from 0.3 cm to 8.0 cm. Most of the cysts were filled with watery brown fluid, but some contained clotted blood. On each side, the normal architecture was completely effaced by the cysts.

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**Contributor: Phillip C. Gordon, M.D.  
Winter Haven, FL**

**Case No. 2 - April 2005**

**Tissue from: Kidney**

**Accession #29383**

**Clinical Abstract:**

This 59-year-old male sought medical attention due to tiredness, lethargy and vague flank discomfort. CT scan displayed a large renal mass. A right radical nephrectomy was performed.

**Gross Pathology:**

The 1120 gram nephrectomy specimen showed a 5.5 cm hemorrhagic necrotic yellow mass in the kidney and a 1.1 cm diameter white nodule in the accompanying adrenal gland.

**Contributor: LLUMC Pathology Group (ec)**  
**Loma Linda, CA**

**Case No. 3 - April 2005**

**Tissue from: Right kidney**

**Accession #29905**

**Clinical Abstract:**

Twelve years after a left radical nephrectomy for a malignant tumor, this 60-year-old male was found to have a heterogeneous enhancing mass in the lower pole of his right kidney as well as a smaller mass in the upper pole.

**Gross Pathology:**

The 178 gram, 11.0 x 6.5 x 3.7 cm partial kidney specimen had multiple yellow-tan nodules ranging from 0.9 cm to 3.5 cm.

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**Contributor: LLUMC Pathology Group (rc)**  
**Loma Linda, CA**

**Case No. 4 - April 2005**

**Tissue from: Left kidney**

**Accession #29498**

**Clinical Abstract:**

A left kidney mass was discovered in this 63-year-old male. A left radical nephrectomy was performed.

**Gross Pathology:**

This 876 gram, 13.1 x 5.4 x 4.2 cm kidney had a 6.6 x 5.8 x 5.5 cm well-circumscribed red-purple mass within the superior pole.

**Contributor: Jozef Kollin, M.D.**  
**Lakewood, CA**

**Case No. 5 - April 2005**

**Tissue from: Left kidney**

**Accession #29935**

**Clinical Abstract:**

After radiographic studies showed a solid left renal mass, this 67-year-old male underwent a left radical nephrectomy.

**Gross Pathology:**

The 145 gram, 12 x 5.5 x 5.5 cm kidney had a 5.0 x 4.5 x 4.5 cm tan-orange nodule near the lower pole.

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**Contributor: Lauren O'Brien, M.D.**  
**Pasadena, CA**

**Case No. 6 - April 2005**

**Tissue from: Right kidney**

**Accession #29949**

**Clinical Abstract:**

A 25-year-old male with a history of sickle cell trait was admitted for weight loss, flank pain, diarrhea, and sweats. A large right renal mass was found and he underwent right nephrectomy.

**Gross Pathology:**

In the medial upper pole of a 12 x 7 x 5.3 cm kidney was a 4.5 x 4.5 x 3.5 cm tan mass which compressed the calyceal system but did not invade through the renal capsule.

**Contributor: Doug Kahn, M.D.  
Sylmar, CA**

**Case No. 7 - April 2005**

**Tissue from: Left kidney**

**Accession #29933**

**Clinical Abstract:**

Because of a 30 pound weight loss in one month, this 67-year-old male had a CT scan which showed a cystic mass in his left kidney, originally interpreted as an abscess.

**Gross Pathology:**

The 1397 gram nephrectomy specimen showed a 13.0 x 11.0 x 9.0 cm necrotic yellow-tan tumor which invaded the renal capsule and extended through the kidney to encroach upon the renal pelvis.

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**Contributor: LLUMC Pathology Group (kc)  
Loma Linda, CA**

**Case No. 8 - April 2005**

**Tissue from: Right kidney**

**Accession #29945**

**Clinical Abstract:**

After 2 months of abdominal and right flank pain, this 60-year-old male underwent a workup that showed a cystic right retroperitoneal mass by CT scan.

**Gross Pathology:**

The 1654 gram composite resection of kidney and perinephric fat showed a 15.5 x 14.9 x 6.5 cm partially necrotic gray-tan tumor invading the inferior renal pole.

**SPECIAL STUDIES:**

Cytokeratin	negative
S-100	negative
Desmin	negative
Myogenin	negative
HMB45	negative
LCA	negative
CD30	negative
CD31	positive

**Contributor: Kenneth A. Frankel, M.D.**  
**Covina, CA**

**Case No. 9 - April 2005**

**Tissue from: Kidney**

**Accession #29255**

**Clinical Abstract:**

This 72-year-old male was found to have a renal mass.

**Gross Pathology:**

This was a 13.0 cm well-circumscribed mass that occupied two-thirds of the kidney.

**SPECIAL STUDIES:**

CD99	positive
BCL-2	positive
CD34	negative
Keratin	negative

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**Contributor: LLUMC Pathology Group (cz)**  
**Loma Linda, CA**

**Case No. 10 - April 2005**

**Tissue from: Left kidney**

**Accession #29240**

**Clinical Abstract:**

Work-up for gross hematuria showed this 79-year-old female to have a left renal mass which extended into the left renal vein and the inferior vena cava. A radical nephrectomy was performed. Past surgical history included a hysterectomy (reason not stated) 22 years earlier.

**Gross Pathology:**

The 388 gram nephrectomy specimen was 18.0 x 10.0 x 6.0 cm. The lower pole contained an irregular, infiltrative 7.0 x 6.0 x 5.5 cm firm tan tumor. The tumor extended from the renal parenchyma into the collecting system and into the renal vein.

**SPECIAL STUDIES:**

Vimentin	diffuse 4+ positivity
LMW keratin (CAM5.2)	moderate 3-4+ staining of cells around blood vessels and at the periphery of tumor lobules
S100	essentially negative (rare single positive cells)
Epithelial membrane antigen	largely negative (rare 1+ positive spindled cells)
Desmin	negative
Estrogen receptor	3+ diffuse nuclear positivity
Progesterone receptor	3+ diffuse nuclear positivity