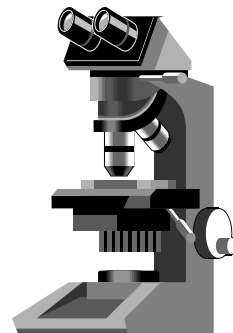


CALIFORNIA
TUMOR TISSUE REGISTRY

GENITOURINARY PATHOLOGY

Minutes – Subscription B

May 2009



SUGGESTED READING (General Topics from Recent Literature):

- Diffuse Myogenin Expression by Immunohistochemistry Is an Independent Marker of Poor Survival in Pediatric Rhabdomyosarcoma. A Tissue Microarray Study of 71 Primary Tumors Including Correlation With Molecular Phenotype. Heerema-McKenney A, Wijnaendts LCD, et al. *Am J Surg Pathol* 2008; 32:1513-1522.
- Early Barrett's Carcinoma With "Low-Risk" Submucosal Invasion. Long-Term Results of Endoscopic Resection With a Curative Intent. Manner H, May A, et al. *Am J Gastroenterol* 2008; 103:2589-2597.
- Expression of p63 in Anaplastic Large Cell Lymphoma But Not in Classical Hodgkin's Lymphoma. Gualco G, Weiss LM and Bacchi CE. *Hum Pathol* 2008; 39:1505-1510.
- Lymphomas Involving the Breast. A Study of 106 Cases Comparing Localized and Disseminated Neoplasms. Talwalkar SS, Miranda RN, et al. Lymphomas Involving the Breast. A Study of 106 Cases Comparing Localized and Disseminated Neoplasms. *Am J Surg Pathol* 2008; 32:1299-1309.
- The Utility of PAX-2 in Distinguishing Metastatic Clear Cell Renal Cell Carcinoma from Its Morphologic Mimics. An Immunohistochemical Study with Comparison to Renal Cell Carcinoma Marker. Gokden N, Gokden M, et al. *Am J Surg Pathol* 2008; 32:1462-1467.

California Tumor Tissue Registry
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FILE DIAGNOSES

CTTR Subscription B

May 2009

Case 1:

Squamous cell carcinoma, penis
T-76000, M-80703

Case 2:

Angiomyolipoma, kidney
T-71000, M-88610

Case 3:

Clear cell renal cell carcinoma, kidney
T-71000, M-83123

Case 4:

Papillary renal cell carcinoma, kidney
T-71000, M-80503

Case 5:

Mucinous tubular and spindle cell carcinoma, kidney
T-71000, M80323

Case 6:

Wilms tumor, blastemal-rich kidney
T-71000, M-89603

Case 7:

Urothelial carcinoma, bladder
T-74000, M-81203

Case 8:

Invasive urothelial carcinoma with squamous differentiation, kidney
T-71000, M-81203

Case 9:

Sperm granuloma with necrotizing granulomatous inflammation
T-78000, M-44180

Case 10:

Angiosarcoma, kidney
T-71000, M-91203

Canoga Park - Squamous cell carcinoma
Glendale - Squamous cell carcinoma
Loma Linda - Squamous carcinoma, penis
San Diego (Naval Medical Center) - Squamous cell carcinoma
San Diego (Pacific Pathology, Inc.) - Invasive squamous cell carcinoma (?cuniculatum) (1); Squamous carcinoma, verruciform (1)
Woodland Hills - Invasive, moderately differentiated, keratinizing squamous cell carcinoma
Florida (Naples Pathology Associates) - Invasive squamous cell carcinoma
Georgia, Decatur - Squamous cell carcinoma, keratinizing
Illinois (Heartland Regional Medical Center) - Invasive squamous cell carcinoma
Kansas (Coffeyville Regional Medical Center) - Infiltrating squamous cell carcinoma
Kansas (Peterson Laboratory Services) - Squamous cell carcinoma, grade I
Louisiana (LSU-HSU) - Squamous cell carcinoma, keratinizing
Maryland (University of Maryland) - Squamous cell carcinoma
Michigan (Pinkus Dermatopathology) - Invasive squamous cell carcinoma
Michigan (St. Mary's Hospital) - Squamous cell carcinoma
Mississippi (University of Mississippi Medical Center) - Squamous cell carcinoma
New York (Albany Medical Center) - Squamous cell carcinoma
New York (St. Lukes Roosevelt Hospital) - Squamous cell carcinoma (1); Invasive squamous cell carcinoma, keratinizing (1)
New York (St. Joseph Hospital) - Squamous cell carcinoma
Ohio (University of Toledo Medical Center) - Squamous cell carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Squamous carcinoma
Pennsylvania (Drexel University College of Medicine) - Invasive keratinizing squamous cell carcinoma
Pennsylvania (Fox Chase Cancer Center) - AJ malformation
Tennessee, Knoxville - Squamous cell carcinoma
Texas, Crystal Beach - Squamous cell carcinoma
Texas (Scott & White Memorial Hospital) - Invasive squamous cell carcinoma
Utah (University of Utah Health Sciences) - Squamous cell carcinoma, invasive, moderately differentiated
Wisconsin (St. Mary's Hospital) - Squamous cell carcinoma penile
Washington, Bothell - Squamous cell carcinoma
Canada (Pasqua Hospital) - Squamous cell carcinoma
Ireland (Mater Hospital, Dublin) - Invasive squamous cell carcinoma
Japan (Asahi General Hospital) - Squamous cell carcinoma
Japan (Shizuoka Tokushukai Hospital) - Warty carcinoma
Puerto Rico (University of Puerto Rico) - Squamous cell carcinoma, keratinizing, well-differentiated
Spain (Provisa Medical Center) - Squamous cell carcinoma
The Netherlands, Amstelveen - Keratinizing squamous cell carcinoma
United Kingdom (John Radcliffe Hospital) - Squamous cell carcinoma, penis

Case 1 - Diagnosis:

Squamous cell carcinoma, penis
T-76000, M-80703

Case 1 - References:

Saibishkumar EP, Crook J, and Sweet J. Neonatal Circumcision and Invasive Squamous Cell Carcinoma of the Penis. A Report of 3 Cases and a Review of the Literature. *Can Urol Assoc J* 2008; 2(1):39-42.
Korets R, Koppie TM, Snyder ME, et al. Partial Penectomy for Patients with Squamous Cell Carcinoma of the Penis. The Memorial Sloan –Kettering Experience. *Ann Surg Oncol* 2007; 14(12):3614-3619.
Velazquez EF, Barreto JE, Rodriguez I, Piris A, et al. Limitations in the Interpretation of Biopsies in Patients with Penile Squamous Cell Carcinoma. *Int J Surg Pathol* 2004; 12(2):139-146.
Adeyoju AB, Thornhill J, Corr J, et al. Prognostic Factors in Squamous Cell Carcinoma of the Penis and Implications for Management. *Br J Urol* 1997; 80(6):937-939.

Maiche AG, Pyrhonen S and Karkinen M. Histological Grading of Squamous Cell Carcinoma of the Penis. A New Scoring Sysem. *Br J Urol* 1991; 67(5):522-526.

Case No. 2, Accession No. 30905

May 2009

Canoga Park - Angiomyolipoma
Glendale - Angiomyolipoma
Loma Linda - Variant of renal cell carcinoma
San Diego (Naval Medical Center) - Angiomyolipoma
San Diego (Pacific Pathology, Inc.) - Angiomyolipoma (2)
Woodland Hills - Angiomyolipoma
Florida (Naples Pathology Associates) - Angiomyolipoma
Georgia, Decatur - Angiomyolipoma
Illinois (Heartland Regional Medical Center) - Angiomyolipoma
Kansas (Coffeyville Regional Medical Center) - Angiomyolipoma
Kansas (Peterson Laboratory Services) - Angiomyolipoma
Louisiana (LSU-HSU) - Angiomyolipoma
Maryland (University of Maryland) - Angiomyolipoma
Michigan (Pinkus Dermatopathology) - Angiomyolipoma
Michigan (St. Mary's Hospital) - Angiomyolipoma
Mississippi (University of Mississippi Medical Center) - Angiomyolipoma
New York (Albany Medical Center) - Angiomyolipoma
New York (St. Lukes Roosevelt Hospital) - Angiomyolipoma
New York (St. Joseph Hospital) - Angiomyolipoma, kidney
Ohio (University of Toledo Medical Center) - Angiomyolipoma
Pennsylvania (Conemaugh Memorial Medical Center) - Angiomyolipoma
Pennsylvania (Drexel University College of Medicine) - Angiomyolipoma
Tennessee, Knoxville - Angiomyolipoma
Texas, Crystal Beach - Angiomyolipoma
Texas (Scott & White Memorial Hospital) - Angiomyolipoma
Utah (University of Utah Health Sciences) - Angiomyolipoma
Wisconsin (St. Mary's Hospital) - Angiomyolipoma
Washington, Bothell - Metastatic melanoma
Canada (Pasqua Hospital) - Angiomyolipoma
Ireland (Mater Hospital, Dublin) - Angiomyolipoma
Japan (Asahi General Hospital) - Angiomyolipoma
Japan (Shizuoka Tokushukai Hospital) - Angiomyolipoma
Puerto Rico (University of Puerto Rico) - Angiomyolipoma
Spain (Provisa Medical Center) - Angiomyolipoma
The Netherlands, Amstelveen - Sarcomatoid adenocarcinoma, penis
United Kingdom (John Radcliffe Hospital) - Angiomyolipoma

Case 2 - Diagnosis:

Angiomyolipoma, kidney
T-71000, M-88610

Case 2 – References:

- Sandstrom CK, Pugsley J and Mitsumori LM. Renal Angiomyolipoma with Nontraumatic Pulmonary Fat Embolus. *AJR Am J Roentgenol* 2009; 192(6):W275-276.
- Granata A, Basile A, Figuera M, et al. Spontaneous Retroperitoneal Hemorrhage Due to Massive Rupture of Renal Angiomyolipoma Treated with Nephrectomy. An Unusual Onset of Tuberous Sclerosis Complex. *Clin Nephrol* 2009; 71(4):441-444.
- Singh K, Pai RR, Kini H, et al. Cutaneous Angiomyolipoma. *Indian J Pathol Microbiol* 2009; 52(2):242-243.
- Lee CH, Kim JH, Yang DH, et al. Ileal Angiomyolipoma Manifested by Small Intestinal Intussusception. *World J Gastroenterol* 2009; 15(11):1398-1400.

Lucky MA, Shingler SN and Stephenson RN. A Case Report of Spontaneous Rupture of a Renal Angiomyolipoma in a Post-Partum 21-Year-Old Patient. *Arch Gynecol Obstet* 2009; Feb 15.

Case No. 3, Accession No. 30933

May 2009

Canoga Park - Clear cell renal cell carcinoma

Glendale - Renal cell carcinoma

Loma Linda - Renal cell carcinoma, classic

San Diego (Naval Medical Center) - Clear cell renal cell carcinoma

San Diego (Pacific Pathology, Inc.) - Renal cell carcinoma, predominantly clear cell type, with focal granular cell type (1); Clear cell renal cell carcinoma (1)

Woodland Hills - Clear cell renal cell carcinoma, Grade II

Florida (Naples Pathology Associates) - Renal cell carcinoma, clear cell type

Georgia, Decatur - Conventional/clear cell renal cell carcinoma

Illinois (Heartland Regional Medical Center) - Renal cell carcinoma, clear cell type

Kansas (Coffeyville Regional Medical Center) - Renal cell (clear cell) carcinoma

Kansas (Peterson Laboratory Services) - Renal cell carcinoma, clear cell type, grade 2/4

Louisiana (LSU-HSU) - Clear cell renal cell carcinoma, grade 2

Maryland (University of Maryland) - Renal cell carcinoma, clear cell type

Michigan (Pinkus Dermatopathology) - Clear cell renal cell carcinoma, Fuhrman, Grade 2

Michigan (St. Mary's Hospital) - Renal cell carcinoma, clear cell type

Mississippi (University of Mississippi Medical Center) - Renal cell carcinoma, conventional (clear cell) type

New York (Albany Medical Center) - Renal cell carcinoma, clear cell type

New York (St. Lukes Roosevelt Hospital) - Renal cell carcinoma, clear cell type (1); Clear cell carcinoma of kidney, grade II (1)

New York (St. Joseph Hospital) - Renal cell carcinoma, clear cell type

Ohio (University of Toledo Medical Center) - Conventional clear cell renal cell carcinoma

Pennsylvania (Conemaugh Memorial Medical Center) - Renal cell carcinoma, clear cell type

Pennsylvania (Drexel University College of Medicine) - Clear cell renal cell carcinoma

Pennsylvania (Fox Chase Cancer Center) - Hepatoblastoma

Tennessee, Knoxville - Clear cell renal cell carcinoma

Texas, Crystal Beach - Renal cell carcinoma, chromophobe and clear cell type

Texas (Scott & White Memorial Hospital) - Clear cell renal cell carcinoma

Utah (University of Utah Health Sciences) - Renal cell carcinoma, conventional type (clear cell), Fuhrman, grade I

Wisconsin (St. Mary's Hospital) - Renal cell carcinoma, clear cell type

Washington, Bothell - Clear cell carcinoma

Canada (Pasqua Hospital) - Renal cell carcinoma, clear cell type

Ireland (Mater Hospital, Dublin) - Clear cell renal cell carcinoma

Japan (Asahi General Hospital) - Clear cell renal cell carcinoma

Japan (Shizuoka Tokushukai Hospital) - Renal clear cell carcinoma

Puerto Rico (University of Puerto Rico) - Clear cell renal cell carcinoma, Fuhrman, Grade 2

Spain (Provisa Medical Center) - Clear cell renal carcinoma

The Netherlands, Amstelveen - Clear cell adenocarcinoma, renal cell carcinoma

United Kingdom (John Radcliffe Hospital) - Clear cell renal cell carcinoma

Case 3 - Diagnosis:

Clear cell renal cell carcinoma, kidney

T-71000, M-83123

Case 3 - References:

Goyal R, Joshi K, Singh SK and Radotra BD. Melanotic Clear Cell Epithelioid Angiomyolipoma. A Rare Entity and a Mimic of Clear Cell Renal Carcinoma. *Histopathol* 2007; 50(3):393-394.

Tickoo SK and Gopalan A. Pathologic Features of Renal Cortical Tumors. *Urol Clin North Am* 2008; 35(4):551-561.

Soller MJ, Kullendorff CM, Bekassy AN, et al. Cytogenetic Findings in Pediatric Renal Cell Carcinoma. *Cancer Genet Cytogenet* 2007; 173(1):75-80.

Wang HY and Mills SE. KIT and RCC Are Useful in Distinguishing Chromophobe Renal Cell Carcinoma from the Granular Variant of Clear Cell Renal Cell Carcinoma. *Am J Surg Pathol* 2005; 29(5):640-646.

Lin F, Yang W Betten M, et al. Expression of S-100 Protein in Renal Cell Neoplasms. *Hum Pathol* 2006; 37(4):462-470.

Leroy X, Farine MO, Buob D, et al. Diagnostic Value of Cytokeratin 7, CD10 and Mesothelin In Distinguishing Ovarian Clear Cell Carcinoma From Metastasis of Renal Clear Cell Carcinoma. *Histopathol* 2007; 51(6):874-876.

Case No. 4, Accession No. 30944

May 2009

Canoga Park - Papillary renal cell carcinoma
Glendale - Renal cell carcinoma, papillary type I
Loma Linda - Papillary variant renal cell carcinoma
San Diego (Naval Medical Center) - Papillary renal cell carcinoma
San Diego (Pacific Pathology, Inc.) - Papillary renal cell carcinoma (2)
Woodland Hills - Papillary renal cell carcinoma, type II
Florida (Naples Pathology Associates) - Renal cell carcinoma, papillary type
Georgia, Decatur - Papillary renal cell carcinoma
Illinois (Heartland Regional Medical Center) - Renal cell carcinoma, papillary type
Kansas (Coffeyville Regional Medical Center) - Papillary renal cell carcinoma
Kansas (Peterson Laboratory Services) - Papillary renal cell carcinoma
Louisiana (LSU-HSU) - Papillary renal cell carcinoma, type I
Maryland (University of Maryland) - Renal cell carcinoma, papillary type
Michigan (Pinkus Dermatopathology) - Papillary renal cell carcinoma
Michigan (St. Mary's Hospital) - Renal cell carcinoma, papillary type
Mississippi (University of Mississippi Medical Center) - Renal cell carcinoma, papillary type 2
New York (Albany Medical Center) - Papillary renal cell carcinoma
New York (St. Lukes Roosevelt Hospital) - Papillary carcinoma, type 2 (1); Papillary carcinoma of kidney (1)
New York (St. Joseph Hospital) - Papillary renal cell carcinoma
Ohio (University of Toledo Medical Center) - Papillary renal cell carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Papillary renal cell carcinoma
Pennsylvania (Drexel University College of Medicine) - Papillary renal cell carcinoma
Pennsylvania (Fox Chase Cancer Center) - Hepatocellular carcinoma
Tennessee, Knoxville - Papillary renal cell carcinoma
Texas, Crystal Beach - Renal cell carcinoma, papillary type
Texas (Scott & White Memorial Hospital) - Papillary renal cell carcinoma
Utah (University of Utah Health Sciences) - Papillary renal cell carcinoma, type I
Wisconsin (St. Mary's Hospital) - Papillary renal cell carcinoma
Washington, Bothell - Papillary renal cell carcinoma
Canada (Pasqua Hospital) - Renal cell carcinoma, papillary type
Ireland (Mater Hospital, Dublin) - Papillary renal cell carcinoma, type 2
Japan (Asahi General Hospital) - Papillary renal cell carcinoma
Japan (Shizuoka Tokushukai Hospital) - Renal papillary carcinoma
Puerto Rico (University of Puerto Rico) - Papillary renal cell carcinoma, type I
Spain (Provisa Medical Center) - Papillary renal cell carcinoma
The Netherlands, Amstelveen - Papillary adenocarcinoma
United Kingdom (John Radcliffe Hospital) - Papillary renal cell carcinoma

Case 4 - Diagnosis:

Papillary renal cell carcinoma, kidney
T-71000, M-80503

Case 4 - References:

Armah HB, Parwani AV, Surti U, et al. Xp11.2 Translocation Renal Cell Carcinoma Occurring During Pregnancy with a Novel Translocation Involving Chromosome 19. A Case Report with Review of the Literature. *Diagn Pathol* 2009; 4:15.

Sanz-Ortega J, Olivier C, et al. Hereditary Renal Cancer. *Actas Urol Esp* 2009; 33(2):127-133.

Okon K, Sinczak-Kuta A and Stachura J. Renal Papillary Carcinoma Classification Into Subtypes May Be Reproduced By Nuclear Morphometry. *Anal Quant Cytol Histol* 2009; 31(2):109-117.

Park BH, Ro JY and Park WS. Oncocytic Papillary Renal Cell Carcinoma with Inverted Nuclear Pattern. Distinct Subtype with an Indolent Clinical Course. *Pathol Int* 2009; 59(3):137-146.
Klatte T, Pantuck AJ, Said JW, et al. Cytogenetic and Molecular Tumor Profiling for Type 1 and Type 2 Papillary Renal Cell Carcinoma. *Clin Cancer Res* 2009; 15(4):1162-1169.

Case No. 5, Accession No. 30968

May 2009

Canoga Park - Mucinous and tubular renal cell carcinoma
Glendale - Renal cell carcinoma, mucinous tubular spindle type
Loma Linda - Variant of renal cell carcinoma
San Diego (Naval Medical Center) - Mucinous tubular spindle cell carcinoma
San Diego (Pacific Pathology, Inc.) - Metanephric adenoma (1); Renal cell carcinoma, oncocytic type (1)
Woodland Hills - Collecting duct carcinoma
Florida (Naples Pathology Associates) - Mucinous tubular and spindle cell carcinoma
Georgia, Decatur - Mucinous tubular and spindle cell carcinoma
Illinois (Heartland Regional Medical Center) - Renal cell mucinous tubular and spindle cell tumor
Kansas (Coffeyville Regional Medical Center) - Renal cell carcinoma, collecting duct type
Kansas (Peterson Laboratory Services) - Mucinous tubular and spindle cell carcinoma
Louisiana (LSU-HSU) - Mucinous tubular and spindle cell carcinoma
Maryland (University of Maryland) - Mucinous tubular and spindle renal cell carcinoma
Michigan (Pinkus Dermatopathology) - Clear cell and granular cell renal cell carcinoma, Fuhrman,
Michigan (St. Mary's Hospital) - Renal cell carcinoma, papillary type
Mississippi (University of Mississippi Medical Center) - Mucinous and tubular spindle cell carcinoma
New York (Albany Medical Center) - Unclassified renal cell carcinoma
New York (St. Lukes Roosevelt Hospital) - Mucinous tubular and spindle cell carcinoma (2)
New York (St. Joseph Hospital) - Wilm's tumor
Ohio (University of Toledo Medical Center) - Collecting duct renal cell carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Renal cell carcinoma, collecting duct variant
Pennsylvania (Drexel University College of Medicine) - Mucinous tubular and spindle cell carcinoma
Pennsylvania (Fox Chase Cancer Center) - Solitary fibrous tumor
Tennessee, Knoxville - Mucinous tubular and spindle cell carcinoma
Texas, Crystal Beach - Renal cell carcinoma consistent with collecting duct type features
Texas (Scott & White Memorial Hospital) - Papillary renal cell carcinoma
Utah (University of Utah Health Sciences) - Renal mucinous and spindle cell carcinoma
Wisconsin (St. Mary's Hospital) - Oncocytoma
Washington, Bothell - Papillary renal cell carcinoma
Canada (Pasqua Hospital) - Mucinous tubular and spindle cell renal carcinoma
Ireland (Mater Hospital, Dublin) - Mucinous tubular and spindle cell carcinoma
Japan (Asahi General Hospital) - Mucinous tubular and spindle cell carcinoma
Japan (Shizuoka Tokushukai Hospital) - Renal cell carcinoma, collecting duct type
Puerto Rico (University of Puerto Rico) - Mucinous tubular and spindle cell carcinoma/papillary renal cell carcinoma, type 2
Spain (Provisa Medical Center) - Mucinous tubular and spindle cell carcinoma
The Netherlands, Amstelveen - Adenocarcinoma
United Kingdom (John Radcliffe Hospital) - Mucinous tubular and spindle cell carcinoma, kidney

Case 5 – Diagnosis:

Mucinous tubular and spindle cell carcinoma, kidney
T-71000, M-80323

Consultation: Dr. Hendricksen, Stanford University: “Mucinous tubular and spindle cell carcinoma.”

Case 5 - References:

- Lopez-Beltran A, Carrasco JC, Cheng L, et al. 2009 Update on the Classification of Renal Epithelial Tumors in Adults. *Int J Urol* 2009; 16(5):432-443.
- Bulimbasic S, Ljubanovic D, Sima R, et al. Aggressive High-Grade Mucinous Tubular and Spindle Cell Carcinoma. *Hum Pathol* 2009; 40(6):906-907.
- Dhillon J, Amin MB, Selbs E, et al. Mucinous Tubular and Spindle Cell carcinoma of the Kidney with Sarcomatoid Change. *Am J Surg Pathol* 2009; 33(1):44-49.
- Kuroda N, Hes O, Michal M, et al. Mucinous Tubular and Spindle Cell Carcinoma with Fuhrman Nuclear Grade 3. A Histological, Immunohistochemical, Ultrastructural and FISH Study. *Histol Histopathol* 2008; 23(12):1517-1523.
- Shen SS, Ro JY, Tamboli P, et al. Mucinous Tubular and Spindle Cell Carcinoma of Kidney is Probably a Variant of Papillary Renal Cell Carcinoma with Spindle Cell Features. *Ann Diagn Pathol* 2007; 11(1):13-21.

Case No. 6, Accession No. 30811

May 2009

Canoga Park - Wilms' tumor
Glendale - Wilms tumor
Loma Linda - Small cell/renal cell carcinoma
San Diego (Naval Medical Center) - Blastemal Wilms'/neuroblastoma
San Diego (Pacific Pathology, Inc.) - Wilms' tumor (2)
Woodland Hills - Wilms tumor
Florida (Naples Pathology Associates) - Nephroblastoma
Georgia, Decatur - Wilms tumor, blastema predominant
Illinois (Heartland Regional Medical Center) - Nephroblastoma
Kansas (Coffeyville Regional Medical Center) - Nephroblastoma (Wilms' tumor)
Kansas (Peterson Laboratory Services) - Wilms' tumor
Louisiana (LSU-HSU) - Nephroblastoma (Wilms tumor)
Maryland (University of Maryland) - Monophasic nephroblastoma (blastema predom)
Michigan (Pinkus Dermatopathology) - Neuroblastoma
Michigan (St. Mary's Hospital) - Wilms' tumor
Mississippi (University of Mississippi Medical Center) - Wilms tumor
New York (Albany Medical Center) - Wilms' tumor, blastemal predominant
New York (St. Lukes Roosevelt Hospital) - Wilms' tumor (1); Nephroblastoma (1)
New York (St. Joseph Hospital) - Wilms' tumor
Ohio (University of Toledo Medical Center) - Wilms' tumor (nephroblastoma)
Pennsylvania (Conemaugh Memorial Medical Center) - Nephroblastoma
Pennsylvania (Drexel University College of Medicine) - Wilms' tumor
Pennsylvania (Fox Chase Cancer Center) - Pancreatic ductal adenocarcinoma
Tennessee, Knoxville - Wilms tumor
Texas, Crystal Beach - Nephroblastoma
Texas (Scott & White Memorial Hospital) - Nephroblastoma
Utah (University of Utah Health Sciences) - Nephroblastoma
Wisconsin (St. Mary's Hospital) - Small blue cell tumor, probably PNET
Washington, Bothell - Nephroblastoma
Canada (Pasqua Hospital) - Nephroblastoma, rule out neuroblastoma
Ireland (Mater Hospital, Dublin) - Wilms' tumor
Japan (Asahi General Hospital) - Nephroblastoma
Japan (Shizuoka Tokushukai Hospital) - Nephroblastoma
Puerto Rico (University of Puerto Rico) - Wilms tumor, favorable histiology
Spain (Provisa Medical Center) - Nephroblastoma
The Netherlands, Amstelveen - Wilms' tumor
United Kingdom (John Radcliffe Hospital) - Nephroblastoma

Case 6 - Diagnosis:

Wilms tumor, blastemal-rich, kidney

T-71000, M-89603

Director's note: The correct spelling is Wilms tumor without the apostrophe (drc)

Case 6 - References:

- Kadota K, Haba R, Kushida Y, et al. Adult Extrarenal Wilms Tumor Mimicking Mixed Epithelial and Stromal Tumor in the Retroperitoneum. A Case Report with Immunohistochemical Study and Review of the Literature. *Pathol Oncol Res* 2009; 24.
- Fukuzawa R, Anaka MR, Heathcott RW, et al. Wilms Tumour Histology is Determined by Distinct Types of Precursor Lesions and Not Epigenetic Changes. *J Pathol* 2008; 215(4):377-387.
- Vasei M, Moch H, Mousavi A, et al. Immunohistochemical Profiling of Wilms Tumor. A Tissue Microarray Study. *Appl Immunohistochem Mol Morphol* 2008; 16(2):128-134.
- Salem M, Kinoshita Y, Tajiri T, et al. Association Between the HER2 Expression and Histological Differentiation in Wilms Tumor. *Pediatr Surg Int* 2006; 22(11):891-896.
- Schinstine M, Abati A, Tsokos M, et al. Cytological Identification of Metastatic Epithelial Nephroblastoma in Pleural Fluid. Report of a Case and Review of Literature. *Diagn Cytopathol* 2006; 34(9):621-625.

Case No. 7, Accession No. 30963

May 2009

- Canoga Park - High grade transitional cell carcinoma
- Glendale - Squamous cell carcinoma
- Loma Linda - Infiltrating transitional cell carcinoma of bladder
- San Diego (Naval Medical Center) - Urothelial carcinoma
- San Diego (Pacific Pathology, Inc.) - Urothelial carcinoma vs. direct extension from GYN SCCA, with extensive lymph-vascular involvement (2)
- Woodland Hills - Urothelial carcinoma
- Florida (Naples Pathology Associates) - Transitional cell carcinoma
- Georgia, Decatur - Urothelial carcinoma, nested variant
- Illinois (Heartland Regional Medical Center) - Invasive urothelial carcinoma
- Kansas (Coffeyville Regional Medical Center) - Infiltrating transitional cell carcinoma
- Kansas (Peterson Laboratory Services) - Invasive urothelial carcinoma, high grade
- Louisiana (LSU-HSU) - Invasive urothelial carcinoma
- Maryland (University of Maryland) - Papillary urothelial carcinoma
- Michigan (Pinkus Dermatopathology) - Invasive urothelial carcinoma, low grade
- Michigan (St. Mary's Hospital) - Urothelial carcinoma
- Mississippi (University of Mississippi Medical Center) - Urothelial carcinoma, low grade
- New York (Albany Medical Center) - Urothelial carcinoma
- New York (St. Lukes Roosevelt Hospital) - Invasive urothelial carcinoma (2)
- New York (St. Joseph Hospital) - High grade urothelial carcinoma
- Ohio (University of Toledo Medical Center) - Transitional cell carcinoma
- Pennsylvania (Conemaugh Memorial Medical Center) - Invasive urothelial carcinoma
- Pennsylvania (Drexel University College of Medicine) - Transitional cell carcinoma
- Pennsylvania (Fox Chase Cancer Center) - Neuroendocrine carcinoma, low grade
- Tennessee, Knoxville - Urothelial carcinoma, high grade
- Texas, Crystal Beach - Transitional cell carcinoma, metastatic
- Texas (Scott & White Memorial Hospital) - Nested urothelial carcinoma
- Utah (University of Utah Health Sciences) - Urothelial carcinoma, invasive, nested variant
- Wisconsin (St. Mary's Hospital) - Invasive carcinoma
- Washington, Bothell - Invasive squamous cell carcinoma
- Canada (Pasqua Hospital) - Invasive urothelial carcinoma
- Ireland (Mater Hospital, Dublin) - High grade invasive transitional cell carcinoma
- Japan (Asahi General Hospital) - High grade urothelial carcinoma
- Japan (Shizuoka Tokushukai Hospital) - Invasive transitional cell carcinoma
- Puerto Rico (University of Puerto Rico) - Invasive urothelial carcinoma, high grade, with focal glandular differentiation
- Spain (Provisa Medical Center) - Urothelial carcinoma
- The Netherlands, Amstelveen - Urothelial cell carcinoma, invasive
- United Kingdom (John Radcliffe Hospital) - Transitional cell carcinoma

Case 7 - Diagnosis:

Urothelial carcinoma, bladder

T-74000, M-81203

Directors note: Newer classification schemes prefer the designation of “urothelial carcinoma” over “transitional cell carcinoma.”

Case 7 - References:

Simonetti S, Russo R, Ciancia G, et al. Role of Polysomy 17 in Transitional Cell Carcinoma of the Bladder. Immunohistochemical Study of HER2/neu Expression and FISH Analysis of c-erbB-2 Gene and Chromosome 17. *Int J Surg Pathol* 2009; 17(3):198-205.

Serretta V, Altieri V, Morgia G, et al. Cigarette Smoking and Drinking Water Source. Correlation with Clinical Features and Pathology of Superficial Bladder Carcinoma. *Urol Int* 2009; 82(3):318-323.

Cho KS, Seo JW, Park SJ, et al. The Risk Factor for Urethral Recurrence After Radical Cystectomy in Patients with Transitional Cell Carcinoma of the Bladder. *Urol Int* 2009; 82(3):306-311.

Al Ghonaim M, Habib-ur-Rahman, Al Suwaida A, et al. Post Kidney Transplant Transitional Cell Carcinoma of Bladder. *Saudi J Kidney Dis Transpl* 2009; 20(3):

Case No. 8, Accession No. 30960

May 2009

Canoga Park - Squamous cell carcinoma

Glendale - Squamous cell carcinoma

Loma Linda - Variant of renal cell carcinoma of transitional cell carcinoma

San Diego (Naval Medical Center) - Urothelial carcinoma

San Diego (Pacific Pathology, Inc.) - Urothelial (transitional cell) carcinoma of renal pelvis with collecting ducts involvement (2)

Woodland Hills - Urothelial carcinoma (transitional cell carcinoma, high grade)

Florida (Naples Pathology Associates) - Transitional cell carcinoma, high grade

Georgia, Decatur - Urothelial carcinoma of the renal pelvis

Illinois (Heartland Regional Medical Center) - Invasive squamous cell carcinoma

Kansas (Coffeyville Regional Medical Center) - Infiltrating urothelial carcinoma with squamous differentiation

Kansas (Peterson Laboratory Services) - Squamous cell carcinoma

Louisiana (LSU-HSU) - Invasive urothelial carcinoma

Maryland (University of Maryland) - Papillary urothelial carcinoma

Michigan (Pinkus Dermatopathology) - Invasive urothelial carcinoma, high grade

Michigan (St. Mary's Hospital) - Urothelial carcinoma

Mississippi (University of Mississippi Medical Center) - Urothelial carcinoma, high grade with squamous differentiation

New York (Albany Medical Center) - Squamous cell carcinoma

New York (St. Lukes Roosevelt Hospital) - Squamous cell carcinoma (1) Invasive carcinoma with squamoid features (1)

New York (St. Joseph Hospital) - High grade urothelial carcinoma

Ohio (University of Toledo Medical Center) - Squamous cell carcinoma

Pennsylvania (Conemaugh Memorial Medical Center) - Invasive urothelial carcinoma

Pennsylvania (Drexel University College of Medicine) - Squamous cell carcinoma

Pennsylvania (Fox Chase Cancer Center) - Neuroendocrine carcinoma, low grade

Tennessee, Knoxville - Squamous cell carcinoma

Texas, Crystal Beach - Transitional cell carcinoma, high grade

Texas (Scott & White Memorial Hospital) - Invasive high grade urothelial carcinoma

Utah (University of Utah Health Sciences) - Urothelial carcinoma, invasive with squamous differentiation

Wisconsin (St. Mary's Hospital) - High grade urothelial carcinoma

Washington, Bothell - Squamous cell carcinoma

Canada (Pasqua Hospital) - Squamous cell carcinoma

Ireland (Mater Hospital, Dublin) - High grade invasive urothelial carcinoma

Japan (Asahi General Hospital) - Urothelial carcinoma with squamous differentiation

Japan (Shizuoka Tokushukai Hospital) - Invasive urothelial carcinoma

Puerto Rico (University of Puerto Rico) - Invasive urothelial carcinoma, high grade, with squamous differentiation
Spain (Provisa Medical Center) - Urothelial carcinoma
The Netherlands, Amstelveen - Urothelial cell carcinoma and squamous differentiation
United Kingdom (John Radcliffe Hospital) - Squamous cell carcinoma (2); Transitional cell carcinoma (2)

Case 8 - Diagnosis:

Invasive urothelial carcinoma with squamous differentiation, kidney
T-71000, M-81203

Case 8 - References:

Lopez-Beltran A, Requena MJ, et al. Squamous Differentiation in Primary Urothelial Carcinoma of the Urinary Tract As Seen By MAC387 Immunohistochemistry. *J Clin Pathol* 2007; 60(3):332-335.
Lopez-Beltran A and Cheng L. Histologic Variants of Urothelial Carcinoma. Differential Diagnosis and Clinical Implications. *Hum Pathol* 2006; 37(11):1371-1388.
Guo CC, Fine SW and Epstein JI. Noninvasive Squamous Lesions in the Urinary Bladder. A Clinicopathologic Analysis of 29 Cases. *Am J Surg Pathol* 2006; 30(7):883-891.
Lagwinski N and Thomas A. Squamous Cell Carcinoma of the Bladder. A Clinicopathologic Analysis of 45 Cases. *Am J Surg Pathol* 2007; 31(12):1777-1787.
Ahmad I, Barnetson RJ, and Krishna NS. Keratinizing Squamous Metaplasia of the Bladder. A Review. *Urol Int* 2008; 81(3):247-251.

Case No. 9, Accession No. 30614

May 2009

Canoga Park - Necrotizing granulomatous inflammation
Glendale - Necrotizing granuloma
Loma Linda - Granuloma consistent with tuberculosis
San Diego (Naval Medical Center) - Necrotic granuloma, favor tuberculosis
San Diego (Pacific Pathology, Inc.) - Granulomatous inflammation; DDx: Tuberculosis, Crohn's, sarcoidosis, granulomatous lymphangitis (1); Urothelial carcinoma (1)
Woodland Hills - Vaginitis nodosa (caseating granulomatous epididymitis)
Florida (Naples Pathology Associates) - Granulomatous orchitis
Georgia, Decatur - Necrotizing granulomatous inflammation
Illinois (Heartland Regional Medical Center) - Necrotizing granuloma
Kansas (Coffeyville Regional Medical Center) - Acute necrotizing granuloma (lymphogranuloma venereum)
Kansas (Peterson Laboratory Services) - Granulomatous lymphangitis
Louisiana (LSU-HSU) - Necrotizing granulomatous inflammation, no tumor identified
Maryland (University of Maryland) - Tuberculous epididymitis
Michigan (Pinkus Dermatopathology) - Granulomatous epididymitis
Michigan (St. Mary's Hospital) - Reactive process
Mississippi (University of Mississippi Medical Center) - Necrotizing granulomatous inflammation
New York (Albany Medical Center) - Granulomatous orchitis
New York (St. Lukes Roosevelt Hospital) - Granulomatous necrotizing inflammation (2)
New York (St. Joseph Hospital) - Idiopathic granulomatous epididymitis
Ohio (University of Toledo Medical Center) - Sclerosing lipogranuloma
Pennsylvania (Conemaugh Memorial Medical Center) - Granulomatous orchitis
Pennsylvania (Drexel University College of Medicine) - Necrotizing granuloma
Pennsylvania (Fox Chase Cancer Center) - Carcinoma ex-pleomorphic adenoma
Tennessee, Knoxville - Caseating granulomatous inflammation
Texas, Crystal Beach - Granulomatous inflammation consistent with transitional epithelial activity
Texas (Scott & White Memorial Hospital) - Granulomatous epididymitis
Utah (University of Utah Health Sciences) - Necrotizing spermatocytic granuloma (vasitis nodosa) need cultures
Wisconsin (St. Mary's Hospital) - Granulomatous inflammation
Washington, Bothell - Chronic granulomatous inflammation
Canada (Pasqua Hospital) - Granulomatous reaction probably infectious
Ireland (Mater Hospital, Dublin) - Granulomatous epididymitis favor sarcoidosis

Japan (Asahi General Hospital) - Granulomatous epididymitis
Japan (Shizuoka Tokushukai Hospital) - Necrotizing granuloma (sperm granuloma)
Spain (Provisa Medical Center) - Granulomatous inflammation
The Netherlands, Amstelveen - Necrotizing granulomatous inflammation
United Kingdom (John Radcliffe Hospital) - Necrotizing granulomatous inflammation scrotum

Case 9 - Diagnosis:

Sperm granuloma with necrotizing granulomatous inflammation
T-78000, M-44180

Case 9 - References:

Deane LA, Suding PN, et al. Sperm Granuloma of the Inguinal Vas Deferens Mimicking Recurrent Incarcerated Inguinal Hernia. *Urol* 2007; 69(6):1209.
Agnarsdottir M, Carlen B and Willen R. Malacoplakia and Spermatic Granuloma Complicating Vasectomy. *Ups J Med Sci* 2006; 111(2):227-230.
Kumar V, Gupta N, Srinivasan R, et al. Spermatic Granuloma Presenting as an Epididymal Nodule. Fine Needle Aspiration Cytological Findings and Differential Diagnosis. *Indian J Pathol Microbiol* 2004; 47(4):509-510.
Boorjian S, Lipkin M and Goldstein M. The Impact of Obstructive Interval and Sperm Granuloma on Outcome of Vasectomy Reversal. *J Urol* 2004; 171(1):304-306.
Tewari R, Mishra MN and Salopal TK. The Role of Fine Needle Aspiration Cytology in Evaluation of Epididymal Nodular Lesions. *Acta Cytol* 2007; 51(2):168-170.

Case No. 10, Accession No. 30620

May 2009

Canoga Park - Angiomatous spindle cell carcinoma
Glendale - Angiosarcoma
Loma Linda - Angiosarcoma of kidney
San Diego (Naval Medical Center) - Sarcomatous renal cell carcinoma angiosarcoma
San Diego (Pacific Pathology, Inc.) - Sarcoma, probably leiomyosarcoma, doubt SFT (2)
Woodland Hills - Angiosarcoma
Florida (Naples Pathology Associates) - Sarcomatoid transitional cell carcinoma
Georgia, Decatur - Angiosarcoma
Illinois (Heartland Regional Medical Center) - Angiosarcoma
Kansas (Coffeyville Regional Medical Center) - Sarcomatoid renal cell carcinoma
Kansas (Peterson Laboratory Services) - Spindle cell neoplasm, favor Kaposi
Louisiana (LSU-HSU) - Angiosarcoma
Maryland (University of Maryland) - Angiosarcoma
Michigan (Pinkus Dermatopathology) - Sarcomatoid renal cell carcinoma vs. sarcoma
Michigan (St. Mary's Hospital) - Kaposi's sarcoma
Mississippi (University of Mississippi Medical Center) - Angiosarcoma
New York (Albany Medical Center) - Sarcomatoid renal cell carcinoma
New York (St. Lukes Roosevelt Hospital) - Angiosarcoma (2)
New York (St. Joseph Hospital) - Renal cell carcinoma, clear cell sarcomatoid type
Ohio (University of Toledo Medical Center) - Angiosarcoma
Pennsylvania (Conemaugh Memorial Medical Center) - Angiosarcoma
Pennsylvania (Drexel University College of Medicine) - Angiosarcoma
Pennsylvania (Fox Chase Cancer Center) - Squamous cell carcinoma with spindle cell features
Tennessee, Knoxville - Angiosarcoma
Texas, Crystal Beach - Renal cell carcinoma consistent with sarcomatoid features
Texas (Scott & White Memorial Hospital) - Sarcomatoid renal cell carcinoma
Utah (University of Utah Health Sciences) - Angiosarcoma
Wisconsin (St. Mary's Hospital) - Kaposi's sarcoma vs. leiomyosarcoma
Washington, Bothell - Angiosarcoma vs. sarcomatoid renal cell carcinoma
Canada (Pasqua Hospital) - Sarcomatoid tumor probable carcinoma
Ireland (Mater Hospital, Dublin) - Angiosarcoma
Japan (Asahi General Hospital) - Leiomyosarcoma

Japan (Shizuoka Tokushukai Hospital) - Angiosarcoma
Spain (Provisa Medical Center) - Sarcoma favor angiosarcoma
The Netherlands, Amstelveen - Kaposi sarcoma
United Kingdom (John Radcliffe Hospital) - Angiosarcoma, kidney

Case 10 - Diagnosis:

Angiosarcoma, kidney
T-71000, M-91203

Case 10 - References:

Fukunaga M. Angiosarcoma of the Kidney with Minute Clear Cell Carcinomas. A Case Report. *Pathol Res Pract* 2009; 205(5):347-351.
Stamatiou KN, Papadimitriou VD, Takos DM, et al. Primary Angiosarcoma Arising From a Multicystic Kidney. *Saudi Med J* 2008; 29(7):1054-1055.
Carnero Lopez B, Fernandez Perez I, Carrasco Alvarez JA, et al. Renal Primary Angiosarcoma. *Clin Transl Oncol* 2007; 9(12):806-810.
Leggio L. Primary Angiosarcoma of the Kidney. Size is the Main Prognostic Factor. *Int J Urol* 2007; 14(8):777.
Lee TY, Lawen J and Gupta R. Renal Angiosarcoma. A Case Report and Literature Review. *Can J Urol* 2007; 14(1):3471-3476.