



CALIFORNIA
TUMOR TISSUE REGISTRY

GENITOURINARY PATHOLOGY

Minutes – Subscription A

February, 2008



SUGGESTED READING (General Topics from Recent Literature):

- Risk of Pancreatic Adenocarcinoma in Patients with Hereditary Pancreatitis. A National Exhaustive Series. Rebours V, Boutron-Ruault MC, et al. *Am J Gastroenterol* 2008; 103:111-119.
- A Comparison of Aspiration Cytology and Core Needle Biopsy According to Tumor Size of Suspicious Breast Lesions. Barra A de A, Gobbi H, et al. *Diagn Cytopathol* 2008; 36:26-31.
- Small Cell Carcinoma of the Prostate. A Morphologic and Immunohistochemical Study of 95 Cases. Wang W and Epstein JI. *Am J Surg Pathol* 2008; 32:65-71.
- Utility of WT-1, p63, MOC31, Mesothelin, and Cytokeratin (K903 and CK5/6). Immunostains in Differentiating Adenocarcinoma, Squamous Cell Carcinoma, and Malignant Mesothelioma in Effusions. Pu RT, Pang Y, and Michael CW. *Diagn Cytopathol* 2008; 36:20-25.
- Growth Factor Receptors Expression in Anaplastic Thyroid Carcinoma. Potential Markers for Therapeutic Stratification. Elliott DD, Sherman SI, et al. *Hum Pathol* 2008; 39:15-20.

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FILE DIAGNOSES

CTTR Subscription A

February 2008

Case 1:

Prostatic stromal tumor of uncertain malignant potential
T-77100, M-72450

Case 2:

Metanephric adenoma, kidney
T-71000, M-91100

Case 3:

Wilms tumor, kidney
T-71000, M-89603

Case 4:

Clear cell sarcoma, kidney
T-71000, M-90443

Case 5:

Oncocytoma, kidney
T-71000, M-82900

Case 6:

Poorly differentiated renal cell carcinoma with granular cell features, kidney
T-71000, M-83123

Case 7:

Papillary renal cell carcinoma
T-71000, M-83123

Case 8:

Small cell carcinoma, bladder and prostate
T-77100, M-80413

Case 9:

Urothelial carcinoma in-situ, kidney and ureter
T-73000, M-81203

Case 10:

High-grade urothelial (transitional) carcinoma, kidney
T-71000, M-81203

Alameda (Alameda County Medical Center) - Stromal tumor of uncertain malignant potential
Arcadia (ABC Laboratories) - Benign stromal tumor with smooth muscle differentiation
Fontana (Kaiser Permanente) - Pecoma
Hayward/Fremont - Leiomyoma, prostate
La Jolla (Scripps Clinic) - Prostatic stromal sarcoma
Long Beach (Long Beach Veterans Hospital) - Solitary fibrous tumor (7)
Mountain View (El Camino Hospital) - Stromal nodule
Oakland - Spindle cell nodule
Orange (Orange County Pathology) - Benign fibrohistiocytic lesion
Oxnard (St. John's Regional Medical Center) - Solitary fibrous tumor (2); Proliferative stromal lesion (1)
San Diego (Naval Medical Center) - Post-operative spindle cell nodule
San Diego (RCRMC) - Spindle cell lesion r/o stromal sarcoma, fibrous histiocytoma, solitary fibrous tumor
San Francisco (UCSF Fellows) - Pseudosarcoma
San Francisco (San Francisco General Hospital) - Sclerosing adenosis
Santa Barbara - Leiomyosarcoma
Santa Barbara (Cottage Hospital) - Prostatic stromal tumor of uncertain malignant potential
Santa Rosa (Santa Rosa Memorial Hospital) - Leiomyoma (3)
Sonoma - Inflammatory pseudotumor (inflammatory myofibroblastic tumor)
Alabama (Baptist Medical Center) - Hemangiopericytoma
Alabama, Mt. Olive - Prostatic stromal tumor of unknown malignant potential
Colorado (McKee Medical Center) - Langerhan's cell histiocytosis
Florida (Tallahassee Pathology Associates) - Stromal nodule
Georgia, Decatur - Stromal neoplasm of uncertain malignant potential
Illinois, Burr Ridge - Prostatic stromal uncertain malignant potential
Illinois (Heartland Regional Medical Center) - Prostatic stromal neoplasm of uncertain malignant potential
Indiana (MacNeal Hospital) - Spindle cell tumor, meningioma vs. postop spindle cell nodule vs. hemangiopericytoma
Indiana (St. Joseph Hospital) - Post operative spindle cell nodule (1); Inflammatory pseudotumor (1)
Kansas (Cytocheck Laboratory) - Inflammatory pseudotumor (2)
Louisiana (Orleans Parish Coroner's Office) - Inflammatory pseudotumor (2)
Massachusetts (Berkshire Medical Center) - Leiomyoma, cellular type
Massachusetts (Tufts-New England Medical Center) - Inflammatory pseudotumor
Massachusetts (UMASS Memorial Medical Center) - Spindle cell lesion favoring leiomyoma
Michigan (Pathology Services of West Michigan) - STUMP
Minnesota (Fairview Ridges Hospital) - Hyperplastic stromal nodule vs. solitary fibrous tumor
Nebraska (Creighton University Medical Center) - Pecoma
New Mexico (Albuquerque) - Stromal sarcoma
New Mexico (University of New Mexico) - Solitary fibrous tumor
New York (ECMC) - Inflammatory myofibroblastic tumor
New York (Long Island Jewish Medical Center) - Post-operation spindle cell tumor
New York (Stony Brook University Medical Center) - Stromal nodule of hyperplasia
Ohio (McCullough-Hyde Memorial Hospital) - Spindle cell nodule vs. pseudotumor
Pennsylvania (Connaugh Memorial Hospital) - Leiomyoma
Pennsylvania (Drexel Medical Center) - Leiomyoma
Pennsylvania (Lehigh Valley Hospital) - Solitary fibrous tumor
Pennsylvania (Magee Women's Hospital) - Prostatic stromal sarcoma
Pennsylvania (St. Elizabeth Health Center) - Solitary fibrous tumor of prostate
Tennessee (East Tennessee State University) - Leiomyoma
Texas, Crystal Beach - Carcinoma squamous spinily
Texas, Houston - Spindle cell tumor, follicular dendritic cell vs. inflammatory fibroblastic tumor
Texas, Lubbock - Leiomyoma
Texas (Scott & White Memorial Hospital) - Benign stromal tumor, favor Pecoma
Texas (The Methodist Hospital) - Leiomyoma
Washington (Seattle VA Medical Center) - Prostatic stromal tumor, uncertain malignant potential
West Virginia (Greenbrier Valley Medical Center) - Leiomyomatous hyperplasia

Australia (Royal Hobart Hospital) - Solitary fibrous tumor
Brazil, Sao Paulo - Leiomyoma vs. leiomyosarcoma
Canada (Pasqua Hospital) - Stromal sarcoma
Canada (University Hospital Sherbrooke) - Myofibroblastoma
Hong Kong (Hong Kong Baptist Hospital) - Leiomyoma
Ireland (Kerry General Hospital) - ? post-op spindle cell nodule, ? solitary fibrous tumor
Ireland (University College Hospital) - Solitary fibrous tumor-prostate
Japan (Asashi General Hospital) - Inflammatory myofibroblastic tumor
Japan (Kyoto University Hospital) - Spindle cell tumor (solitary fibrous tumor ?)
Saudi Arabia (King Abdulaziz Medical City Group) - Leiomyoma
United Kingdom (John Radcliffe Hospital) - Solitary fibrous tumor
Oman (Sultanat of Oman) - Solitary fibrous tumor

Case 1 - Diagnosis:

Prostatic stromal tumor of uncertain malignant potential
 T-77100, M-72450

Case 1 - References:

Klausner AP, Unger P, Fine EM, et al. Recurrent Prostatic Stromal Proliferation of Uncertain Malignant Potential. A Therapeutic Challenge. *J Urol* 2002; 168:1493-1494.
 Herawi M and Epstein JI. Specialized Stromal Tumors of the Prostate. A Clinicopathologic Study of 50 Cases. *Am J Surg Pathol* 2006; 30(6):694-704.
 Wee HM, Ho SH, Tan PH, et al. Recurrent Prostatic Stromal Tumour of Uncertain Malignant Potential (STUMP) Presenting with Urinary Retention 6 Years After Transurethral Resection of Prostate (TURP). *Ann Acad Med Singapore* 2005; 34(7):441-442.
 Kakuta Y, Kobayashi Y, Tanaka M, et al. A Case of Prostatic Stromal Tumor of Uncertain Malignant Potential. *Hinyokika Kiyo* 2005; 51(12):843-846.
 Bostwick DG, Hossain D, Qian J, et al. Phyllodes Tumor of the Prostate. Long-Term Followup Study of 23 Cases. *J Urol* 2004; 172(3):894-899.

Case No. 2, Accession No. 30678

February 2008

Alameda (Alameda County Medical Center) - Metanephric adenoma
Arcadia (ABC Laboratories) - Metanephric adenoma
Fontana (Kaiser Permanente) - Metanephric adenoma
Hayward/Fremont - Metanephric adenoma
La Jolla (Scripps Clinic) - Metanephric adenoma
Long Beach (Long Beach Veterans Hospital) - Metanephric adenoma (7)
Mountain View (El Camino Hospital) - Metanephric adenoma
Oakland - Metanephric adenoma
Orange (Orange County Pathology) - Metanephric adenoma
Oxnard (St. John's Regional Medical Center) - Metanephric adenoma (3)
San Diego (Naval Medical Center) - Metanephric adenoma
San Diego (RCRMC) - Metanephric adenoma (r/o renal cell carcinoma, capsule)
San Francisco (UCSF Fellows) - Metanephric adenoma
San Francisco (San Francisco General Hospital) - Metanephric adenoma
Santa Barbara - Metanephric adenoma
Santa Barbara (Cottage Hospital) - Metanephric adenoma
Santa Rosa (Santa Rosa Memorial Hospital) - Metanephric adenoma (3)
Sonoma - Metanephric adenofibroma
Alabama (Baptist Medical Center) - Metanephric adenoma
Alabama, Mt. Olive - Metanephric adenoma
Colorado (McKee Medical Center) - Metanephric adenoma
Florida (Tallahassee Pathology Associates) - Metanephric adenoma
Georgia, Decatur - Metanephric adenoma

Illinois, Burr Ridge - Metanephric adenoma
Illinois (Heartland Regional Medical Center) - Metanephric adenoma
Indiana (MacNeal Hospital) - Metanephric adenoma
Indiana (St. Joseph Hospital) - Renal cortical adenoma (1); Metanephric adenoma (1)
Kansas (Cytocheck Laboratory) - Metanephric adenoma (2)
Louisiana (Orleans Parish Coroner's Office) - Metanephric adenoma
Massachusetts (Berkshire Medical Center) - Metanephric adenoma
Massachusetts (Tufts-New England Medical Center) - Metanephric adenoma
Massachusetts (UMASS Memorial Medical Center) - Metanephric adenoma
Michigan (Pathology Services of West Michigan) - Metanephric adenoma
Minnesota (Fairview Ridges Hospital) - Metanephric adenoma
Nebraska (Creighton University Medical Center) - Metanephric adenoma
New Mexico (Albuquerque) - Metanephric adenoma
New Mexico (University of New Mexico) - Metanephric adenoma
New York (ECMC) - Metanephric adenoma
New York (Long Island Jewish Medical Center) - Metanephric adenoma
New York (Stony Brook University Medical Center) - Metanephric adenoma
Ohio (McCullough-Hyde Memorial Hospital) - Metanephric adenoma
Pennsylvania (Connaugh Memorial Hospital) - Metanephric adenoma
Pennsylvania (Drexel Medical Center) - Metanephric adenoma
Pennsylvania (Lehigh Valley Hospital) - Metanephric adenoma
Pennsylvania (Magee Women's Hospital) - Metanephric adenoma
Pennsylvania (St. Elizabeth Health Center) - Metanephric adenoma
Tennessee (East Tennessee State University) - Metanephric adenoma
Texas, Crystal Beach - Renal cortical adenoma
Texas, Houston - Metanephric adenoma
Texas, Lubbock - Nephrogenic adenoma
Texas (Scott & White Memorial Hospital) - Metanephric adenoma
Texas (The Methodist Hospital) - Metanephric adenoma
Washington (Seattle VA Medical Center) - Low grade epithelial neoplasm (metanephric adenoma)
West Virginia (Greenbrier Valley Medical Center) - Papillary renal cell carcinoma
Australia (Royal Hobart Hospital) - Metanephric adenoma
Brazil, Sao Paulo - Metanephric adenoma
Canada (Pasqua Hospital) - Metanephric adenoma
Canada (University Hospital Sherbrooke) - Metanephric adenoma
Hong Kong (Hong Kong Baptist Hospital) - Metanephric adenoma
Ireland (Kerry General Hospital) - Metanephric adenoma
Ireland (University College Hospital) - Metanephric adenoma
Japan (Asashi General Hospital) - Metanephric adenoma
Japan (Kyoto University Hospital) - Metanephric adenoma
Saudi Arabia (King Abdulaziz Medical City Group) - Metanephric adenoma
United Kingdom (John Radcliffe Hospital) - Metanephric adenoma
Oman (Sultanat of Oman) - Metanephric adenoma

Case 2 - Diagnosis:

Metanephric adenoma, kidney
 T-71000, M-91100

Case 2 - References:

- Lerut E, Roskams T, Joniau S, et al. Metanephric Adenoma During Pregnancy. Clinical Presentation, Histology, and Cytogenetics. *Hum Pathol* 2006; 37(9):1227-1232.
 Rakheja D, Lian F, Tomlinson GE, et al. Renal Metanephric Adenoma with Previously Unreported Cytogenetic Abnormalities. Case Report and Review of the Literature. *Pediatr Dev Pathol* 2005; 8(2):218-223.
 Iqbal J, Gupta S, Breuer FU, et al. Renal Metanephric Adenoma with Previously Unreported Cytogenetic Abnormalities. Case Report and Review of the Literature. *Pediatr Dev Pathol* 2005; 8(2):218-223.
 Iqbal J, Gupta S, Breuer FU, et al. Metanephric Adenoma Mimicking Papillary Carcinoma Arising in a Mixed Epithelial and Stromal Tumor of the Kidney. *Cancer Genet Cytogenet* 2006; 170(1):83-85.

Paner GP, Turk TM, Clark JI, et al. Passive Seeding in Metanephric Adenoma. A Review of Pseudometastatic Lesion in Perinephric Lymph Nodes. *Arch Pathol Lab Med* 2005; 129(10):1317-1321.

Argani P. Metanephric Neoplasm. The Hyperdifferentiated, Benign End of the Wilms Tumor Spectrum? *Clin Lab Med* 2005; 25(2):379-392.

Case No. 3, Accession No. 30704

February 2008

Alameda (Alameda County Medical Center) - Nephroblastoma

Arcadia (ABC Laboratories) - Clear cell sarcoma

Fontana (Kaiser Permanente) - Wilm's tumor

Hayward/Fremont - Wilm's tumor

La Jolla (Scripps Clinic) - Wilm's tumor

Long Beach (Long Beach Veterans Hospital) - Wilm's tumor (7)

Mountain View (El Camino Hospital) - Wilm's tumor

Oakland - Wilm's tumor

Orange (Orange County Pathology) - Wilm's tumor

Oxnard (St. John's Regional Medical Center) - Nephroblastoma (3)

San Diego (Naval Medical Center) - Nephroblastoma

San Diego (RCRMC) - Nephroblastoma

San Francisco (UCSF Fellows) - Wilm's tumor, blastema-predominant

San Francisco (San Francisco General Hospital) - Wilm's tumor

Santa Barbara - Nephroblastoma

Santa Barbara (Cottage Hospital) - Nephroblastoma

Santa Rosa (Santa Rosa Memorial Hospital) - Wilm's tumor (3)

Sonoma - Nephroblastoma

Alabama (Baptist Medical Center) - Wilm's tumor

Alabama, Mt. Olive - Nephroblastoma (Wilm's tumor)

Colorado (McKee Medical Center) - Nephroblastoma

Florida (Tallahassee Pathology Associates) - Wilm's tumor

Georgia, Decatur - Wilm's tumor, blastema predominant

Illinois, Burr Ridge - Cystic nephroma

Illinois (Heartland Regional Medical Center) - Nephroblastoma

Indiana (MacNeal Hospital) - Wilm's tumor, blastema type

Indiana (St. Joseph Hospital) - Nephroblastoma (1); Wilm's tumor (1)

Kansas (Cytocheck Laboratory) - Wilm's tumor, blastemal (1); Nephroblastoma (1)

Louisiana (Orleans Parish Coroner's Office) - Wilm's tumor

Massachusetts (Berkshire Medical Center) - Nephroblastoma (Wilm's), anaplastic type

Massachusetts (Tufts-New England Medical Center) - Neuroblastoma vs. Wilm's

Massachusetts (UMASS Memorial Medical Center) - Wilm's tumor

Michigan (Pathology Services of West Michigan) - Wilm's diffuse blastemal

Minnesota (Fairview Ridges Hospital) - Nephroblastoma

Nebraska (Creighton University Medical Center) - Wilm's tumor (nephroblastoma)

New Mexico (Albuquerque) - Nephroblastoma

New Mexico (University of New Mexico) - Wilm's tumor

New York (ECMC) - Nephroblastoma

New York (Long Island Jewish Medical Center) - Wilm's tumor

New York (Stony Brook University Medical Center) - Wilm's tumor

Ohio (McCullough-Hyde Memorial Hospital) - Nephroblastoma

Pennsylvania (Connaugh Memorial Hospital) - Wilm's tumor

Pennsylvania (Drexel Medical Center) - Wilm's tumor, favorable prognosis type

Pennsylvania (Lehigh Valley Hospital) - Nephroblastoma

Pennsylvania (Magee Women's Hospital) - Wilm's tumor

Pennsylvania (St. Elizabeth Health Center) - Neuroblastoma

Tennessee (East Tennessee State University) - Wilm's tumor

Texas, Crystal Beach - Nephroblastoma

Texas, Houston - Wilm's tumor
Texas, Lubbock - Wilm's tumor
Texas (Scott & White Memorial Hospital) - Nephroblastoma
Texas (The Methodist Hospital) - Nephroblastoma
Washington (Seattle VA Medical Center) - High grade blastemal/little epithelial neoplasm (Wilm's)
West Virginia (Greenbrier Valley Medical Center) - Nephroblastoma
Australia (Royal Hobart Hospital) - Nephroblastoma
Brazil, Sao Paulo - Wilm's tumor, 99% blastemal components
Canada (Pasqua Hospital) - Nephroblastoma
Canada (University Hospital Sherbrooke) - Wilm's tumor
Hong Kong (Hong Kong Baptist Hospital) - Nephroblastoma
Ireland (Kerry General Hospital) - Wilm's tumor
Ireland (University College Hospital) - Wilm's tumor
Japan (Asahi General Hospital) - Nephroblastoma
Japan (Kyoto University Hospital) - Nephroblastoma, blastemal type
Saudi Arabia (King Abdulaziz Medical City Group) - Wilm's tumor
United Kingdom (John Radcliffe Hospital) - Nephroblastoma
Oman (Sultanat of Oman) - Wilm's tumor

Case 3 - Diagnosis:

Wilms tumor, kidney
 T-71000, M-89603

Case 3 - References:

Hohenstein P and Hastie ND. The Many Facets of the Wilms' Tumour Gene. *Hum Mol Genet* 2006; 15 Spec No. 1: R196-201.
 Hamilton TE, Green DM, Perlman EJ, et al. Bilateral Wilms' Tumor with Anaplasia. Lessons From the National Wilms' Tumor Study. *J Pediatr Surg* 2006; 41(10):1641-1644.
 Suita S, Kinoshita Y, et al. Clinical Characteristics and Outcome of Wilms Tumors with a Favorable Histology in Japan. A Report From the Study Group for Pediatric Solid Malignant tumors in the Kyushu Area, Japan. *J Pediatr Surg* 2006; 41(9):1501-1505.
 Dome JS, Cotton CA, Perlman EJ, et al. Treatment of Anaplastic Histology Wilms' Tumor. Results From the Fifth National Wilms' Tumor Study. *J Clin Oncol* 2006; 24(15):2352-2358.
 Metzger ML and Dome JS. Current Therapy for Wilms' Tumor. *Oncologist* 2005; 10(10):815-826.

Case No. 4, Accession No. 30499

February 2008

Alameda (Alameda County Medical Center) - Clear cell sarcoma
Arcadia (ABC Laboratories) - PNET
Fontana (Kaiser Permanente) - PNET/Ewing
Hayward/Fremont - Wilm's tumor
La Jolla (Scripps Clinic) - Clear cell sarcoma
Long Beach (Long Beach Veterans Hospital) - Malignant small blue cell tumor (7)
Mountain View (El Camino Hospital) - Clear cell sarcoma of kidney
Oakland - Wilm's tumor
Orange (Orange County Pathology) - Clear cell sarcoma
Oxnard (St. John's Regional Medical Center) - Wilm's (2); Clear cell sarcoma (1)
San Diego (Naval Medical Center) - Clear cell sarcoma
San Diego (RCRMC) - Nephroblastoma
San Francisco (UCSF Fellows) - Clear cell sarcoma of kidney
San Francisco (San Francisco General Hospital) - Neuroblastoma
Santa Barbara - Nephroblastoma
Santa Barbara (Cottage Hospital) - Small blue cell tumor, NOS
Santa Rosa (Santa Rosa Memorial Hospital) - Sarcoma, probable clear cell type (1); Clear cell sarcoma of kidney (2)
Sonoma - Nephroblastoma

Alabama (Baptist Medical Center) - Clear cell sarcoma
Alabama, Mt. Olive - Neuroblastoma
Colorado (McKee Medical Center) - Clear cell sarcoma of kidney
Florida (Tallahassee Pathology Associates) - Clear cell sarcoma
Georgia, Decatur - Clear cell sarcoma of kidney
Illinois, Burr Ridge - Wilm's tumor
Illinois (Heartland Regional Medical Center) - Clear cell sarcoma, epithelioid pattern
Indiana (MacNeal Hospital) - Clear cell sarcoma vs. Wilm's tumor, blastema type
Indiana (St. Joseph Hospital) - Exstrskeletal Ewing's sarcoma (1); Wilm's tumor (1)
Kansas (Cytocheck Laboratory) - Rhabdoid tumor (2)
Louisiana (Orleans Parish Coroner's Office) - Wilm's tumor
Massachusetts (Berkshire Medical Center) - Clear cell sarcoma
Massachusetts (Tufts-New England Medical Center) - Neuroblastoma
Massachusetts (UMASS Memorial Medical Center) - Clear cell sarcoma of kidney
Michigan (Pathology Services of West Michigan) - Wilm's tumor
Minnesota (Fairview Ridges Hospital) - Clear cell sarcoma of kidney
Nebraska (Creighton University Medical Center) - Clear cell sarcoma
New Mexico (Albuquerque) - Clear cell sarcoma
New Mexico (University of New Mexico) - Clear cell sarcoma
New York (ECMC) - Clear cell sarcoma
New York (Long Island Jewish Medical Center) - Clear cell sarcoma
New York (Stony Brook University Medical Center) - Clear cell sarcoma
Ohio (McCullough-Hyde Memorial Hospital) - Clear cell sarcoma
Pennsylvania (Connaugh Memorial Hospital) - Clear cell sarcoma
Pennsylvania (Drexel Medical Center) - Clear cell sarcoma of the kidney
Pennsylvania (Lehigh Valley Hospital) - Clear cell sarcoma of kidney
Pennsylvania (Magee Women's Hospital) - Clear cell sarcoma
Pennsylvania (St. Elizabeth Health Center) - Wilm's tumor, blastemal predominant
Tennessee (East Tennessee State University) - Neuroblastoma
Texas, Crystal Beach - Small cell carcinoma (neuroendocrine?)
Texas, Houston - Clear cell sarcoma
Texas, Lubbock - Neuroblastoma
Texas (Scott & White Memorial Hospital) - Clear cell sarcoma
Texas (The Methodist Hospital) - Ewing sarcoma
Washington (Seattle VA Medical Center) - High grade neoplasm, uterus
West Virginia (Greenbrier Valley Medical Center) - Neuroblastoma
Australia (Royal Hobart Hospital) - Clear cell sarcoma of kidney
Brazil, Sao Paulo - Small blue round cell tumor, favor neuroblastoma
Canada (Pasqua Hospital) - Clear cell sarcoma
Canada (University Hospital Sherbrooke) - Neuroblastoma
Hong Kong (Hong Kong Baptist Hospital) - Clear cell sarcoma of kidney
Ireland (Kerry General Hospital) - ? Wilm's tumor
Ireland (University College Hospital) - Neuroblastoma, kidney
Japan (Asashi General Hospital) - Primitive neuroectodermal tumor
Japan (Kyoto University Hospital) - Clear cell sarcoma
Saudi Arabia (King Abdulaziz Medical City Group) - Clear cell sarcoma
United Kingdom (John Radcliffe Hospital) - Nephroblastoma
Oman (Sultanat of Oman) - Clear cell sarcoma

Case 4 - Diagnosis:

Clear cell sarcoma, kidney
 T-71000, M-90443

Case 4 - References:

Ng A, Jenkinson H, Morland B, et al. Clear Cell Sarcoma. A Dilemma on Pathological Staging and Clinical Management. *Pediatr Hematol Oncol* 2005; 22(3):257-261.

Rakheja D, Weinberg AG, Tomlinson GE, et. al. Translocation (10; 17) (q22; p13). A Recurring Translocation I Clear Cell Sarcoma of Kidney. *Cancer Genet Cytogenet* 2004; 154(2):175-179.

Argani P and Ladanyi M. Recent Advances in Pediatric Renal Neoplasia. *Adv Anat Pathol* 2003; 10(5):243-260.

Radhika S, Bakashi A, Rajwanshi A, et al. Cytopathology of Uncommon Malignant Renal Neoplasms in the Pediatric Age Group. *Diagn Cytopathol* 2005; 32(5):281-286.

El Kababri M, Khattab M, El Khorassani M, et al. Clear Cell Sarcoma of the Kidney. A Study of 13 Cases. *Arch Pediatr* 2004; 11(7):794-799.

Case No. 5, Accession No. 30676

February 2008

Alameda (Alameda County Medical Center) - Oncocytoma

Arcadia (ABC Laboratories) - Oncocytoma (oncocytoma adenoma)

Fontana (Kaiser Permanente) - Oncocytoma

Hayward/Fremont - Oncocytoma

La Jolla (Scripps Clinic) - Oncocytoma

Long Beach (Long Beach Veterans Hospital) - Oncocytoma (7)

Mountain View (El Camino Hospital) - Oncocytoma

Oakland - Oncocytoma

Orange (Orange County Pathology) - Oncocytoma

Oxnard (St. John's Regional Medical Center) - Oncocytoma (3)

San Diego (Naval Medical Center) - Oncocytoma

San Diego (RCRMC) - Oncocytoma

San Francisco (UCSF Fellows) - Oncocytoma

San Francisco (San Francisco General Hospital) - Oncocytoma

Santa Barbara - Oncocytoma

Santa Barbara (Cottage Hospital) - Renal oncocytoma

Santa Rosa (Santa Rosa Memorial Hospital) - Oncocytoma (3)

Sonoma - Oncocytoma

Alabama (Baptist Medical Center) - Renal oncocytoma

Alabama, Mt. Olive - Oncocytoma

Colorado (McKee Medical Center) - Renal cell carcinoma, chromophobe type

Florida (Tallahassee Pathology Associates) - Oncocytoma

Georgia, Decatur - Oncocytoma

Illinois, Burr Ridge - Oncocytoma

Illinois (Heartland Regional Medical Center) - Oncocytoma

Indiana (MacNeal Hospital) - Oncocytoma

Indiana (St. Joseph Hospital) - Renal oncocytoma (2)

Kansas (Cytocheck Laboratory) - Oncocytoma (2)

Louisiana (Orleans Parish Coroner's Office) - Oncocytoma

Massachusetts (Berkshire Medical Center) - Oncocytoma

Massachusetts (Tufts-New England Medical Center) - Oncocytoma vs. chromophobe renal cell carcinoma

Massachusetts (UMASS Memorial Medical Center) - Oncocytoma

Michigan (Pathology Services of West Michigan) - Renal cell carcinoma

Minnesota (Fairview Ridges Hospital) - Oncocytoma

Nebraska (Creighton University Medical Center) - Oncocytoma

New Mexico (Albuquerque) - Oncocytoma

New Mexico (University of New Mexico) - Oncocytoma

New York (ECMC) - Oncocytoma

New York (Long Island Jewish Medical Center) - Oncocytoma

New York (Stony Brook University Medical Center) - Oncocytoma

Ohio (McCullough-Hyde Memorial Hospital) - Renal oncocytoma

Pennsylvania (Connaught Memorial Hospital) - Oncocytoma

Pennsylvania (Drexel Medical Center) - Oncocytoma

Pennsylvania (Lehigh Valley Hospital) - Oncocytoma

Pennsylvania (Magee Women's Hospital) - Oncocytoma

Pennsylvania (St. Elizabeth Health Center) - Renal oncocytoma

Tennessee (East Tennessee State University) - Oncocytoma
Texas, Crystal Beach - Oncocytoma
Texas, Houston - Oncocytoma
Texas, Lubbock - Oncocytoma
Texas (Scott & White Memorial Hospital) - Oncocytoma
Texas (The Methodist Hospital) - Oncocytoma
Washington (Seattle VA Medical Center) - Low grade epithelial neoplasm, oncocytoma
West Virginia (Greenbrier Valley Medical Center) - Oncocytoma
Australia (Royal Hobart Hospital) - Oncocytoma
Brazil, Sao Paulo - Oncocytoma
Canada (Pasqua Hospital) - Oncocytoma
Canada (University Hospital Sherbrooke) - Oncocytoma
Hong Kong (Hong Kong Baptist Hospital) - Renal oncocytoma
Ireland (Kerry General Hospital) - Oncocytoma
Ireland (University College Hospital) - Oncocytoma, kidney
Japan (Asashi General Hospital) - Oncocytoma
Japan (Kyoto University Hospital) - Oncocytoma
Saudi Arabia (King Abdulaziz Medical City Group) - Oncocytoma
United Kingdom (John Radcliffe Hospital) - Oncocytoma
Oman (Sultanat of Oman) - Oncocytoma

Case 5 - Diagnosis:

Oncocytoma, kidney
 T-71000, M-82900

Case 5 - References:

Wunderlich H, Hindermann W, Al Mustafa AM, et al. The Accuracy of 250 Fine Needle Biopsies of Renal Tumors. *J Urol* 2005; 174(6):2422.
 Caveolin-1 Immunohistochemical Analysis in Differentiating Chromophobe Renal Cell Carcinoma from Renal Oncocytoma. *Am J Clin Pathol* 2006; 125(3):392-398.
 Al-Saleem T, Cairns P, Dulaimi EA, et al. The Genetics of Renal Oncocytosis. A Possible Model for Neoplastic Progression. *Cancer Genet Cytogenet* 2004; 152(1):23-28.

Case No. 6, Accession No. 30703

February 2008

Alameda (Alameda County Medical Center) - Renal cell carcinoma, high-grade
Arcadia (ABC Laboratories) - Oncocytic carcinoma
Fontana (Kaiser Permanente) - Transitional cell carcinoma
Hayward/Fremont - Renal cell carcinoma, Fuhrman, grade IV
La Jolla (Scripps Clinic) - Grade IV renal cell carcinoma, favor chromophobe type
Long Beach (Long Beach Veterans Hospital) - Poorly differentiated malignant neoplasm favor high grade transitional cell carcinoma (2)
Mountain View (El Camino Hospital) - Renal cell carcinoma, grade 3, granular cell type
Oakland - Renal cell carcinoma (? Adenosquamous)
Orange (Orange County Pathology) - High grade carcinoma
Oxnard (St. John's Regional Medical Center) - Renal cell carcinoma, granular type (2; Oncocytoma (1)
San Diego (Naval Medical Center) - Urothelial carcinoma
San Diego (RCRMC) - Renal cell carcinoma, chromophobe type
San Francisco (UCSF Fellows) - Urothelial carcinoma
San Francisco (San Francisco General Hospital) - Chromophobe renal cell carcinoma
Santa Barbara - Renal cell carcinoma
Santa Barbara (Cottage Hospital) - Transitional cell carcinoma, high grade
Santa Rosa (Santa Rosa Memorial Hospital) - Transitional cell carcinoma (1); Renal cell carcinoma with comedonecrosis (2)
Sonoma - Clear cell carcinoma, grade IV

Alabama (Baptist Medical Center) - Renal cell carcinoma, chromophobe
Alabama, Mt. Olive - Urothelial carcinoma, high grade
Colorado (McKee Medical Center) - Carcinoma with neuroendocrine features, possible adrenal origin
Florida (Tallahassee Pathology Associates) - High grade urothelial carcinoma
Georgia, Decatur - Renal cell carcinoma, not otherwise specified (with rhabdoid cells)
Illinois, Burr Ridge - Renal cell carcinoma with clear cell features
Illinois (Heartland Regional Medical Center) - Poorly differentiated carcinoma, favor urothelial carcinoma
Indiana (MacNeal Hospital) - Collecting duct carcinoma vs. high-grade urothelial carcinoma
Indiana (St. Joseph Hospital) - Renal cell carcinoma, granular cell variant (1); High grade renal cell carcinoma, rule out melanoma (1)
Kansas (Cytocheck Laboratory) - Metastatic carcinoma (1); Renal cell carcinoma, grade IV (1)
Louisiana (Orleans Parish Coroner's Office) - Chromophobe cell carcinoma
Massachusetts (Berkshire Medical Center) - High grade carcinoma, favor chromophobe
Massachusetts (Tufts-New England Medical Center) - Collecting duct carcinoma
Massachusetts (UMASS Memorial Medical Center) - Unclassified high grade renal cell carcinoma
Michigan (Pathology Services of West Michigan) - Renal cell carcinoma
Minnesota (Fairview Ridges Hospital) - Renal cell carcinoma, clear cell type
Nebraska (Creighton University Medical Center) - Collecting duct renal cell carcinoma
New Mexico (Albuquerque) - Papillary renal cell carcinoma, type 2
New Mexico (University of New Mexico) - High-grade renal cell carcinoma, NOS
New York (ECMC) - Clear cell carcinoma with sarcomatoid features
New York (Long Island Jewish Medical Center) - High grade renal cell carcinoma, NOS
New York (Stony Brook University Medical Center) - Malignant neoplasm, NOS
Ohio (McCullough-Hyde Memorial Hospital) - Chromophobe renal cell carcinoma
Pennsylvania (Connaught Memorial Hospital) - Renal cell carcinoma, clear cell type, Fuhrman, grade IV
Pennsylvania (Drexel Medical Center) - Renal cell carcinoma with rhabdoid differentiation
Pennsylvania (Lehigh Valley Hospital) - Collecting duct carcinoma
Pennsylvania (Magee Women's Hospital) - Renal cell carcinoma, clear cell, eosinophilic variant
Pennsylvania (St. Elizabeth Health Center) - Renal cell carcinoma, high grade
Tennessee (East Tennessee State University) - Undifferentiated carcinoma
Texas, Crystal Beach - Renal cell carcinoma, chromophobe cell
Texas, Houston - Carcinoma, possible transitional cell carcinoma cannot rule out chromophobe
Texas, Lubbock - Chromophobe carcinoma
Texas (Scott & White Memorial Hospital) - Renal cell carcinoma, clear cell type
Texas (The Methodist Hospital) - Clear cell renal cell carcinoma (nuclear, grade IV)
Washington (Seattle VA Medical Center) - Renal cell carcinoma, high grade cytology
West Virginia (Greenbrier Valley Medical Center) - Renal cell carcinoma
Australia (Royal Hobart Hospital) - High grade urothelial carcinoma
Brazil, Sao Paulo - Clear cell carcinoma vs. epithelioid angiosarcoma
Canada (Pasqua Hospital) - Clear cell carcinoma
Canada (University Hospital Sherbrooke) - Clear cell carcinoma
Hong Kong (Hong Kong Baptist Hospital) - Poorly differentiated carcinoma (collecting duct carcinoma)
Ireland (Kerry General Hospital) - Renal cell carcinoma, ? collecting duct type
Ireland (University College Hospital) - Oncocytoma variant renal cell carcinoma
Japan (Asahi General Hospital) - Renal cell carcinoma, clear cell type
Japan (Kyoto University Hospital) - High grade renal cell carcinoma (chromophobe ? or unclassified)
Saudi Arabia (King Abdulaziz Medical City Group) - High grade carcinoma, probably urothelial carcinoma
United Kingdom (John Radcliffe Hospital) - High grade carcinoma, possibly transitional cell
Oman (Sultanat of Oman) - Renal cell carcinoma unclassified; DDX: Transitional cell carcinoma

Case 6- Diagnosis:

Poorly differentiated renal cell carcinoma with granular cell features, kidney
 T-71000, M-83123

Case 6 - References:

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Itoh T, Chikai K, Ota S, et al. Chromophobe Renal Cell Carcinoma with Osteosarcoma-Like Differentiation. *Am J Surg Pathol* 2002; 26(10):1358-1362.

Lohse CM and Cheville JC. A Review of Prognostic Pathologic Features and Algorithms for Patients Treated Surgically For Renal Cell Carcinoma. *Clin Lab Med* 2005; 25(2):433-464.

Barocas DA, Rohan SM, Kao J, et al. Diagnosis of Renal Tumors on Needle Biopsy Specimens By Histological and Molecular Analysis. *J Urol* 2006; 176(5):1957-1962.

Perez-Montiel D, Wakely PE, Hes O, et al. High-Grade Urothelial Carcinoma of the Renal Pelvis. Clinicopathologic Study of 108 Cases With Emphasis on Unusual Morphologic Variants. *Mod Pathol* 2006; 19(4):494-503.

Case No. 7, Accession No. 30681

February 2008

Alameda (Alameda County Medical Center) - Renal cell carcinoma, papillary

Arcadia (ABC Laboratories) - Clear cell adenoma, rule out early carcinoma

Fontana (Kaiser Permanente) - Papillary renal cell carcinoma

Hayward/Fremont - Papillary renal cell carcinoma

La Jolla (Scripps Clinic) - Renal cell carcinoma, papillary type

Long Beach (Long Beach Veterans Hospital) - Renal papillary cell carcinoma (7)

Mountain View (El Camino Hospital) - Papillary renal cell carcinoma

Oakland - Carcinoid

Orange (Orange County Pathology) - Renal cell papillary carcinoma

Oxnard (St. John's Regional Medical Center) - Renal cell carcinoma, granular cell type (3)

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

San Diego (RCRMC) - Papillary renal cell carcinoma

San Francisco (UCSF Fellows) - Papillary renal cell carcinoma

San Francisco (San Francisco General Hospital) - Collecting duct renal cell carcinoma

Santa Barbara - Metanephric adenoma

Santa Barbara (Cottage Hospital) - Papillary renal cell carcinoma

Santa Rosa (Santa Rosa Memorial Hospital) - Papillary carcinoma of kidney (1); Papillary renal cell carcinoma, type I (1); Papillary renal cell carcinoma (1)

Sonoma - Papillary renal cell carcinoma, grade I

Alabama (Baptist Medical Center) - Renal cell carcinoma, papillary

Alabama, Mt. Olive - Papillary renal cell carcinoma

Colorado (McKee Medical Center) - Papillary renal cell carcinoma

Florida (Tallahassee Pathology Associates) - Low grade urothelial carcinoma

Georgia, Decatur - Papillary renal cell carcinoma

Illinois, Burr Ridge - Renal cell carcinoma, papillary

Illinois (Heartland Regional Medical Center) - Papillary renal cell carcinoma

Indiana (MacNeal Hospital) - Papillary renal cell carcinoma

Indiana (St. Joseph Hospital) - Papillary renal cell carcinoma (1); Renal cell carcinoma, grade II (1)

Kansas (Cytocheck Laboratory) - Papillary renal cell carcinoma (2)

Louisiana (Orleans Parish Coroner's Office) - Tubulopapillary adenoma

Massachusetts (Berkshire Medical Center) - Papillary renal cell carcinoma, type I

Massachusetts (Tufts-New England Medical Center) - Papillary renal cell carcinoma

Massachusetts (UMASS Memorial Medical Center) - Papillary renal cell carcinoma

Michigan (Pathology Services of West Michigan) - Renal cell carcinoma, papillary

Minnesota (Fairview Ridges Hospital) - Renal cell carcinoma, papillary

Nebraska (Creighton University Medical Center) - Papillary renal cell carcinoma, type I

New Mexico (Albuquerque) - Papillary renal cell carcinoma, type I

New Mexico (University of New Mexico) - Papillary renal cell carcinoma, type I

New York (ECMC) - Papillary renal cell carcinoma

New York (Long Island Jewish Medical Center) - Papillary carcinoma, type I

New York (Stony Brook University Medical Center) - Papillary renal cell carcinoma, type I

Ohio (McCullough-Hyde Memorial Hospital) - Papillary renal cell carcinoma

Pennsylvania (Connaugh Memorial Hospital) - Renal cell carcinoma, papillary type, type I

Pennsylvania (Drexel Medical Center) - Papillary carcinoma

Pennsylvania (Lehigh Valley Hospital) - Papillary renal cell carcinoma

Pennsylvania (Magee Women's Hospital) - Papillary renal cell carcinoma, type I
Pennsylvania (St. Elizabeth Health Center) - Papillary renal cell carcinoma, (bastophilic type)
Tennessee (East Tennessee State University) - Papillary type renal cell carcinoma
Texas, Crystal Beach - Renal cell carcinoma, papillary
Texas, Houston - Papillary renal cell carcinoma
Texas, Lubbock - Papillary renal cell carcinoma
Texas (Scott & White Memorial Hospital) - Papillary renal cell carcinoma
Texas (The Methodist Hospital) - Papillary renal cell carcinoma, type I
Washington (Seattle VA Medical Center) - Papillary renal cell carcinoma
West Virginia (Greenbrier Valley Medical Center) - Papillary adenoma
Australia (Royal Hobart Hospital) - Papillary renal cell carcinoma, type 2
Brazil, Sao Paulo - Papillary carcinoma, type 1
Canada (Pasqua Hospital) - Papillary carcinoma
Canada (University Hospital Sherbrooke) - Papillary carcinoma, type I
Hong Kong (Hong Kong Baptist Hospital) - Papillary renal cell carcinoma
Ireland (Kerry General Hospital) - Papillary renal cell carcinoma
Ireland (University College Hospital) - Papillary renal cell carcinoma
Japan (Asahi General Hospital) - Papillary renal cell carcinoma, type I
Japan (Kyoto University Hospital) - Papillary renal cell carcinoma, type I
Saudi Arabia (King Abdulaziz Medical City Group) - Papillary renal cell carcinoma
United Kingdom (John Radcliffe Hospital) - Papillary renal cell carcinoma, type I
Oman (Sultanat of Oman) - Papillary renal cell carcinoma

Case 7 - Diagnosis:

Papillary renal cell carcinoma
 T-71000, M-83123

Case 7 - References:

Lim JC and Wojcik EM. Fine-Needle Aspiration Cytology of Papillary Renal Cell Carcinoma. The Association with Concomitant Secondary Malignancies. *Diagn Cytopathol* 2006; 34(12):797-800.
 Yamanaka K, Miyake H, Hara I, et al. Papillary Renal Cell Carcinoma. A Clinicopathological Study of 35 Cases. *Int J Urol* 2006; 13(8): 1049-1052.
 Hoglund M, Gisselsson D, Soller M, et al. Dissecting Karyotypic Patterns in Renal Cell Carcinoma. An Analysis of the Accumulated Cytogenetic Data. *Cancer Genet Cytogenet* 2004; 153(1):1-9.
 Reuter VE. The Pathology of Renal Epithelial Neoplasms. *Semin Oncol* 2006; 33(5): 534-543.

Case No. 8, Accession No. 30563

February 2008

Alameda (Alameda County Medical Center) - Small cell carcinoma
Arcadia (ABC Laboratories) - Small cell anaplastic carcinoma, possible neuroendocrine differentiation
Fontana (Kaiser Permanente) - Small cell neuroendocrine carcinoma
Hayward/Fremont - Small cell carcinoma
La Jolla (Scripps Clinic) - Poorly differentiated small cell carcinoma
Long Beach (Long Beach Veterans Hospital) - Small cell carcinoma (7)
Mountain View (El Camino Hospital) - Small cell neuroendocrine carcinoma
Oakland - Small cell carcinoma
Orange (Orange County Pathology) - Small cell poorly differentiated carcinoma
Oxnard (St. John's Regional Medical Center) - Small cell carcinoma (3)
San Diego (Naval Medical Center) - Small cell carcinoma
San Diego (RCRMC) - Small cell carcinoma, bladder
San Francisco (UCSF Fellows) - Small cell carcinoma
San Francisco (San Francisco General Hospital) - Small cell undifferentiated carcinoma
Santa Barbara - Small cell carcinoma
Santa Barbara (Cottage Hospital) - Neuroendocrine carcinoma, grade III, small cell
Santa Rosa (Santa Rosa Memorial Hospital) - Neuroendocrine carcinoma vs. large cell lymphoma (1); Small cell anaplastic carcinoma (2)

Sonoma - Poorly differentiated small cell carcinoma of bladder
Alabama (Baptist Medical Center) - Small cell carcinoma
Alabama, Mt. Olive - Small cell carcinoma
Colorado (McKee Medical Center) - Small cell carcinoma
Florida (Tallahassee Pathology Associates) - Small cell carcinoma
Georgia, Decatur - Small cell carcinoma
Illinois, Burr Ridge - Small cell carcinoma
Illinois (Heartland Regional Medical Center) - Small cell anaplastic carcinoma
Indiana (MacNeal Hospital) - Small cell carcinoma
Indiana (St. Joseph Hospital) - Small cell carcinoma (undifferentiated carcinoma) (1); Neuroendocrine carcinoma vs. lymphoma (1)
Kansas (Cytocheck Laboratory) - Poorly differentiated small cell carcinoma (2)
Louisiana (Orleans Parish Coroner's Office) - Small cell carcinoma
Massachusetts (Berkshire Medical Center) - Small cell carcinoma
Massachusetts (Tufts-New England Medical Center) - High grade transitional cell carcinoma
Massachusetts (UMASS Memorial Medical Center) - Small cell carcinoma of bladder
Michigan (Pathology Services of West Michigan) - Small cell carcinoma
Minnesota (Fairview Ridges Hospital) - Small cell carcinoma
Nebraska (Creighton University Medical Center) - Small cell carcinoma of bladder
New Mexico (Albuquerque) - Small cell carcinoma
New Mexico (University of New Mexico) - Small cell carcinoma of the bladder
New York (ECMC) - Poorly differentiated small cell carcinoma
New York (Long Island Jewish Medical Center) - Small cell carcinoma
New York (Stony Brook University Medical Center) - Small cell urothelial carcinoma
Ohio (McCullough-Hyde Memorial Hospital) - Small cell carcinoma
Pennsylvania (Connaught Memorial Hospital) - Small cell carcinoma
Pennsylvania (Drexel Medical Center) - Small cell carcinoma
Pennsylvania (Lehigh Valley Hospital) - Small cell carcinoma
Pennsylvania (Magee Women's Hospital) - Small cell carcinoma
Pennsylvania (St. Elizabeth Health Center) - Small cell carcinoma
Tennessee (East Tennessee State University) - Small cell carcinoma
Texas, Crystal Beach - Carcinoma bladder small cell (neuroendocrine?)
Texas, Houston - Small cell carcinoma
Texas, Lubbock - Small cell carcinoma
Texas (Scott & White Memorial Hospital) - Small cell carcinoma
Texas (The Methodist Hospital) - Small cell carcinoma
Washington (Seattle VA Medical Center) - Malignant neoplasm, high grade (stem cell), cytology
West Virginia (Greenbrier Valley Medical Center) - Poorly differentiated small cell carcinoma
Australia (Royal Hobart Hospital) - Small cell carcinoma
Brazil, Sao Paulo - High grade urothelial carcinoma with differentiation to neuroendocrine small cell carcinoma
Canada (Pasqua Hospital) - Small cell carcinoma
Canada (University Hospital Sherbrooke) - Small cell carcinoma
Hong Kong (Hong Kong Baptist Hospital) - Small cell carcinoma
Ireland (Kerry General Hospital) - Small cell carcinoma of bladder
Ireland (University College Hospital) - High grade neuroendocrine tumor
Japan (Asahi General Hospital) - Small cell carcinoma
Japan (Kyoto University Hospital) - Neuroendocrine carcinoma
Saudi Arabia (King Abdulaziz Medical City Group) - Small cell carcinoma
United Kingdom (John Radcliffe Hospital) - Small cell carcinoma (? metastasis)
Oman (Sultanat of Oman) - High grade invasive urothelial carcinoma; DDx: Small cell carcinoma

Case 8 - Diagnosis:

Small cell carcinoma, bladder and prostate
 T-77100, M-80413

Case 8 - References:

Church DN and Bahl A. Clinical Review. Small Cell Carcinoma of the Bladder. *Cancer Treat Rev* 2006; 32(8):588-593.

Montie JE. Small Cell Carcinoma of the Urinary Bladder. A Clinicopathologic Analysis of 64 Patients. *J Urol* 2005; 173(6):1920-1921.

Cheng L and Jones TD. Molecular Genetic Evidence for a Common Clonal Origin of Urinary Bladder Small Cell Carcinoma and Coexisting Urothelial Carcinoma. *Am J Pathol* 2005; 166(5):1533-1539.

Helpap B. Morphology and Therapeutic Strategies for Neuroendocrine Tumors of the Genitourinary Tract. *Cancer* 2002; 22(1):88-104.

Case No. 9, Accession No. 30721

February 2008

Alameda (Alameda County Medical Center) - Papillary urothelial carcinoma, low grade

Arcadia (ABC Laboratories) - Moderately differentiated papillary urothelial carcinoma

Fontana (Kaiser Permanente) - Transitional cell carcinoma

Hayward/Fremont - Transitional cell carcinoma, low grade

La Jolla (Scripps Clinic) - Papillary urothelial carcinoma, low grade

Long Beach (Long Beach Veterans Hospital) - Papillary urothelial carcinoma (7)

Mountain View (El Camino Hospital) - Low-grade papillary urothelial carcinoma

Oakland - Inverted papilloma (vs. low grade carcinoma)

Orange (Orange County Pathology) - Transitional cell carcinoma

Oxnard (St. John's Regional Medical Center) - Transitional cell carcinoma (1); Papillary transitional neoplasm of low malignant potential (2)

San Diego (Naval Medical Center) - Low grade papillary urothelial carcinoma

San Diego (RCRMC) - Transitional cell carcinoma, low grade

San Francisco (UCSF Fellows) - Papilloma

San Francisco (San Francisco General Hospital) - Low grade papillary urothelial carcinoma

Santa Barbara - Low grade papillary urothelial carcinoma

Santa Barbara (Cottage Hospital) - Papillary urothelial carcinoma, low-grade

Santa Rosa (Santa Rosa Memorial Hospital) - Transitional cell carcinoma, grade I/III (1); Non-invasive papillary urothelial carcinoma, low-grade (2)

Sonoma - Papillary urothelial carcinoma, low-grade

Alabama (Baptist Medical Center) - Papillary urothelial carcinoma, low-grade

Alabama, Mt. Olive - Low-grade papillary urothelial carcinoma, non-invasive

Colorado (McKee Medical Center) - Low-grade papillary urothelial carcinoma

Florida (Tallahassee Pathology Associates) - Low-grade urothelial carcinoma

Georgia, Decatur - Papillary urothelial carcinoma, high-grade

Illinois, Burr Ridge - Papillary transitional cell carcinoma

Illinois (Heartland Regional Medical Center) - Low-grade urothelial carcinoma

Indiana (MacNeal Hospital) - Urothelial carcinoma, grade I to II

Indiana (St. Joseph Hospital) - Papillary urothelial carcinoma, transitional cell carcinoma, low-grade

Kansas (Cytocheck Laboratory) - Transitional cell carcinoma (1); Low-grade urothelial carcinoma (1)

Louisiana (Orleans Parish Coroner's Office) - Papillary transitional cell carcinoma, grade I

Massachusetts (Berkshire Medical Center) - Urothelial carcinoma, low grade

Massachusetts (Tufts-New England Medical Center) - Transitional cell carcinoma

Massachusetts (UMASS Memorial Medical Center) - Urothelial carcinoma, low-grade

Michigan (Pathology Services of West Michigan) - Transitional cell carcinoma I/III

Minnesota (Fairview Ridges Hospital) - Papillary urothelial carcinoma, low-grade

Nebraska (Creighton University Medical Center) - Urothelial carcinoma, low-grade

New Mexico (Albuquerque) - Papillary urothelial carcinoma, low-grade

New Mexico (University of New Mexico) - Non-invasive low-grade papillary carcinoma

New York (ECMC) - Urothelial cell carcinoma

New York (Long Island Jewish Medical Center) - Urothelial carcinoma, low-grade

New York (Stony Brook University Medical Center) - Papillary urothelial carcinoma, low-grade, non-invasive

Ohio (McCullough-Hyde Memorial Hospital) - Low-grade urothelial carcinoma

Pennsylvania (Connaught Memorial Hospital) - Non-invasive papillary urothelial carcinoma, low-grade

Pennsylvania (Drexel Medical Center) - Transitional cell carcinoma, low-grade

Pennsylvania (Lehigh Valley Hospital) - Papillary transitional cell carcinoma of low grade

Pennsylvania (Magee Women's Hospital) - Low-grade papillary urothelial carcinoma

Pennsylvania (St. Elizabeth Health Center) - Low-grade papillary urothelial carcinoma
Tennessee (East Tennessee State University) - Low-grade papillary urothelial carcinoma
Texas, Crystal Beach - Urothelial papillary transitional cell carcinoma
Texas, Houston - Papillary tumor of uncertain malignant potential
Texas, Lubbock - Low-grade papillary carcinoma
Texas (Scott & White Memorial Hospital) - Low-grade non-invasive papillary urothelial carcinoma
Texas (The Methodist Hospital) - Papillary urothelial carcinoma, low-grade
Washington (Seattle VA Medical Center) - Papillary urothelial neoplasia, low-grade cytology, invasive growth not evident
West Virginia (Greenbrier Valley Medical Center) - Urothelial carcinoma, papillary
Australia (Royal Hobart Hospital) - Low-grade urothelial carcinoma
Brazil, Sao Paulo - Low-grade papillary urothelial carcinoma (3); PUNLMP (2)
Canada (Pasqua Hospital) - Urothelial carcinoma, low-grade
Canada (University Hospital Sherbrooke) - Papillary neoplasia, low-malignant potential
Hong Kong (Hong Kong Baptist Hospital) - Papillary urothelial tumor of low malignant potential
Ireland (Kerry General Hospital) - Transitional cell carcinoma of bladder
Ireland (University College Hospital) - Papillary urothelial carcinoma
Japan (Asashi General Hospital) - Urothelial carcinoma with inverted growth pattern
Japan (Kyoto University Hospital) - Urothelial carcinoma, non-invasive, papillary, low-grade
Saudi Arabia (King Abdulaziz Medical City Group) - Papillary urothelial carcinoma, low-grade
United Kingdom (John Radcliffe Hospital) - Non-invasive papillary transitional cell carcinoma, grade II
Oman (Sultanat of Oman) - Papillary urothelial neoplasm of low malignant potential

Case 9 - Diagnosis:

Urothelial carcinoma in-situ, kidney and ureter
 T-73000, M-81203

Case 9 - References:

van der Meijden AP, Sylvester R, Oosterlinck W, et al. EAU Guidelines on the Diagnosis and Treatment of Urothelial Carcinoma In-Situ. *Eur Urol* 2005; 48(3):363-371.
 Broussard JN, Tan PH, Epstein JI, et al. Atypia in Inverted Urothelial Papillomas. Pathology and Prognostic Significance. *Hum Pathol* 2004; 35(12):1499-1504.
 Santos L, Amaro T, Costa C, et al. Ki-67 Index Enhances the Prognostic Accuracy of the Urothelial Superficial Bladder Carcinoma Risk Group Classification. *Int J Cancer* 2003; 105(2):267-272.
 Swierczynski SL and Epstein JI. Prognostic Significance of Atypical Papillary Urothelial Hyperplasia. *Hum Pathol* 2002; 33(5):512-517.
 Montironi R, Lopez-Beltran A, Mazzucchelli R, et al. Classification and Grading of the Non-Invasive Urothelial Neoplasms. Recent Advances and Controversies. *J Clin Pathol* 2003; 56(2):91-95.

Case No. 10, Accession No. 30680

February 2008

Alameda (Alameda County Medical Center) - Urothelial carcinoma, high-grade, invasive
Arcadia (ABC Laboratories) - Poorly differentiated urothelial carcinoma
Fontana (Kaiser Permanente) - Transitional cell carcinoma
Hayward/Fremont - Transitional cell carcinoma, high-grade
La Jolla (Scripps Clinic) - Collecting duct carcinoma
Long Beach (Long Beach Veterans Hospital) - High grade transitional cell carcinoma (7)
Mountain View (El Camino Hospital) - High grade invasive urothelial carcinoma
Oakland - Adenosquamous carcinoma
Orange (Orange County Pathology) - Poorly differentiated carcinoma (transitional cell)
Oxnard (St. John's Regional Medical Center) - Transitional cell carcinoma (1); High-grade papillary transitional cell carcinoma (2)
San Diego (Naval Medical Center) - Urothelial carcinoma
San Diego (RCRMC) - Transitional cell carcinoma, high-grade
San Francisco (UCSF Fellows) - Urothelial carcinoma
San Francisco (San Francisco General Hospital) - Adrenal cortical carcinoma

Santa Barbara - High-grade urothelial carcinoma
Santa Barbara (Cottage Hospital) - Urothelial carcinoma, high-grade
Santa Rosa (Santa Rosa Memorial Hospital) - Transitional cell carcinoma, grade III/III (1); High-grade invasive urothelial carcinoma (1); Invasive urothelial carcinoma (1)
Sonoma - Urothelial carcinoma, high-grade
Alabama (Baptist Medical Center) - Urothelial carcinoma, high-grade
Alabama, Mt. Olive - Urothelial carcinoma, high-grade
Colorado (McKee Medical Center) - Invasive high-grade urothelial carcinoma
Florida (Tallahassee Pathology Associates) - High-grade urothelial carcinoma
Georgia, Decatur - High-grade invasive urothelial carcinoma
Illinois, Burr Ridge - Transitional cell carcinoma, high-grade
Illinois (Heartland Regional Medical Center) - High-grade invasive urothelial carcinoma
Indiana (MacNeal Hospital) - High-grade urothelial carcinoma
Indiana (St. Joseph Hospital) - Invasive urothelial carcinoma, transitional cell carcinoma, high-grade (1); Collecting duct carcinoma (1)
Kansas (Cytocheck Laboratory) - Undifferentiated carcinoma, ?squamous (1); Poorly differentiated carcinoma, ? urothelial (1)
Louisiana (Orleans Parish Coroner's Office) - High-grade transitional cell carcinoma
Massachusetts (Berkshire Medical Center) - Collecting duct carcinoma
Massachusetts (Tufts-New England Medical Center) - Transitional cell carcinoma
Massachusetts (UMASS Memorial Medical Center) - Transitional cell carcinoma, high-grade
Michigan (Pathology Services of West Michigan) - Transitional cell carcinoma, III/III
Minnesota (Fairview Ridges Hospital) - Urothelial carcinoma, high-grade
Nebraska (Creighton University Medical Center) - Urothelial carcinoma, high-grade
New Mexico (Albuquerque) - Urothelial carcinoma, high-grade
New Mexico (University of New Mexico) - High-grade urothelial carcinoma
New York (ECMC) - Adrenal cortical carcinoma
New York (Long Island Jewish Medical Center) - Urothelial carcinoma, high-grade
New York (Stony Brook University Medical Center) - Transitional cell carcinoma vs. collecting duct carcinoma
Ohio (McCullough-Hyde Memorial Hospital) - Metastatic urothelial carcinoma
Pennsylvania (Connaught Memorial Hospital) - Metastatic urothelial carcinoma, high-grade
Pennsylvania (Drexel Medical Center) - Transitional cell carcinoma, high-grade
Pennsylvania (Lehigh Valley Hospital) - Transitional cell carcinoma, high-grade
Pennsylvania (Magee Women's Hospital) - High grade urothelial carcinoma
Pennsylvania (St. Elizabeth Health Center) - Squamous cell carcinoma
Tennessee (East Tennessee State University) - Renal cell carcinoma
Texas, Crystal Beach - Carcinoma urothelial high-grade transitional squamous differentiation
Texas, Houston - Transitional cell carcinoma
Texas, Lubbock - Metastatic high-grade urothelial carcinoma
Texas (Scott & White Memorial Hospital) - High-grade invasive urothelial carcinoma
Texas (The Methodist Hospital) - Infiltrating urothelial carcinoma
Washington (Seattle VA Medical Center) - High-grade carcinoma, could be urothelial metastatic to adrenal
West Virginia (Greenbrier Valley Medical Center) - Poorly differentiated squamous cell carcinoma
Australia (Royal Hobart Hospital) - High-grade urothelial carcinoma
Brazil, Sao Paulo - High-grade urothelial carcinoma with lymphatic dissemination
Canada (Pasqua Hospital) - Urothelial carcinoma, high-grade
Canada (University Hospital Sherbrooke) - Papillary urothelial carcinoma, high-grade
Hong Kong (Hong Kong Baptist Hospital) - Invasive urothelial carcinoma, high-grade
Ireland (Kerry General Hospital) - Carcinoma, ?renal or adrenal
Ireland (University College Hospital) - High-grade metastatic urothelial carcinoma
Japan (Asashi General Hospital) - Urothelial carcinoma, high-grade
Japan (Kyoto University Hospital) - Urothelial carcinoma, infiltrating
Saudi Arabia (King Abdulaziz Medical City Group) - Urothelial carcinoma, high-grade
United Kingdom (John Radcliffe Hospital) - Transitional cell carcinoma, grade III
Oman (Sultanat of Oman) - Carcinoma of collecting ducts of Bellini's vs. transitional cell carcinoma

Case 10 - Diagnosis:

High grade urothelial (transitional) carcinoma, kidney
T-71000, M-81203

Case 10 - References:

- Olgac S, Mazumdar M, Dalbagni G, et al. Urothelial Carcinoma of the Renal Pelvis. A Clinicopathologic Study of 130 Cases. *Am J Surg Pathol* 2004; 28(12):1545-1552.
- Perez-Montiel D, Hes O, Michal M, et al. Micropapillary Urothelial Carcinoma of the Upper Urinary Tract. Clinicopathologic Study of Five Cases. *Am J Surg Pathol* 2006; 126(1):86-92.
- Parwant AV, Herawi M, Volmar K, et al. Urothelial Carcinoma with Rhabdoid Features. Report of 6 Cases. *Hum Pathol* 2006; 37(2):168-172.
- Holmang S and Johansson SL. Urothelial Carcinoma of the Upper Urinary Tract. Comparison Between the WHO/ISUP 1998 Consensus Classification and WHO 1999 Classification System. *Urol* 2005; 66(2):274-278.