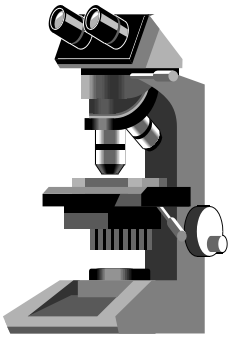
CALIFORNIA
TUMOR TISSUE REGISTRY

TUMORS OF THE KIDNEY AND BLADDER PATHOLOGY

Minutes – Subscription A

February, 2007



SUGGESTED READING (General Topics from Recent Literature):

Lymphoma Is the Most Common Malignancy of the Ocular Adnexa. Ferry JA, Fung CY, et al. *Am J Surg Pathol* 2007; 31:170-184.
Women More Likely to Have New or Missed CRC After Colonoscopy. Bressler B, Paszat LF, et al. *Gastroenterol* 2007; 132:96-102.
Mammaglobin Is a Specific Marker for Breast Cancer. Sasaki E, Tsunoda N, et al. *Mod Pathol* 2006; 22.
TLE1 Is a Sensitive & Specific Marker for Synovial Sarcomas. Terry J, Saito T, et al. *Am J Surg Pathol* 2007; 31:240-246.
Clear Cell Sarcoma. Clinical Features, Therapy, & Prognosis. Kawai A, Hosono A, et al. *Cancer* 2007; 109:109-116.

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FILE DIAGNOSES

(Preferably submitted on website at www.cttr.org. Click "subscriptions", then submit answers".)

CTTR Subscription A February, 2007

Case 1:

Papillary urothelial carcinoma, bladder
T-71000, M-80503

Case 2:

Carcinosarcoma (sarcomatoid high grade urothelial carcinoma with chondrosarcoma and osteosarcoma, bladder
T-77100, M-92203

Case 3:

Mucinous adenocarcinoma, bladder
T-71000, M-81403

Case 4:

Angiomyolipoma, kidney
T-71000, M-88600

Case 5:

Leiomyosarcoma, kidney
T-71000, M-88903

Case 6:

Mixed epithelial and stromal tumor, kidney
T-71000, M-81003

Case 7:

Solitary fibrous tumor, kidney
T-71000, M-90510

Case 8:

High grade sarcoma, (NOS), kidney
T-71000, M-88103

Case 9:

Renal cell carcinoma with papillary and tubulocystic features, kidney
T-71000, M-83123

Case 10:

Collecting duct carcinoma, kidney
T-71000, M-83123

Case No. 1, Accession No. 30272 **February 2007**

Alameda (Alameda County Medical Center) - Papillary urothelial carcinoma, low grade
Fontana (Kaiser Permanente) - Transitional cell carcinoma, grade 2/3
Granada Hills - Invasive transitional cell carcinoma, no muscle involvement
Long Beach - Invasive papillary urothelial carcinoma, high grade
Long Beach (Long Beach Veterans Hospital) - Papillary urothelial carcinoma, WHO 2/3
Los Angeles - Transitional cell carcinoma
Monterey (Community Hospital of Monterey Peninsula) - Papillary urothelial carcinoma, high grade (2); Low grade (1)
Oakland - Low grade papillary carcinoma
Orange (Orange County Pathology Medical Group) - Papillary transitional cell carcinoma, low grade
Oxnard (St. John's Regional Medical Center) - Papillary transitional cell carcinoma, grade I/II, low grade papillary carcinoma (1); Papillary transitional cell carcinoma (2)
San Diego - Papillary transitional cell carcinoma, focally invasive, grade I, bladder
San Diego (Naval Medical Center San Diego) - Infiltrating urothelial carcinoma
San Diego (Scripps Health) - Low grade papillary urothelial carcinoma
San Diego (UCSD) - Papillary and sessile urothelial carcinoma, low grade
San Francisco (San Francisco General Hospital) - Low grade urothelial carcinoma
Santa Barbara - Low grade papillary urothelial carcinoma
Santa Rosa (Santa Rosa Memorial Hospital) - Transitional cell carcinoma (1); Papillary urothelial carcinoma, low grade (1) Papillary transitional cell carcinoma, low grade (papillary urothelial tumor) (1)
Woodland Hills (Kaiser Permanente) - Non-invasive papillary urothelial carcinoma, low grade
Woodland Hills (Suda's Soldiers) - Urothelial carcinoma, grade 2, (non-invasive)
Arkansas (University of Arkansas for Medical Sciences) - Non-invasive papillary urothelial carcinoma, high grade, urinary bladder
Georgia, Decatur - Papillary urothelial carcinoma
Illinois, Burr Ridge - Papillary urothelial carcinoma (1); Urothelial carcinoma, grade I-II, non-invasive or microinvasive (1)
Illinois (Loyola University Medical Center) - Diffuse large B-cell lymphoma
Indiana (Howard Regional Medical Center) - Low grade papillary neoplasm
Maryland (Northwest Hospital Center) - High grade papillary urothelial carcinoma
Maryland (University of Maryland) - Infiltrating urothelial carcinoma, high grade
Massachusetts (Berkshire Medical Center) - Papillary carcinoma, non-invasive
Massachusetts (Beverly Hospital) - Non-invasive low grade papillary urothelial carcinoma
Michigan (Oakwood Hospital) - Papillary urothelial carcinoma, non-invasive
Minnesota (Fairview Ridges Hospital) - Papillary urothelial carcinoma, low-grade
Nebraska (Creighton University School of Medicine) - Low grade papillary urothelial carcinoma
New Mexico (University of New Mexico) - Papillary urothelial carcinoma
New York (Long Island Jewish Medical Center) - Invasive low grade papillary urothelial carcinoma
New York (Nassau University Medical Center) - Urothelial carcinoma, papillary
New York (Stony Brook University Hospital) - Transitional cell carcinoma, carcinoma in-situ
New York (SUNY Downstate Medical Center) - Papillary transitional cell carcinoma
North Carolina (Mountain Area Pathology) - High grade papillary transitional cell carcinoma (1); Transitional cell carcinoma, low grade (1)
Ohio (McCullough-Hyde Memorial Hospital) - Papillary urothelial carcinoma
Oklahoma, Tulsa - Papillary urothelial carcinoma, low grade
Pennsylvania (Drexel University College of Medicine) - Non-invasive papillary urothelial carcinoma, low grade
Pennsylvania (Lehigh Valley Hospital) - Papillary transitional cell carcinoma, grade II/III
Pennsylvania (Magee Women's Hospital) - Low grade papillary urothelial carcinoma, non-invasive
Pennsylvania (Mt. Nittany Medical Center) - Low grade papillary urothelial carcinoma
Pennsylvania (Pennsylvania Hospital Residents) - Low grade transitional carcinoma
Puerto Rico (University of Puerto Rico) - Invasive urothelial carcinoma, high grade
South Dakota (University of South Dakota Residents) - Papillary urothelial carcinoma, grade III
Tennessee, Kingsport - Low grade, superficially invasive papillary transitional cell carcinoma
Texas (Scott & White Memorial Hospital) - Low grade papillary urothelial carcinoma
Texas, Houston - Papillary transitional carcinoma, high grade
Texas, Lubbock - Low grade papillary urothelial carcinoma in-situ
Washington (Madigan Army Medical Center) - Papillary urothelial carcinoma, low grade (9); High grade (3)
West Virginia (Greenbrier Valley Medical Center) - Papillary non-infiltrative urothelial carcinoma
Australia (Royal Hobart Hospital) - Low grade papillary urothelial carcinoma with a partially inverted growth pattern
Australia (Royal Prince Alfred Hospital) - Non-invasive papillary urothelial carcinoma, low grade
Australia (Sullivan Nicolaides Pathology) - Papillary urothelial carcinoma, low grade
Brazil (Laboratorio Anatomia Patologica Ecitologia - Papillary urothelial lesion of low grade potential

Brazil, Sao Paulo - Papillary urothelial carcinoma, high grade
Canada (Pasqua Hospital) - Inverted papilloma
Canada, Saskatoon - Papillary urothelial (transitional cell carcinoma) carcinoma, low grade
Canada (Sherbrooke University Hospital) - Low grade papillary invasive carcinoma
India, Karnataka - Papillary urothelial neoplasm of low malignant potential
Ireland (Kerry General Hospital) - Transitional cell carcinoma of bladder
Jamaica (The University of West Indies) - Low grade urothelial carcinoma
Japan (Kyoto University Hospital) - Urothelial carcinoma, non-invasive, papillary, low grade
Oman (Khoula Hospital) - Non invasive papillary urothelial carcinoma, low grade
Qatar (Hamad Medical Corporation) - Papillary urothelial carcinoma, low grade, non-invasive
Saudi Arabia (King Fahad National Guard Hospital) - Non-invasive papillary urothelial carcinoma (low-grade)
Saudi Arabia (Maternity and Children's Hospital) - Papillary urothelial carcinoma, low grade
The Netherlands, Amstelveen - Low grade urothelial cell carcinoma
United Kingdom (Oxford Study Group) - Low grade papillary urothelial carcinoma

Case 1 - Diagnosis:

Papillary urothelial carcinoma, bladder
T-71000, M-80503

Case 1 – References:

Choi YL, Lee SH, Kwon GY, et al. Overexpression of CD24. Association with Invasiveness in Urothelial Carcinoma of the Bladder. *Arch Pathol Lab Med* 2007; 131(2):275-281.

Malkowicz SB, van Poppel H, Mickisch G, et al. Muscle-Invasive Urothelial Carcinoma of the Bladder. *Urol* 2007; 69:3-16.

Raghavan D, Shipley WU, Garnick MB, et al. Biology and Management of Bladder Cancer. *N Eng J Med* 1990; 322:1129-1138.

Hrabon RH, Vanderriet P, Erozom YS, et al. Brief Report. Molecular Biology and Early Detection of Carcinoma of the Bladder. The Case of Hubert Humphrey. *N Eng J Med* 1994; 330:1276-1278.

Mostofi FK and Sesterhenn IA. Pathology of Epithelial Tumors and Carcinoma In-Situ of the Bladder. *Prog Clin Biol Res*; 1984; 162A:55-74.

Case No. 2, Accession No. 30203 February 2007

Alameda (Alameda County Medical Center) - Infiltrating urothelial carcinoma, sarcomatoid variant, with heterologous elements
Fontana (Kaiser Permanente) - Sarcoma vs. carcinosarcoma
Granada Hills - Carcinosarcoma vs. leiomyosarcoma
Long Beach - Carcinosarcoma with cartilagenous elements
Long Beach (Long Beach Veterans Hospital) - Carcinosarcoma
Los Angeles - Undifferentiated urothelial carcinoma
Monterey (Community Hospital of Monterey Peninsula) - Sarcomatoid urothelial carcinoma
Oakland - Carcinosarcoma
Orange (Orange County Pathology Medical Group) - Invasive high-grade urothelial/metaplastic carcinoma
Oxnard (St. John's Regional Medical Center) - High grade transitional cell carcinoma (2); Papillary transitional cell carcinoma (1)
San Diego - Urothelial carcinoma, sarcomatoid, bladder
San Diego (Naval Medical Center San Diego) - High grade sarcoma
San Diego (Scripps Health) - Carcinosarcoma
San Diego (UCSD) - Sarcomatoid carcinoma
San Francisco (San Francisco General Hospital) - Rhabdomyosarcoma
Santa Barbara - Poorly differentiated small cell carcinoma
Santa Rosa (Santa Rosa Memorial Hospital) - Carcinosarcoma (3)
Woodland Hills (Kaiser Permanente) - High grade urothelial carcinoma, sarcomatoid variant (with heterologous elements)
Woodland Hills (Suda's Soldiers) - Carcinosarcoma (chondrosarcoma)
Arkansas (University of Arkansas for Medical Sciences) - Urothelial carcinoma, sarcomatoid variant (heterologous), urinary bladder
Georgia, Decatur - Urothelial carcinoma with sarcomatoid change
Illinois, Burr Ridge - Urothelial carcinoma, high grade with sarcomatoid features (1); Infiltrating urothelial carcinoma, grade III (1)
Illinois (Loyola University Medical Center) - Medullary thyroid carcinoma
Indiana (Howard Regional Medical Center) - High grade papillary urothelial carcinoma

Maryland (Northwest Hospital Center) - Sarcomatoid urothelial carcinoma
Maryland (University of Maryland) - Sarcomatoid carcinoma with high grade urothelial carcinoma component
Massachusetts (Berkshire Medical Center) - Sarcomatoid and small cell carcinoma with heterologous elements (chondrosarcoma and osteosarcoma)
Massachusetts (Beverly Hospital) - Carcinosarcoma vs. pure sarcoma with sarcoma elements of chondrosarcoma
Michigan (Oakwood Hospital) - Sarcomatoid carcinoma, with background transitional cell in-situ
Minnesota (Fairview Ridges Hospital) - Urothelial carcinoma, high grade, with sarcomatoid differentiation
Nebraska (Creighton University School of Medicine) - Carcinosarcoma
New Mexico (University of New Mexico) - Sarcomatoid variant of urothelial carcinoma with heterologous elements
New York (Long Island Jewish Medical Center) - Sarcomatoid transitional cell carcinoma with heterologous elements
New York (Nassau University Medical Center) - Urothelial carcinoma, sarcomatoid
New York (Stony Brook University Hospital) - Transitional cell carcinoma (high grade)
New York (SUNY Downstate Medical Center) - Sarcomatoid carcinoma vs. sarcoma with rhabdoid differentiation
North Carolina (Mountain Area Pathology) - High grade transitional cell carcinoma and CIS (1); Sarcomatoid carcinoma (1)
Ohio (McCullough-Hyde Memorial Hospital) - Chondrosarcoma
Oklahoma, Tulsa - Urothelial carcinoma heterologous sarcomatoid type (carcinosarcoma)
Pennsylvania (Drexel University College of Medicine) - Sarcomatoid (spindle cell) carcinoma of bladder with chondrosarcomatous differentiation (carcinosarcoma)
Pennsylvania (Lehigh Valley Hospital) - Sarcomatoid carcinoma
Pennsylvania (Magee Women's Hospital) - Sarcomatoid carcinoma
Pennsylvania (Mt. Nittany Medical Center) - Urothelial carcinoma, heterologous sarcomatoid type
Pennsylvania (Pennsylvania Hospital Residents) - Carcinosarcoma
Puerto Rico (University of Puerto Rico) - Sarcomatoid (metaplastic) carcinoma
South Dakota (University of South Dakota Residents) - Carcinosarcoma
Tennessee, Kingsport - Renal sarcomatoid carcinoma
Texas (Scott & White Memorial Hospital) - Carcinosarcoma
Texas, Houston - Spindle cell carcinoma, poorly differentiated
Texas, Lubbock - Metaplastic urothelial carcinoma
Washington (Madigan Army Medical Center) - Urothelial carcinoma with heterologous sarcomatous elements (12)
West Virginia (Greenbrier Valley Medical Center) - Infiltrative carcinomatoid urothelial carcinoma
Australia (Royal Hobart Hospital) - Sarcomatoid variant of urothelial carcinoma with heterologous differentiation (chondrosarcoma)
Australia (Royal Prince Alfred Hospital) - Urothelial carcinoma, sarcomatoid variant with heterologous elements
Australia (Sullivan Nicolaides Pathology) - Metaplastic carcinoma
Brazil (Laboratorio Anatomia Patologica Ecitologia) - High grade sarcoma (osteosarcoma?)
Brazil, Sao Paulo - High grade urothelial carcinoma, sarcomatoid variant, with heterologous elements (chondrosarcoma)
Canada (Pasqua Hospital) - Carcinosarcoma vs. sarcoma
Canada, Saskatoon - Papillary urothelial (transitional cell) carcinoma, high grade
Canada (Sherbrooke University Hospital) - Sarcomatoid carcinoma with heterologous elements
India, Karnataka - Carcinosarcoma
Ireland (Kerry General Hospital) - Transitional cell carcinoma of bladder
Jamaica (The University of West Indies) - Sarcomatoid renal cell carcinoma
Japan (Kyoto University Hospital) - Invasive urothelial carcinoma, sarcomatoid variant, with heterologous elements
Oman (Khoula Hospital) - Infiltrating urothelial carcinoma, sarcomatoid variant with heterologous element
Qatar (Hamad Medical Corporation) - Invasive transitional cell carcinoma, high grade with sarcomatoid areas
Saudi Arabia (King Fahad National Guard Hospital) - Sarcomatoid carcinoma of the urinary bladder with heterologous differentiation
Saudi Arabia (Maternity and Children's Hospital) - Sarcomatoid (metaplastic) carcinoma
The Netherlands, Amstelveen - Sarcomatoid variant of an urothelial cell carcinoma
United Kingdom (Oxford Study Group) - Carcinosarcoma bladder

Case 2 - Diagnosis:

Carcinosarcoma (sarcomatoid high grade urothelial carcinoma with chondrosarcoma and osteosarcoma), bladder

T-77100, M-92203

Case 2 - References:

Hoshi S, Sasaki M, Muto A, et al. Case of Carcinosarcoma of Urinary Bladder Obtained a Pathologically Complete Response by Neoadjuvant Chemoradiotherapy. *Int J Urol* 2007; 14(1):79-81.

Shah SK, Lui PD, Baldwin DD, et al. Urothelial Carcinoma After External Beam Radiation Therapy for Prostate Cancer. *J Urol* 2006; 175(6):2063-2066.

Rogers CG, Palapattu GS, Shariat SF, et al. Clinical Outcomes Following Radical Cystectomy for Primary Nontransitional Cell Carcinoma of the Bladder Compared to Transitional Cell Carcinoma of the Bladder. *J Urol* 2006; 175(6):2048-2053.

Jayamohan Y, Urs L, Rowland RG, et al. Periurethral Carcinosarcoma. A Report of 2 Cases with a Review of the Literature. *Arch Pathol Lab Med* 2005; 129(4):e91-93.

McKenney JK. An Approach to the Classification of Spindle Cell Proliferations in the Urinary Bladder. *Adv in Anat Pathol* 2005; 12(6):312-323.

Case No. 3, Accession No. 30250 February 2007

Alameda (Alameda County Medical Center) - Adenocarcinoma, mucinous type

Fontana (Kaiser Permanente) - Urachal adenocarcinoma

Granada Hills - Mucinous adenocarcinoma

Long Beach - Mucinous adenocarcinoma with signet rings

Long Beach (Long Beach Veterans Hospital) - Mucinous adenocarcinoma with signet ring cells

Los Angeles - Mucinous signet ring cell carcinoma

Monterey (Community Hospital of Monterey Peninsula) - Mucinous (colloid) carcinoma

Oakland - Signet ring mucinous carcinoma

Orange (Orange County Pathology Medical Group) - Adenocarcinoma

Oxnard (St. John's Regional Medical Center) - Mucinous adenocarcinoma (4)

San Diego - Adenocarcinoma, mucinous, bladder

San Diego (Naval Medical Center San Diego) - Mucinous adenocarcinoma

San Diego (Scripps Health) - Poorly differentiated signet ring cell adenocarcinoma

San Diego (UCSD) - Mucinous adenocarcinoma

San Francisco (San Francisco General Hospital) - Mucinous carcinoid

Santa Barbara - Mucinous adenocarcinoma

Santa Rosa (Santa Rosa Memorial Hospital) - Mucin secreting adenocarcinoma (colloid carcinoma) (1); Mucinous/colloid adenocarcinoma (1); Colloid carcinoma (1)

Woodland Hills (Kaiser Permanente) - Mucinous adenocarcinoma

Woodland Hills (Suda's Soldiers) - Mucinous adenocarcinoma (colloid carcinoma)

Arkansas (University of Arkansas for Medical Sciences) - Urachal carcinoma, mucinous type, urinary bladder

Georgia, Decatur - Mucinous adenocarcinoma

Illinois, Burr Ridge - Mucinous carcinoma, signet cell (1); Adenocarcinoma with signet ring features and prominent mucin accumulation, rule out GI origin (1)

Illinois (Loyola University Medical Center) - Insular carcinoma

Indiana (Howard Regional Medical Center) - Mucinous adenocarcinoma (signet ring)

Maryland (Northwest Hospital Center) - Mucinous adenocarcinoma

Maryland (University of Maryland) - Mucinous adenocarcinoma

Massachusetts (Berkshire Medical Center) - Mucinous adenocarcinoma with signet ring features

Massachusetts (Beverly Hospital) - Adenocarcinoma, mucinous variant

Michigan (Oakwood Hospital) - Mucinous adenocarcinoma

Minnesota (Fairview Ridges Hospital) - Mucinous adenocarcinoma, urachal

Nebraska (Creighton University School of Medicine) - Mucinous adenocarcinoma

New Mexico (University of New Mexico) - Urachal carcinoma

New York (Long Island Jewish Medical Center) - Mucinous adenocarcinoma

New York (Nassau University Medical Center) - Mucinous adenocarcinoma

New York (Stony Brook University Hospital) - Urachal carcinoma (mucinous adenocarcinoma)

New York (SUNY Downstate Medical Center) - Mucinous adenocarcinoma, primary
North Carolina (Mountain Area Pathology) - Mucinous adenocarcinoma, urachal origin (2)
Ohio (McCullough-Hyde Memorial Hospital) - Adenocarcinoma, mucinous type
Oklahoma, Tulsa - Mucinous adenocarcinoma, urachal origin
Pennsylvania (Drexel University College of Medicine) - Mucinous adenocarcinoma (urachal carcinoma)
Pennsylvania (Lehigh Valley Hospital) - Mucinous adenocarcinoma, bladder
Pennsylvania (Magee Women's Hospital) - Adenocarcinoma, mucinous type
Pennsylvania (Mt. Nittany Medical Center) - Adenocarcinoma, mucinous and signet ring type
Pennsylvania (Pennsylvania Hospital Residents) - Mucinous adenocarcinoma
Puerto Rico (University of Puerto Rico) - Mucinous adenocarcinoma/signet-ring cell adenocarcinoma
South Dakota (University of South Dakota Residents) - Mucinous adenocarcinoma
Tennessee, Kingsport - Metastatic mucinous (colloid) carcinoma
Texas (Scott & White Memorial Hospital) - Mucinous adenocarcinoma
Texas, Houston - Mucinous adenocarcinoma
Texas, Lubbock - Mucinous adenocarcinoma
Washington (Madigan Army Medical Center) - Mucinous adenocarcinoma of the bladder (12)
West Virginia (Greenbrier Valley Medical Center) - Mucinous production urothelial adenocarcinoma
Australia (Royal Hobart Hospital) - Mucinous adenocarcinoma, probably urachal
Australia (Royal Prince Alfred Hospital) - Adenocarcinoma (mucinous variant)
Australia (Sullivan Nicolaides Pathology) - Mucinous adenocarcinoma of bladder
Brazil (Laboratorio Anatomia Patologica Ecitologia) - Mucinous adenocarcinoma of the bladder
Brazil, Sao Paulo - Mucinous adenocarcinoma (moderately differentiated) likely to be urachal adenocarcinoma
Canada (Pasqua Hospital) - Colloid carcinoma
Canada, Saskatoon - Vesical adenocarcinoma
Canada (Sherbrooke University Hospital) - Invasive mucinous adenocarcinoma
India, Karnataka - Mucinous carcinoma
Ireland (Kerry General Hospital) - Mucinous adenocarcinoma
Jamaica (The University of West Indies) - Urothelial adenocarcinoma
Japan (Kyoto University Hospital) - Mucinous adenocarcinoma
Oman (Khoula Hospital) - Adenocarcinoma (mucinous type) urachal carcinoma
Qatar (Hamad Medical Corporation) - Mucinous/colloid adenocarcinoma
Saudi Arabia (King Fahad National Guard Hospital) - Mucinous adenocarcinoma, primary
Saudi Arabia (Maternity and Children's Hospital) - Adenocarcinoma
The Netherlands, Amstelveen - Mucinous adenocarcinoma (depending upon localization, urachal or nonurachal type
United Kingdom (Oxford Study Group) - Bladder mucinous adenocarcinoma

Case 3 - Diagnosis:

Mucinous adenocarcinoma, bladder
T-71000, M-81403

Case 3 - References:

Lauretti S, Mosca A, D'Alfonso V, et al. Primitive Mucinous Adenocarcinoma of the Bladder. A Case Report. *Arch Ital Urol Androl* 2006; 78(1):32-34.

Zaghloul MS, Nouh A, Nazmy M, et al. Long-Term Results of Primary Adenocarcinoma of the Urinary Bladder. A Report on 192 Patients. *Urol Oncol* 2006; 24(1):13-20.

Taylor S, Bacchini P and Bertoni F. An Isolated Vertebral Metastasis of Urachal Adenocarcinoma. *Arch Pathol Lab Med* 2004; 128(9):1043-1045.

Mazzucchelli R, Scarpelli M and Montironi R. Mucinous Adenocarcinoma with Superficial Stromal Invasion and Villous Adenoma of Urachal Remnants. A Case Report. *J Clin Pathol* 2003; 56(6):465-467.

Case No. 4, Accession No. 30147 February 2007

Alameda (Alameda County Medical Center) - Angiomyolipoma

Fontana (Kaiser Permanente) - Angiomyolipoma
Granada Hills - Angiomyolipoma
Long Beach - Angiomyolipoma
Long Beach (Long Beach Veterans Hospital) - Angiomyolipoma
Los Angeles - Angiomyolipoma
Monterey (Community Hospital of Monterey Peninsula) - Angiomyolipoma
Oakland - Angiomyolipoma
Orange (Orange County Pathology Medical Group) - Angiomyolipoma
Oxnard (St. John's Regional Medical Center) - Angiomyolipoma (4)
San Diego - Angiomyolipoma, kidney
San Diego (Naval Medical Center San Diego) - Angiomyolipoma
San Diego (Scripps Health) - Angiomyolipoma
San Diego (UCSD) - Angiomyolipoma
San Francisco (San Francisco General Hospital) - Angiomyolipoma
Santa Barbara - Angiomyolipoma
Santa Rosa (Santa Rosa Memorial Hospital) - Angiomyolipoma (3)
Woodland Hills (Kaiser Permanente) - Angiomyolipoma
Woodland Hills (Suda's Soldiers) - Angiomyolipoma
Arkansas (University of Arkansas for Medical Sciences) - Angiomyolipoma, kidney
Georgia, Decatur - Angiomyolipoma
Illinois, Burr Ridge - Angiomyolipoma (2)
Illinois (Loyola University Medical Center) - Moderately-differentiated neuroendocrine tumor
Indiana (Howard Regional Medical Center) - Spindle cell sarcoma (?leio)
Maryland (Northwest Hospital Center) - Angiomyolipoma
Maryland (University of Maryland) - Angiomyolipoma
Massachusetts (Berkshire Medical Center) - Angiomyolipoma
Massachusetts (Beverly Hospital) - Angiomyolipoma
Michigan (Oakwood Hospital) - Angiomyolipoma
Minnesota (Fairview Ridges Hospital) - Angiomyolipoma
Nebraska (Creighton University School of Medicine) - Angiomyolipoma
New Mexico (University of New Mexico) - Angiomyolipoma
New York (Long Island Jewish Medical Center) - Angiomyolipoma
New York (Nassau University Medical Center) - Cellular leiomyoma
New York (Stony Brook University Hospital) - Angiomyolipoma
New York (SUNY Downstate Medical Center) - Angiomyolipoma
North Carolina (Mountain Area Pathology) - Angioyolipoma (2)
Ohio (McCullough-Hyde Memorial Hospital) - Leiomyoma vs. leiomyosarcoma
Oklahoma, Tulsa - Angiomyolipoma
Pennsylvania (Drexel University College of Medicine) - Angiomyolipoma
Pennsylvania (Lehigh Valley Hospital) - Angiomyolipoma
Pennsylvania (Magee Women's Hospital) - Angiomyolipoma
Pennsylvania (Mt. Nittany Medical Center) - Angiomyolipoma
Pennsylvania (Pennsylvania Hospital Residents) - Angiomyolipoma
Puerto Rico (University of Puerto Rico) - Angiomyolipoma
South Dakota (University of South Dakota Residents) - Angiomyolipoma
Tennessee, Kingsport - Angiomyolipoma
Texas (Scott & White Memorial Hospital) - Angiomyolipoma
Texas, Houston - Angiomyolipoma
Texas, Lubbock - Leiomyosarcoma
Washington (Madigan Army Medical Center) - Angiomyolipoma (12)
West Virginia (Greenbrier Valley Medical Center) - Angiomyolipoma
Australia (Royal Hobart Hospital) - Angiomyolipoma, kidney
Australia (Royal Prince Alfred Hospital) - Angiomyolipoma
Australia (Sullivan Nicolaides Pathology) - Angiomyolipoma
Brazil (Laboratorio Anatomia Patologica Ecitologia) - Angiomyolipoma , smooth muscle predominant
Brazil, Sao Paulo - Angiomyolipoma
Canada (Pasqua Hospital) - Angiomyolipoma
Canada, Saskatoon - Angiomyolipoma
Canada (Sherbrooke University Hospital) - Angiomyolipoma
India, Karnataka - Angiomyolipoma
Ireland (Kerry General Hospital) - Angiomyolipoma
Jamaica (The University of West Indies) - Renal angiomyolipoma
Japan (Kyoto University Hospital) - Angiomyolipoma

Oman (Khoula Hospital) - Angiomyolipoma
Qatar (Hamad Medical Corporation) - Angiomyolipoma
Saudi Arabia (King Fahad National Guard Hospital) - Angiomyolipoma
Saudi Arabia (Maternity and Children's Hospital) - Angiomyolipoma
The Netherlands, Amstelveen - Angiomyolipoma of the kidney, nonurachal type
United Kingdom (Oxford Study Group) - Angiomyolipoma

Case 4 - Diagnosis:

Angiomyolipoma, kidney
T-71000, M-88600

Case 4 - References:

Bahrami A, Schwartz MR, Ayala AG, et al. Concurrent Angiomyolipoma and Two Oncocytomas in the Same Kidney. *Ann Diagn Pathol* 2007; 11(2):132-136.
Roma AA, Magi-Galluzzi C and Zhou M. Differential Expression of Melanocytic Markers in Myoid, Lipomatous, and Vascular Components of Renal Angiomyolipomas. *Arch Pathol Lab Med* 2007; 131(1):122-125.
Khan MS, Iram S, O'Brien TS, et al. Renal Perivascular Epitheloid Cell-Omas'. *BJU Int* 2006; 98(6):1146-1147.
Gould Rothberg BE, Grooms MC and Dharnidharka VR. Rapid Growth of a Kidney Angiomyolipoma After Initiation of Oral Contraceptive Therapy. *Obstet Gynecol* 2006; 108(3 Pt 2):734-736.

Case No. 5, Accession No. 30115 February 2007

Alameda (Alameda County Medical Center) - Leiomyosarcoma
Fontana (Kaiser Permanente) - Leiomyosarcoma
Granada Hills - Leiomyoma
Long Beach - Degenerating leiomyoma
Long Beach (Long Beach Veterans Hospital) - Leiomyoma with degenerative changes
Los Angeles - Leiomyosarcoma
Monterey (Community Hospital of Monterey Peninsula) - Leiomyoma (2); Leiomyosarcoma (1)
Oakland - Leiomyoma sarcoma
Orange (Orange County Pathology Medical Group) - Leiomyosarcoma
Oxnard (St. John's Regional Medical Center) - Angiomyolipoma (4)
San Diego - Leiomyosarcoma, kidney rule out angiomyolipoma
San Diego (Naval Medical Center San Diego) - Leiomyosarcoma
San Diego (Scripps Health) - Leiomyosarcoma
San Diego (UCSD) - Smooth muscle tumor of uncertain malignant potential (STUMP)
San Francisco (San Francisco General Hospital) - Partially infracted cellular leiomyoma
Santa Barbara - Leiomyoma
Santa Rosa (Santa Rosa Memorial Hospital) - Leioyosarcoma (3)
Woodland Hills (Kaiser Permanente) - Leiomyosarcoma
Woodland Hills (Suda's Soldiers) - Leiomyosarcoma
Arkansas (University of Arkansas for Medical Sciences) - Leiomyoma, kidney
Georgia, Decatur - Leiomyosarcoma
Illinois, Burr Ridge - Leiomyoma (1); Leiomyosarcoma (1)
Illinois (Loyola University Medical Center) - Well-differentiated neuroendocrine tumor
Indiana (Howard Regional Medical Center) - Leiomyosarcoma
Maryland (Northwest Hospital Center) - Leiomyosarcoma
Maryland (University of Maryland) - Leiomyosarcoma
Massachusetts (Berkshire Medical Center) - Leiomyosarcoma
Massachusetts (Beverly Hospital) - Leiomyosarcoma
Michigan (Oakwood Hospital) - Leiomyosarcoma
Minnesota (Fairview Ridges Hospital) - Leiomyosarcoma
Nebraska (Creighton University School of Medicine) - Leiomyosarcoma
New Mexico (University of New Mexico) - Leiomyosarcoma
New York (Long Island Jewish Medical Center) - Leiomyosarcoma
New York (Nassau University Medical Center) - Leiomyosarcoma
New York (Stony Brook University Hospital) - Inflammatory (pseudotumor) myofibroblastic tumors
New York (SUNY Downstate Medical Center) - Leiomyoma
North Carolina (Mountain Area Pathology) - Angiomyolipoma (1); Leiomyoma (1)
Ohio (McCullough-Hyde Memorial Hospital) - Angiomyolipoma
Oklahoma, Tulsa - Leiomyoma

Pennsylvania (Drexel University College of Medicine) - Leiomyoma with infarction
Pennsylvania (Lehigh Valley Hospital) - Smooth muscle neoplasm favor low grade leiomyosarcoma
Pennsylvania (Magee Women's Hospital) - Mesoblastic nephroma
Pennsylvania (Mt. Nittany Medical Center) - Leiomyosarcoma
Pennsylvania (Pennsylvania Hospital Residents) - Leiomyosarcoma
Puerto Rico (University of Puerto Rico) - Leiomyosarcoma
South Dakota (University of South Dakota Residents) - Leiomyosarcoma
Tennessee, Kingsport - Leiomyosarcoma
Texas (Scott & White Memorial Hospital) - Leiomyoma
Texas, Houston - Leiomyosarcoma
Texas, Lubbock - Leiomyosarcoma
Washington (Madigan Army Medical Center) - Leiomyoma (5); Smooth muscle tumor, unknown malignant (4); Leiomyosarcoma (3)
West Virginia (Greenbrier Valley Medical Center) - Sarcomatoid renal cell carcinoma
Australia (Royal Hobart Hospital) - Leiomyosarcoma, kidney
Australia (Royal Prince Alfred Hospital) - Smooth muscle tumour of uncertain malignant potential (angiomyolipoma)
Australia (Sullivan Nicolaides Pathology) - Leiomyoma
Brazil (Laboratorio Anatomia Patologica Ecitologia) - Leiomyosarcoma, renal
Brazil, Sao Paulo - Smooth muscle tumor, leiomyosarcoma vs. angiomyolipoma vs leiomyoma
Canada (Pasqua Hospital) - Leiomyosarcoma
Canada, Saskatoon - Leiomyosarcoma
Canada (Sherbrooke University Hospital) - Angiomyolipoma with predominant leiomyomatous component
India, Karnataka - Inflammatory myofibroblastic tumor/leiomyosarcoma
Ireland (Kerry General Hospital) - Leiomyosarcoma
Jamaica (The University of West Indies) - Chronic pyelonephritis, malakoplakis, (differential diagnosis, leiomyosarcoma)
Japan (Kyoto University Hospital) - Leiomyosarcoma
Oman (Khoula Hospital) - Leiomyosarcoma
Qatar (Hamad Medical Corporation) - Leiomyoma
Saudi Arabia (King Fahad National Guard Hospital) - Leiomyoma with infarction
Saudi Arabia (Maternity and Children's Hospital) - Inflammatory myofibroblastic tumor
The Netherlands, Amstelveen - Leiomyosarcoma
United Kingdom (Oxford Study Group) - Leiomyoma

Case 5 - Diagnosis:

Leiomyosarcoma, kidney
T-71000, M-88903

Case 5 - References:

Kendal WS. The Comparative Survival of Renal Leiomyosarcoma. *Can J Urol* 2007; 14(1):3435-3442.
Sharma D, Pradhan S, Aryya NC, et al. Leiomyosarcoma of Kidney. A Case Report with Long Term Result After Radiotherapy and Chemotherapy. *Int Urol Nephrol* 2007.
Kartsanis G, Douros K, Zolota V, et al. Case Report. Leiomyosarcoma of the Renal Pelvis. *Int Urol Nephrol* 2006; 38(2):211-213.
Komiyama M. A Case of Leiomyosarcoma Involving the Renal Hilus. *Jpn J Clin Oncol* 2006; 36(2):122.

Case No. 6, Accession No. 30289 February 2007

Alameda (Alameda County Medical Center) - Multilocular cyst (cystic nephroma)
Fontana (Kaiser Permanente) - Mixed epithelial, stromal tumor of kidney
Granada Hills - Cystic nephroma
Long Beach - Benign polycystic disease
Long Beach (Long Beach Veterans Hospital) - Polycystic disease, benign
Monterey (Community Hospital of Monterey Peninsula) - Cystic nephroma
Oakland - Multicystic nephroma
Orange (Orange County Pathology Medical Group) - Cystic nephroma
Oxnard (St. John's Regional Medical Center) - Multicystic nephroma (4)
San Diego - Chronic pyelonephritis, spindle cell lesion leg, solitary fibrous tumor
San Diego (Naval Medical Center San Diego) - Cystic nephroma
San Diego (Scripps Health) - Benign multilocular cyst
San Diego (UCSD) - Cystic nephroma
San Francisco (San Francisco General Hospital) - Adult polycystic disease
Santa Barbara - Cystic nephroma

Santa Rosa (Santa Rosa Memorial Hospital) - Cystic nephroma (2); Multilocular renal cyst (cystic nephroma, "mlticystic nephroma") (1)
Woodland Hills (Kaiser Permanente) - Cystic nephroma
Woodland Hills (Suda's Soldiers) - Cystic nephroma
Arkansas (University of Arkansas for Medical Sciences) - Cystic nephroma, kidney
Georgia, Decatur - Mixed epithelial and stromal tumor
Illinois, Burr Ridge - Cystic nephroma (2)
Illinois (Loyola University Medical Center) - Small cell carcinoma
Indiana (Howard Regional Medical Center) - Multicystic nephroma
Maryland (Northwest Hospital Center) - Renal cystic disease vs. cystic nephroma
Maryland (University of Maryland) - Cystic nephroma
Massachusetts (Berkshire Medical Center) - Cystic nephroma (multilocular cyst)
Massachusetts (Beverly Hospital) - Cystic kidney disease
Michigan (Oakwood Hospital) - Mixed epithelial and stromal tumor
Minnesota (Fairview Ridges Hospital) - Mixed epithelial stromal tumor of kidney
Nebraska (Creighton University School of Medicine) - Multilocular cyst (cystic nephroma)
New Mexico (University of New Mexico) - Cystic nephroma
New York (Long Island Jewish Medical Center) - Cystic nephroma
New York (Nassau University Medical Center) - Cystic nephroma
New York (Stony Brook University Hospital) - Dysplastic kidney
New York (SUNY Downstate Medical Center) - Multicystic nephroma vs. benign cystic disease
North Carolina (Mountain Area Pathology) - Multicystic nephroma (2)
Ohio (McCullough-Hyde Memorial Hospital) - Cystic nephroma
Oklahoma, Tulsa - Polycystic kidney disease
Pennsylvania (Drexel University College of Medicine) - Cystic nephroma
Pennsylvania (Lehigh Valley Hospital) - Mixed epithelial stromal tumor of kidney
Pennsylvania (Magee Women's Hospital) - Multicystic nephroma
Pennsylvania (Mt. Nittany Medical Center) - Medullary sponge kidney
Pennsylvania (Pennsylvania Hospital Residents) - Solitary multilocular cyst
Puerto Rico (University of Puerto Rico) - Cystic nephroma
South Dakota (University of South Dakota Residents) - Cystic nephroma
Tennessee, Kingsport - Multicystic nephroma (multilocular cyst)
Texas (Scott & White Memorial Hospital) - Renal multilocular cyst
Texas, Houston - Polycystic kidney disease
Texas, Lubbock - Cystic renal cell carcinoma
Washington (Madigan Army Medical Center) - Multilocular cyst (12)
West Virginia (Greenbrier Valley Medical Center) - Adult type renal polycystic disease
Australia (Royal Hobart Hospital) - Cystic nephroma
Australia (Royal Prince Alfred Hospital) - Cystic nephroma
Australia (Sullivan Nicolaides Pathology) - Multicystic nephroma
Brazil (Laboratorio Anatomia Patologica Ecitologia) - Mixed epithelial and stromal cell tumor of kidney
Brazil, Sao Paulo - Cystic nephroma
Canada (Pasqua Hospital) - Multilocular cyst
Canada, Saskatoon - Mixed epithelial and stromal tumor
Canada (Sherbrooke University Hospital) - Endometriose
India, Karnataka - Cystic nephroma
Ireland (Kerry General Hospital) - Cystic nephroma
Jamaica (The University of West Indies) - Inherited renal cystic disease VHL, type 2
Japan (Kyoto University Hospital) - Cystic nephroma
Oman (Khoula Hospital) - Cystic nephroma
Qatar (Hamad Medical Corporation) - Cystic nephroma (4); Mixed epithelial and stromal tumor (4)
Saudi Arabia (King Fahad National Guard Hospital) - Cystic nephroma
Saudi Arabia (Maternity and Children's Hospital) - Cystic nephroma
The Netherlands, Amstelveen - Multilocular cystic renal cell carcinoma
United Kingdom (Oxford Study Group) - Multicystic nephroma

Case 6 - Diagnosis:

Mixed epithelial and stromal tumor, kidney
T-71000, M-81003

Consultation: Stanford University, Richard Kempson, M.D., "Mixed Epithelial and Stromal Tumor of Kidney".

Case 6 - References:

Bisceglia M, Galliani CA, Senger C, et al. Renal Cystic Diseases. A Review. *Adv in Anat Pathol* 2006; 13(1):26-56.
Antic T, Perry KT, Harrison K, et al. Mixed Epithelial and Stromal Tumor of the Kidney and Cystic Nephroma Share Overlapping Features. Reappraisal of 15 Lesions. *Arch of Pathol & Lab Med* 2006; 130(1):80-85.
Michal M, es O, Bisceglia M, et al. Mixed Epithelial and Stromal Tumors of the Kidney. A Report of 22 Cases. *Virchows Archiv* 2004; 445(4):359-367.
Pierson CR, Schober MS, Wallis T, et al. Mixed Epithelial and Stromal Tumor of the Kidney Lacks the Genetic Alterations of Cellular Congenital Mesoblastic Nephroma. *Hum Pathol* 2001; 32(5):513-520.
Adsay NV, Eble JN, Srigley JR, et al. Unique Identified. Mixed Epithelial and Stromal Tumor of the Kidney. *Am J of Surg Pathol* 2000; 24(7):958-970.
Michal M and Syrucek M. Benign Mixed Epithelial and Stromal Tumor of the Kidney. *Pathol, Res & Prac* 1998; 194(6):445-448.

Case No. 7, Accession No. 30364 February 2007

Alameda (Alameda County Medical Center) - Solitary fibrous tumor
Fontana (Kaiser Permanente) - Solitary fibrous tumor
Granada Hills - Sclerosing heamgiofibroma
Long Beach - Solitary fibrous tumor
Long Beach (Long Beach Veterans Hospital) - Solitary fibrous tumor
Los Angeles - Sclerosing fibrous tumor, NOS
Monterey (Community Hospital of Monterey Peninsula) - Solitary fibrous tumor
Oakland - Solitary fibrous tumor
Orange (Orange County Pathology Medical Group) - Solitary fibrous tumor
Oxnard (St. John's Regional Medical Center) - Angiomyolipoma (4)
San Diego - Solitary fibrous tumor, kidney
San Diego (Naval Medical Center San Diego) - Solitary fibrous tumor
San Diego (Scripps Health) - Solitary fibrous tumor
San Diego (UCSD) - Solitary fibrous tumor
San Francisco (San Francisco General Hospital) - Endstage kidney with reactive fibrosis
Santa Barbara - Solitary fibrous tumor
Santa Rosa (Santa Rosa Memorial Hospital) - Solitary fibrous tumor (3)
Woodland Hills (Kaiser Permanente) - Solitary fibrous tumor
Woodland Hills (Suda's Soldiers) - Solitary fibrous tumor (amyloid in kidney)
Arkansas (University of Arkansas for Medical Sciences) - Solitary fibrous tumor
Georgia, Decatur - Solitary fibrous tumor
Illinois, Burr Ridge - Solitary fibrous tumor (2)
Illinois (Loyola University Medical Center) - Well-differentiated neuroendocrine tumor
Indiana (Howard Regional Medical Center) - Old infarct with pseudosarcomatous reaction
Maryland (Northwest Hospital Center) - Renomedullary interstitial cell tumor
Maryland (University of Maryland) - Solitary fibrous tumor
Massachusetts (Berkshire Medical Center) - Solitary fibrous tumor
Massachusetts (Beverly Hospital) - Solitary fibrous tumor
Michigan (Oakwood Hospital) - Solitary fibrous tumor
Minnesota (Fairview Ridges Hospital) - Solitary fibrous tumor
Nebraska (Creighton University School of Medicine) - Solitary fibrous tumor
New Mexico (University of New Mexico) - Solitary fibrous tumor
New York (Long Island Jewish Medical Center) - Solitary fibrous tumor
New York (Nassau University Medical Center) - Solitary fibrous tumor
New York (Stony Brook University Hospital) - Solitary fibrous tumor
New York (SUNY Downstate Medical Center) - Solitary fibrous tumor vs. desmoplastic nests spindle cell tumor
North Carolina (Mountain Area Pathology) - Solitary fibrous tumor (2)
Ohio (McCullough-Hyde Memorial Hospital) - Solitary fibrous tumor
Oklahoma, Tulsa - Renomedullary interstitial cell tumor
Pennsylvania (Drexel University College of Medicine) - Solitary fibrous tumor
Pennsylvania (Lehigh Valley Hospital) - Solitary fibrous tumor
Pennsylvania (Magee Women's Hospital) - Solitary fibrous tumor
Pennsylvania (Mt. Nittany Medical Center) - Solitary fibrous tumor
Pennsylvania (Pennsylvania Hospital Residents) - Solitary fibrous tumor
Puerto Rico (University of Puerto Rico) - Solitary fibrous tumor
South Dakota (University of South Dakota Residents) - Solitary fibrous tumor
Tennessee, Kingsport - Solitary fibrous tumor
Texas (Scott & White Memorial Hospital) - Solitary fibrous tumor
Texas, Houston - Inflammatory myofibroblastic pseudotumor

Texas, Lubbock - Solitary fibrous tumor
Washington (Madigan Army Medical Center) - Solitary fibrous tumor (12)
West Virginia (Greenbrier Valley Medical Center) - Solitary fibrous tumor
Australia (Royal Hobart Hospital) - Solitary fibrous tumor
Australia (Royal Prince Alfred Hospital) - Solitary fibrous tumor
Australia (Sullivan Nicolaides Pathology) - Solitary fibrous tumor
Brazil (Laboratorio Anatomia Patologica Ecitologia) - Solitary fibrous tumor of the kidney
Brazil, Sao Paulo - Solitary fibrous tumor
Canada (Pasqua Hospital) - Solitary fibrous tumor
Canada, Saskatoon - Medullary fibroma (renomedullary interstitial cell tumor)
Canada (Sherbrooke University Hospital) - Solitary fibrous tumor
India, Karnataka - Solitary fibrous tumor
Ireland (Kerry General Hospital) - Solitary fibrous tumour
Jamaica (The University of West Indies) - Chronic pyelonephritis
Japan (Kyoto University Hospital) - Solitary fibrous tumor
Oman (Khoula Hospital) - Solitary fibrous tumour
Qatar (Hamad Medical Corporation) - Solitary fibrous tumor
Saudi Arabia (King Fahad National Guard Hospital) - Inflammatory pseudotumor
Saudi Arabia (Maternity and Children's Hospital) - Kaposi sarcoma
The Netherlands, Amstelveen - Solitary fibrous tumor
United Kingdom (Oxford Study Group) - Solitary fibrous tumor

Case 7 – Diagnosis:

Solitary fibrous tumor, kidney
T-71000, M-90510

Case 7 – References:

Gengler C and Guillou L. Solitary Fibrous Tumour and Haemangiopericytoma. Evolution of a Concept. *Histopathol* 2006; 48(1):63-74.
Fine SW, McCarthy DM, Chan TY, et al. Malignant Solitary Fibrous Tumor of the Kidney. A Report of a Case and Comprehensive Review of the Literature. *Arch Pathol Lab Ed* 2006; 130(6):857-861.
Kohl SK, Mathews K and Baker J. Renal Hilar Mass in an 85-Year-Old Woman. Solitary Fibrous Tumor. *Arch Pathol Lab Med* 2006; 130(1):117-119.
Yamaguchi T, Takimoto T, Yamashita T, et al. Fat-Containing Variant of Solitary Fibrous Tumor (Lipomatous Hemangiopericytoma) Arising on Surface of Kidney. *Urol* 2005; 65(1):175.
Wang J, Arber DA, Frankel K, et al. Large Solitary Fibrous Tumor of the Kidney. Report of Two Cases and Review of the Literature. *Am J Surg Pathol* 2001; 25(9):1194-1199.

Case No. 8, Accession No. 30290 February 2007

Alameda (Alameda County Medical Center) - Primitive neuroectodermal tumor
Fontana (Kaiser Permanente) - Ewing sarcoma/PNET
Granada Hills - Sarcomatoid renal cell carcinoma
Long Beach - Adults Wilms' tumor
Long Beach (Long Beach Veterans Hospital) - Adult Wilms' tumor (2); Mesoblastic nephroma (1)
Los Angeles - Primitive neuroectodermal tumor
Monterey (Community Hospital of Monterey Peninsula) - Synovial sarcoma
Oakland - Primitive neuroectodermal tumor vs. rhabdomyosarcoma
Orange (Orange County Pathology Medical Group) - Synovial sarcoma
Oxnard (St. John's Regional Medical Center) - Leiomyosarcoma (4)
San Diego - Small blue cell tumor (metanephric stromal tumor vs. mesoplastic nephroma
San Diego (Naval Medical Center San Diego) - Small round blue cell tumor; Ewings sarcoma (3); Wilms' tumor (1)
San Diego (Scripps Health) - Monophasic synovial sarcoma
San Diego (UCSD) - Primitive neuroectodermal tumor (PNET)
San Francisco (San Francisco General Hospital) - Adult Wilms' tumor
Santa Barbara - Leiomyosarcoma
Santa Rosa (Santa Rosa Memorial Hospital) - Ewing's sarcoma (PNET) (1); Primitive neuroectodermal tumor (2)
Woodland Hills (Kaiser Permanente) - Primitive neuroectodermal tumor/Ewing's sarcoma
Woodland Hills (Suda's Soldiers) - Primitive neuroectodermal tumor
Arkansas (University of Arkansas for Medical Sciences) - Synovial sarcoma, kidney
Georgia, Decatur - Suggestive of metastatic endometrial stromal sarcoma

Illinois, Burr Ridge - Primitive neuroectodermal tumor (1); Synovial sarcoma (1)
Illinois (Loyola University Medical Center) - Pheochromocytoma
Indiana (Howard Regional Medical Center) - Solitary fibrous tumor
Maryland (Northwest Hospital Center) - Primitive neuroectodermal tumor
Maryland (University of Maryland) - Solitary fibrous tumor, malignant
Massachusetts (Berkshire Medical Center) - Wilms' tumor, blastema predominant (vs. endometrial stromal sarcoma vs. metanephric stromal tumor vs. monophasic synovial sarcoma)
Massachusetts (Beverly Hospital) - Primitive neuroectodermal tumor
Michigan (Oakwood Hospital) - Sarcoma, favor monophasic synovial sarcoma
Minnesota (Fairview Ridges Hospital) - Synovial sarcoma
Nebraska (Creighton University School of Medicine) - Undifferentiated neoplasm (probably sarcoma)
New Mexico (University of New Mexico) - Synovial sarcoma
New York (Long Island Jewish Medical Center) - Monophasic synovial sarcoma
New York (Nassau University Medical Center) - Primitive neuroectodermal tumor
New York (Stony Brook University Hospital) - Synovial sarcoma
New York (SUNY Downstate Medical Center) - Monophasic synovial sarcoma vs. endometrial stromal sarcoma
North Carolina (Mountain Area Pathology) - Cellular mesoblastic nephroma (2)
Ohio (McCullough-Hyde Memorial Hospital) - Synovial sarcoma
Oklahoma, Tulsa - Primitive neuroectodermal tumor/Ewing's
Pennsylvania (Drexel University College of Medicine) - Synovial sarcoma
Pennsylvania (Lehigh Valley Hospital) - Monophasic synovial sarcoma
Pennsylvania (Magee Women's Hospital) - Blastema dominant Wilms' tumor
Pennsylvania (Mt. Nittany Medical Center) - Primitive neuroectodermal tumor
Pennsylvania (Pennsylvania Hospital Residents) - Spindle cell sarcoma
Puerto Rico (University of Puerto Rico) - Endometrial stromal sarcoma
South Dakota (University of South Dakota Residents) - PPNET
Tennessee, Kingsport - Metastatic endometrial stromal sarcoma
Texas (Scott & White Memorial Hospital) - Monophasic synovial sarcoma
Texas, Houston - Spindle cell neoplasm
Texas, Lubbock - Sarcomatoid renal cell carcinoma
Washington (Madigan Army Medical Center) - Synovial sarcoma (12)
West Virginia (Greenbrier Valley Medical Center) - Fibrosarcoma
Australia (Royal Hobart Hospital) - Monophasic synovial sarcoma
Australia (Royal Prince Alfred Hospital) - Monophasic synovial sarcoma
Australia (Sullivan Nicolaides Pathology) - Synovial sarcoma
Brazil (Laboratorio Anatomia Patologica Ecitologia) - Monophasic synovial sarcoma of the kidney
Brazil, Sao Paulo - Stromal endometrial sarcoma; DDx: Synovial sarcoma
Canada (Pasqua Hospital) - Synovial sarcoma
Canada, Saskatoon - Endometrial stromal sarcoma metastatic to the kidney
Canada (Sherbrooke University Hospital) - High grade sarcoma (synovial sarcoma)
India, Karnataka - Primitive synovial sarcoma, kidney
Ireland (Kerry General Hospital) - Primitive neuroectodermal tumour
Jamaica (The University of West Indies) - Cellular mesoblastic nephroma (adult) vs. solitary fibroid tumour, MEST
Japan (Kyoto University Hospital) - Synovial sarcoma
Oman (Khoula Hospital) - Synovial sarcoma
Qatar (Hamad Medical Corporation) - Synovial sarcoma (4); Leiomyosarcoma (4)
Saudi Arabia (King Fahad National Guard Hospital) - Monophasic synovial sarcoma
Saudi Arabia (Maternity and Children's Hospital) - Primitive neuroectodermal tumor
The Netherlands, Amstelveen - Stromal cell sarcoma
United Kingdom (Oxford Study Group) - Synovial sarcoma

Case 8 - Diagnosis:

High grade sarcoma (NOS), kidney
T-71000, M-88103

Directors Note: "Tumor has striking similarity to monophasic synovial sarcoma, but is keratin negative. Molecular studies were not done." (drc)

Consultation: Stanford University, Anne E. Drejet, M.D., "High Grade Sarcoma, NOS"

Case 8 – References:

Dotan ZA, Tal R, Golijanin D, Snyder ME, et al. Adult Genitourinary Sarcoma. The 25-Year Memorial Sloan-Kettering Experience. *J Urol* 2006; 176(5):2033-2038.
Dall'Oglio MF, Lieberknecht M, Gouveia V, et al. Sarcomatoid Differentiation in Renal Cell Carcinoma. Prognostic Implications. *Int Braz J Urol* 2005; 31(1):10-16.
Deyrup AT, Montgomery E and Fisher C. Leiomyosarcoma of the Kidney. A Clinicopathologic Study. *Am J Surg Pathol* 2004; 28(2):178-182.
Chen PC, Chang YH, Yen CC, et al. Primary Renal Synovial Sarcoma with Inferior Vena Cava and Right Atrium Invasion. *Int J Urol* 2003; 10(12):657-660.

Case No. 9, Accession No. 30185 February 2007

Alameda (Alameda County Medical Center) - Renal cell carcinoma
Fontana (Kaiser Permanente) - Renal cell carcinoma, chromophobe type
Granada Hills - Oncocytoma
Long Beach - Oncocytoma
Long Beach (Long Beach Veterans Hospital) - Oncocytic neoplasm, favor oncocytoma
Los Angeles - Oncocytoma
Monterey (Community Hospital of Monterey Peninsula) - Papillary renal cell carcinoma
Oakland - Oncocytoma
Orange (Orange County Pathology Medical Group) - Oncocytoma
Oxnard (St. John's Regional Medical Center) - Renal cell carcinoma (4)
San Diego - Oncocytoma vs. renal cell carcinoma
San Diego (Naval Medical Center San Diego) - Papillary renal cell carcinoma
San Diego (Scripps Health) - Renal cell carcinoma, papillary type
San Diego (UCSD) - Papillary renal cell carcinoma, type 2
San Francisco (San Francisco General Hospital) - Eosinophilic chromophobe renal carcinoma
Santa Barbara - Oncocytoma
Santa Rosa (Santa Rosa Memorial Hospital) - Oncocytoma (3)
Woodland Hills (Kaiser Permanente) - Oncocytoma
Woodland Hills (Suda's Soldiers) - Oncocytoma
Arkansas (University of Arkansas for Medical Sciences) - Oncocytoma, kidney
Georgia, Decatur - Tubulocystic carcinoid
Illinois, Burr Ridge - Papillary carcinoma (2)
Illinois (Loyola University Medical Center) - Paraganglioma
Indiana (Howard Regional Medical Center) - Papillary renal carcinoma
Maryland (Northwest Hospital Center) - Papillary renal cell carcinoma
Maryland (University of Maryland) - Papillary renal cell carcinoma, oncocystic variant
Massachusetts (Beverly Hospital) - Renal oncocytoma
Michigan (Oakwood Hospital) - Renal cell carcinoma, clear cell type
Minnesota (Fairview Ridges Hospital) - Renal cell carcinoma, papillary
Nebraska (Creighton University School of Medicine) - Renal cell carcinoma, oncocytic type
New Mexico (University of New Mexico) - Renal cell carcinoma, clear cell or classical type
New York (Long Island Jewish Medical Center) - Chromophobe renal cell carcinoma, eosinophilic variant
New York (Nassau University Medical Center) - Renal cell carcinoma
New York (Stony Brook University Hospital) - Oncocytoma
New York (SUNY Downstate Medical Center) - Papillary renal carcinoma, type II vs. renal oncocytoma
North Carolina (Mountain Area Pathology) - Oncocytoma (2)
Ohio (McCullough-Hyde Memorial Hospital) - Oncocytoma
Oklahoma, Tulsa - Renal cell carcinoma, granular cell type
Pennsylvania (Drexel University College of Medicine) - Renal cell papillary carcinoma, oncocytic type
Pennsylvania (Lehigh Valley Hospital) - Oncocytoma
Pennsylvania (Magee Women's Hospital) - Oncocytoma
Pennsylvania (Mt. Nittany Medical Center) - Oncocytoma with hemorrhage
Pennsylvania (Pennsylvania Hospital Residents) - Papillary renal cell carcinoma
Puerto Rico (University of Puerto Rico) - Papillary renal cell carcinoma
South Dakota (University of South Dakota Residents) - Oncocytoma
Tennessee, Kingsport - Oncocytoma
Texas (Scott & White Memorial Hospital) - Oncocytoma
Texas, Houston - Renal cell carcinoma
Texas, Lubbock - Renal cell carcinoma, oncocytic type
Washington (Madigan Army Medical Center) - Papillary renal cell (10); Oncocytoma (2)
West Virginia (Greenbrier Valley Medical Center) - Chromophobe renal cell carcinoma

Australia (Royal Hobart Hospital) - Papillary renal cell carcinoma, type 2
Australia (Royal Prince Alfred Hospital) - Papillary renal cell carcinoma
Australia (Sullivan Nicolaides Pathology) - Renal oncocytoma
Brazil (Laboratorio Anatomia Patologica Ecitologia) - Papillary renal cell carcinoma, type 2
Brazil, Sao Paulo - Renal cell carcinoma, type 2 /papillary variant
Canada (Pasqua Hospital) - Papillary renal cell carcinoma
Canada, Saskatoon - Hemangioma
Canada (Sherbrooke University Hospital) - Oncocytoma
India, Karnataka - Papillary renal cell carcinoma
Ireland (Kerry General Hospital) - Papillary renal cell carcinoma, type 2
Jamaica (The University of West Indies) - Papillary renal cell carcinoma
Japan (Kyoto University Hospital) - Oncocytoma
Oman (Khoula Hospital) - Oncocytoma
Qatar (Hamad Medical Corporation) - Renal cell carcinoma
Saudi Arabia (King Fahad National Guard Hospital) - Papillary renal cell carcinoma
Saudi Arabia (Maternity and Children's Hospital) - Oncocytoma
The Netherlands, Amstelveen - Oncocytoma
United Kingdom (Oxford Study Group) - Oncocytoma

Case 9 – Diagnosis:

Renal cell carcinoma with papillary and tubulocystic features, kidney
T-71000, M-83123

Case 9 – References:

Mizutani Y, Nakanishi H, Li YN, et al. Overexpression of XIAP Expression in Renal Cell Carcinoma Predicts a Worse Prognosis. *Int J Oncol* 2007; 30(4):919-925.
Antonelli A, Cozzoli A, Zani D, et al. The Follow-Up Management of Non-Metastatic Renal Cell Carcinoma. Definition of a Surveillance Protocol. *BJU Int* 2007; 99(2):296-300.
MacLennan GT and Bostwick DG. Tubulocystic Carcinoma, Mucinous Tubular and Spindle Cell Carcinoma and Other Recently Described Rare Renal Tumors. *Clin in Lab Med* 2005; 25(2):393-416.

Case No. 10, Accession No. 30233 February 2007

Alameda (Alameda County Medical Center) - Collecting duct carcinoma
Fontana (Kaiser Permanente) - Mucinous tubular and spindle cell carcinoma of kidney
Granada Hills - Collecting duct carcinoma
Long Beach - Invasive urothelial carcinoma, high grade
Long Beach (Long Beach Veterans Hospital) - Collecting duct carcinoma (2); High grade transitional (urothelial) carcinoma (1)
Los Angeles - Carcinosarcoma
Monterey (Community Hospital of Monterey Peninsula) - Urothelial cell carcinoma (2); Carcinoma of collecting duct of Bellini (1)
Oakland - Alveolar rhabdomyosarcoma
Orange (Orange County Pathology Medical Group) - Invasive high grade urothelial carcinoma
Oxnard (St. John's Regional Medical Center) - Sarcomatoid carcinoma (1); Collecting duct carcinoma (3)
San Diego - Renal cell carcinoma, collecting duct type
San Diego (Naval Medical Center San Diego) - Transitional cell carcinoma of the renal pelvis
San Diego (Scripps Health) - Collecting duct carcinoma
San Diego (UCSD) - Collecting duct carcinoma
San Francisco (San Francisco General Hospital) - Collecting duct carcinoma
Santa Barbara - Collecting duct renal cell carcinoma
Santa Rosa (Santa Rosa Memorial Hospital) - Transitional cell carcinoma (2); Urothelial carcinoma, invading kidney (1)
Woodland Hills (Kaiser Permanente) - Sarcomatoid renal cell carcinoma
Woodland Hills (Suda's Soldiers) - Synovial sarcoma vs. collecting duct carcinoma
Arkansas (University of Arkansas for Medical Sciences) - Collecting duct carcinoma, kidney
Georgia, Decatur - Collecting duct carcinoma
Illinois, Burr Ridge - Collecting duct carcinoma (1); Mucinous tubular and spindle cell carcinoma (1)
Illinois (Loyola University Medical Center) - Merkel cell tumor
Maryland (Northwest Hospital Center) - Collecting duct tumor
Maryland (University of Maryland) - Collecting duct carcinoma
Massachusetts (Beverly Hospital) - Collecting duct renal cell carcinoma
Michigan (Oakwood Hospital) - Invasive urothelial carcinoma, high grade
Minnesota (Fairview Ridges Hospital - Collecting duct carcinoma

Nebraska (Creighton University School of Medicine) - Collecting duct carcinoma
New Mexico (University of New Mexico) - Carcinoma of the collecting ducts of Bellini
New York (Long Island Jewish Medical Center) - Carcinoma of the collecting duct of Bellini
New York (Nassau University Medical Center) - Urothelial carcinoma, high grade, invasive
New York (Stony Brook University Hospital) - Carcinoma of the collecting ducts of Bellini
New York (SUNY Downstate Medical Center) - Angiosarcoma vs. collecting duct carcinoma
North Carolina (Mountain Area Pathology) - Collecting duct carcinoma (2)
Ohio (McCullough-Hyde Memorial Hospital) - Collecting duct renal cell carcinoma
Oklahoma, Tulsa - Urothelial carcinoma, high grade
Pennsylvania (Drexel University College of Medicine) - Mucinous tubular spindle cell carcinoma
Pennsylvania (Lehigh Valley Hospital) - Collecting duct carcinoma
Pennsylvania (Magee Women's Hospital) - Sarcomatoid variant of transitional cell carcinoma
Pennsylvania (Mt. Nittany Medical Center) - Xanthogranulomatous pyelonephritis
Pennsylvania (Pennsylvania Hospital Residents) - Collecting duct carcinoma
Puerto Rico (University of Puerto Rico) - Collecting duct carcinoma
South Dakota (University of South Dakota Residents) - Collecting duct carcinoma
Tennessee, Kingsport - Collecting duct carcinoma
Texas (Scott & White Memorial Hospital) - Mucinous tubular and spindled cell carcinoma
Texas, Houston - Sarcomatoid renal cell carcinoma
Texas, Lubbock - High grade urothelial carcinoma
Washington (Madigan Army Medical Center) - Collecting duct carcinoma (12)
West Virginia (Greenbrier Valley Medical Center) - Collecting duct renal cell carcinoma
Australia (Royal Hobart Hospital) - High grade invasive urothelial carcinoma
Australia (Royal Prince Alfred Hospital) - Invasive urothelial carcinoma
Australia (Sullivan Nicolaides Pathology) - Collecting duct carcinoma
Brazil (Laboratorio Anatomia Patologica Ecitologia) - High grade urothelial carcinoma
Brazil, Sao Paulo - High grade urothelial carcinoma vs. carcinoma of the collecting ducts
Canada (Pasqua Hospital) - Urothelial carcinoma
Canada, Saskatoon - Collecting duct renal cell carcinoma
Canada (Sherbrooke University Hospital) - Collecting duct carcinoma
India, Karnataka - Urothelial carcinoma renal pelvis
Ireland (Kerry General Hospital) - Collecting duct carcinoma
Jamaica (The University of West Indies) - Collecting duct carcinoma
Japan (Kyoto University Hospital) - Collecting duct carcinoma
Oman (Khoula Hospital) - Infiltrating urothelial carcinoma, high grade
Qatar (Hamad Medical Corporation) - Collecting duct carcinoma
Saudi Arabia (King Fahad National Guard Hospital) - Collecting duct carcinoma
Saudi Arabia (Maternity and Children's Hospital) - Metanephric adenosarcoma
The Netherlands, Amstelveen - Collecting duct carcinoma
United Kingdom (Oxford Study Group) - Collecting duct carcinoma

Case 10 - Diagnosis:

Collecting duct carcinoma, kidney
T-71000, M-83123

Case 10 - References:

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Assad L, Resetkova E, Oliveira VL, et al. Cytologic Features of Renal Medullary Carcinoma. *Cancer* 2005; 105(1):28-34.
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