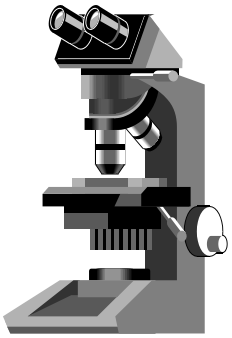
CALIFORNIA
TUMOR TISSUE REGISTRY

GENITOURINARY PATHOLOGY

Minutes – Subscription B

May 2012



SUGGESTED READING (General Topics from Recent Literature):

Addenda in Pathology Reports: Trends and Their Implications. Finkelstein A, Levy GH, et al. *Am J Clin Pathol* 2012; 137:606-611.

Diagnostic Reproducibility of Hydatidiform Moles: Ancillary Techniques (p57 Immunohistochemistry and Molecular Genotyping) Improving Morphologic Diagnosis. Vang R, Gupta M, et al. *Am J Surg Pathol* 2012; 36:443-453.

Immunohistochemical Pitfalls in Prostate Pathology. Brimo F and Epstein JL. *Hum Pathol* 2012; 43:313-324.

Risk of Hepatocellular Carcinoma in Diabetic Patients and Risk Reduction Associated With Anti-Diabetic Therapy. A Population-Based Cohort Study. Lai S-W, Chen P-C, et al. *Am J Gastroenterol* 2012; 107:46-52.

Thymomas I: A Clinicopathologic Correlation of 250 Cases With Emphasis on the World Health Organization Schema. *Am J Clin Pathol* 2012; 137:444-450.

California Tumor Tissue Registry
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FILE DIAGNOSES

CTTR Subscription B May 2012

Case 1:

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

Case 2:

Autosomal recessive (infantile) polycystic kidney disease, kidney
T-71000, M-26740

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Case 3:

Oncocytoma, kidney
T-71000, M-82900

Case 4:

Chromophobe renal cell carcinoma
T-71000, M-83123

Case 5:

Wilms tumor (nephroblastoma), favorable histology, kidney
T-71000, M-89603

Case 6:

Neuroendocrine carcinoma, kidney
T-71000, M-81203

Case 7:

Renal cell carcinoma, clear cell type, recurrent/metastatic to retroperitoneum and adrenal gland
T-Y4600, M-83123

Case 8:

Rhabdomyosarcoma, testis
T-78000, M-89003

Case 9:

Adenomatoid tumor, epididymis
T-79100, M-90540

Case 10:

Spindle cell neoplasm, favor smooth muscle tumor of uncertain potential (STUMP)
T-71000, M-80009

Costa Mesa (College of Costa Mesa Hospital) - Squamous cell carcinoma
Glendale - Squamous cell carcinoma
Loma Linda - Squamous carcinoma, penis
Orange (UCI Medical Center) - Poorly differentiated squamous cell carcinoma
San Diego (Naval Medical Center) - Poorly differentiated squamous cell carcinoma
Alabama (Cunningham Pathology) - Verruciform squamous cell carcinoma
Florida, Orlando - Squamous cell carcinoma, basaloid type
Georgia, Atlanta - Basaloid squamous cell carcinoma
Illinois (Evanston Hospital) - Squamous carcinoma, poorly differentiated
Illinois (Heartland Regional Medical Center) - Squamous cell carcinoma
Kansas (Coffeyville Regional Medical Center) - Poorly differentiated squamous cell carcinoma
Kansas (Peterson Laboratory Services) - Basaloid squamous cell carcinoma (2)
Maryland, Bethesda - Infiltrating, moderately differentiated squamous cell carcinoma, penis
New York (Buffalo General Hospital) - High grade urothelial carcinoma
Ohio, Columbus - Non-keratinizing invasive squamous cell carcinoma, poorly differentiated
Oregon (Oregon Health & Sciences University Residents) - Poorly differentiated carcinoma, consistent with lymphoepithelial-like carcinoma
Pennsylvania (Wilkes-Barre General Hospital) - Lymphoepithelial carcinoma
Puerto Rico (University of Puerto Rico) - Squamous cell carcinoma, moderately to poorly differentiated
Tennessee, Knoxville - Squamous cell carcinoma
Texas (Crystal Beach) - Warty squamous cell carcinoma
Texas (Scott & White Hospital) - High grade squamous cell carcinoma
Texas, Lubbock - Squamous cell carcinoma
Wisconsin, Madison - Poorly differentiated squamous cell carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Squamous cell carcinoma, basaloid type, high grade
Wisconsin (The Medical College of Wisconsin) - Poorly differentiated squamous cell carcinoma
Australia (Royal Prince Alfred Hospital) - Poorly differentiated squamous cell carcinoma, query HPV-related
Canada (Pasqua Hospital) - Squamous cell carcinoma
Japan (Asahi General Hospital) - Squamous cell carcinoma (2)
Japan (Setagaya-Ku) - Poorly differentiated carcinoma, lymphoepithelioma
Saudi Arabia (King Khalid University Hospital) - Invasive squamous cell carcinoma, poorly differentiated
The Netherlands, Amstelveen - Squamous cell carcinoma

Case 1 - Diagnosis:

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

Case 1 - References:

Cytopathological features of warty (condylomatous) carcinoma of the penis: a case report and distinction from other verruciform penile tumors. *Diagn Cytopathol* 2010; Nov;38(11): p841-5. Hayashi T; Haba R, et al.

Papillary squamous cell carcinoma, not otherwise specified (NOS) of the penis: clinicopathologic features, differential diagnosis, and outcome of 35 cases. *Am J Surg Pathol* 2010; Feb;34(2): p223-30. Chaux A; Soares F, et al.

Squamous cell carcinoma at the site of a Prince Albert's piercing. *J Sex Med* 2010; Jun;7(6): p2280-3. Comment In: *RefSource:J Sex Med*. 2011; Jan; 8(1):331-2/PMID:20946174. Edlin RS; Aaronson DS, et al.

Developments in the pathology of penile squamous cell carcinomas. *Urology* 2010; Aug;76(2 Suppl 1): pS7-S14. Chaux A; Velazquez EF, et al.

Warty-basaloid carcinoma: clinicopathological features of a distinctive penile neoplasm. Report of 45 cases. *Mod Pathol* 2010; Jun;23(6): p896-904. Chaux A; Tamboli P, et al.

Costa Mesa (College of Costa Mesa Hospital) - Infantile polycystic kidney disease
Glendale - Autosomal recessive polycystic kidney disease
Loma Linda - Kidney infantile polycystic kidney
Orange (UCI Medical Center) - Autosomal recessive polycystic kidney disease
San Diego (Naval Medical Center) - Autosomal recessive polycystic kidney disease
Alabama (Cunningham Pathology) - Infantile polycystic kidney disease
Florida, Orlando - Polycystic kidney disease
Georgia, Atlanta - Autosomal recessive polycystic kidney disease
Illinois (Evanston Hospital) - Polycystic kidney disease
Illinois (Heartland Regional Medical Center) - Polycystic disease
Kansas (Coffeyville Regional Medical Center) - Polycystic kidney
Kansas (Peterson Laboratory Services) - Polycystic renal disease, infantile (1); Cystic nephroma (1)
Maryland, Bethesda - Autosomal recessive infantile polycystic kidney disease
New York (Buffalo General Hospital) - Infantile polycystic kidney disease
Ohio, Columbus - Multicystic kidney; DDx: Autosomal recessive polycystic kidney disease vs. multicystic renal dysplasia
Oregon (Oregon Health & Sciences University Residents) - Autosomal recessive polycystic kidney disease
Pennsylvania (Wilkes-Barre General Hospital) - Cystic nephroma
Puerto Rico (University of Puerto Rico) - Autosomal recessive polycystic kidney disease
Tennessee, Knoxville - Autosomal recessive polycystic kidney disease
Texas (Crystal Beach) - Sponge kidney
Texas (Scott & White Hospital) - Polycystic kidney disease
Texas, Lubbock - Renal dysplasia
Wisconsin, Madison - Polycystic kidney disease, autosomal recessive
Wisconsin (Medical Assessment and Consultation, S.C.) - Renal dysgenesis (infantile polycystic kidney disease)
Wisconsin (The Medical College of Wisconsin) - Polycystic kidney disease, autosomal recessive
Australia (Royal Prince Alfred Hospital) - Infantile polycystic kidney
Canada (Pasqua Hospital) - Infantile polycystic disease
Japan (Asahi General Hospital) - Cystic nephroma (1); Autosomal recessive polycystic kidney disease (1)
Japan (Setagaya-Ku) - Cystic nephroma
Saudi Arabia (King Khalid University Hospital) - Infantile polycystic kidney disease
The Netherlands, Amstelveen - Infantile polycystic kidney disease

Case 2 - Diagnosis:

Autosomal recessive (infantile) polycystic kidney disease, kidney
T-71000, M-26740

Case 2 - References:

Cystic diseases of the kidney: molecular biology and genetics. *Arch Pathol Lab Med* 2010; Apr;134(4): p569-82. Deltas C; Papagregoriou G.

CD14 : a candidate biomarker for the prognosis of polycystic kidney disease. *Kidney Int* 2010; Sep;78(6): p537-38 Van den Heuvel GB.

Autosomal recessive polycystic kidney disease and congenital hepatic fibrosis: summary statement of a first National Institutes of Health/Office of Rare Diseases conference. *J Pediatr* 2006; Aug;149(2): p159-64. Gunay-Aygun M; Avner ED, et al.

Renal cystic diseases: a review. *Adv Anat Pathol* 2006; Jan;13(1): p26-56. Bisceglia M; Galliani CA; Senger C; Stallone C; Sessa A.

Autosomal recessive polycystic kidney disease: the clinical experience in North America. *Pediatrics* 2003; May;111(5 Pt 1): p1072-80. Guay-Woodford LM; Desmond RA.

Costa Mesa (College of Costa Mesa Hospital) - Renal cell carcinoma, chromophobe type
Glendale - Oncocytoma
Loma Linda - Chromophobe renal cell carcinoma
Orange (UCI Medical Center) - Oncocytoma
San Diego (Naval Medical Center) - Oncocytoma
Alabama (Cunningham Pathology) - Oncocytoma
Florida, Orlando - Oncocytoma
Georgia, Atlanta - Renal oncocytoma
Illinois (Evanston Hospital) - Oncocytoma
Illinois (Heartland Regional Medical Center) - Oncocytoma
Kansas (Coffeyville Regional Medical Center) - Oncocytoma of kidney
Kansas (Peterson Laboratory Services) - Oncocytoma (2)
Maryland, Bethesda - Oncocytoma, left kidney
New York (Buffalo General Hospital) - Renal oncocytoma
Ohio, Columbus - Oncocytoma
Oregon (Oregon Health & Sciences University Residents) - Oncocytoma
Pennsylvania (Wilkes-Barre General Hospital) - Renal oncocytoma with focal atypia
Puerto Rico (University of Puerto Rico) - Oncocytoma
Tennessee, Knoxville - Oncocytoma
Texas (Crystal Beach) - Renal papillary carcinoma
Texas (Scott & White Hospital) - Chromophobe renal cell carcinoma vs. oncocytoma with atypia
Texas, Lubbock - Chromophobe carcinoma
Wisconsin, Madison - Renal oncocytoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Renal oncocytoma
Wisconsin (The Medical College of Wisconsin) - Oncocytoma
Australia (Royal Prince Alfred Hospital) - Oncocytoma
Canada (Pasqua Hospital) - Oncocytoma
Japan (Asahi General Hospital) - Oncocytoma (2)
Japan (Setagaya-Ku) - Renal oncocytoma
Saudi Arabia (King Khalid University Hospital) - Renal oncocytoma
The Netherlands, Amstelveen - Renal cell carcinoma chromophobe, mimicking oncocytic tumor

Case 3 - Diagnosis:

Oncocytoma, kidney
T-71000, M-82900

Case 3 - References:

Cytogenetic analysis of a series of 13 renal oncocytomas. *J Urol* 2004; Feb;171(2 Pt 1): p602-4. Lindgren V; Paner GP, et al.

The evolving concept of renal neoplasia: impact of emerging molecular and electron microscopic studies. *Ultrastruct Pathol* 2005; May-Aug;29(3-4): p277-82. Picken MM.

Oncocytoma-like angiomyolipoma. A clinicopathologic and immunohistochemical study of 2 cases. *Arch Pathol Lab Med* 2002; May;126(5): p610-2. Martignoni G; Pea M; Bonetti F; Brunelli M; Eble JN.

Cytokeratin 7: a useful adjunct in the diagnosis of chromophobe renal cell carcinoma..*Histopathology* 2002; Jun;40(6): p563-7. Mathers ME; Pollock AM, et al.

Oncocytic renal neoplasms: diagnostic considerations. *Clin Lab Med* 2005; Jun;25(2): p317-39, vi. Abrahams NA; Tamboli P.

Expression of KIT (CD117) in renal cell carcinoma and renal oncocytoma. *Oncology* 2005;68(2-3): p269-75. Kruger S; Sotlar K, et al.

Costa Mesa (College of Costa Mesa Hospital) - Renal cell carcinoma
Glendale - Chromophobe renal cell carcinoma
Loma Linda - Renal cell carcinoma, kidney
Orange (UCI Medical Center) - Chromophobe renal cell carcinoma
San Diego (Naval Medical Center) - Chromophobe
Alabama (Cunningham Pathology) - Renal cell carcinoma, clear cell type
Florida, Orlando - Chromophobe renal cell carcinoma
Georgia, Atlanta - Chromophobe renal cell carcinoma
Illinois (Evanston Hospital) - Chromophobe renal cell carcinoma
Illinois (Heartland Regional Medical Center) - Renal cell carcinoma, chromophobe type
Kansas (Coffeyville Regional Medical Center) - Clear cell renal carcinoma
Kansas (Peterson Laboratory Services) - Renal cell carcinoma, chromophobe (2)
Maryland, Bethesda - Chromophobe renal cell carcinoma, right kidney
New York (Buffalo General Hospital) - Renal cell carcinoma, chromophobe type
Ohio, Columbus - Chromophobe variant of renal cell carcinoma
Oregon (Oregon Health & Sciences University Residents) - Chromophobe renal cell carcinoma
Pennsylvania (Wilkes-Barre General Hospital) - Chromophobe carcinoma
Puerto Rico (University of Puerto Rico) - Chromophobe renal cell carcinoma
Tennessee, Knoxville - Chromophobe renal cell carcinoma
Texas (Crystal Beach) - Clear cell carcinoma
Texas (Scott & White Hospital) - Clear cell renal cell carcinoma
Texas, Lubbock - Clear cell renal carcinoma
Wisconsin, Madison - Chromophobe renal cell carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Chromophobe renal cell carcinoma
Wisconsin (The Medical College of Wisconsin) - Renal cell carcinoma, chromophobe type
Australia (Royal Prince Alfred Hospital) - Renal cell carcinoma, chromophobe variant
Canada (Pasqua Hospital) - Chromophobe carcinoma
Japan (Asahi General Hospital) - Chromophobe renal cell carcinoma (2)
Japan (Setagaya-Ku) - Clear cell carcinoma
Saudi Arabia (King Khalid University Hospital) - Chromophobe renal cell carcinoma
The Netherlands, Amstelveen - Clear cell renal cell carcinoma

Case 4 - Diagnosis:

Chromophobe renal cell carcinoma
T-71000, M-83123

Consultation: Dr. Lester Thompson, M.D. "Chromophobe renal cell carcinoma".

Case 4 - References:

KIT and RCC are useful in distinguishing chromophobe renal cell carcinoma from the granular variant of clear cell renal cell carcinoma. *Am J Surg Pathol* 2005; May;29(5): p640-6. Wang HY; Mills SE.

Chromophobe renal cell carcinoma: analysis of 61 cases. *Cancer* 2004; Apr 1;100(7): p1406-10. Peyromaure M; Misrai V, et al.

Cytokeratin 7: a useful adjunct in the diagnosis of chromophobe renal cell carcinoma. *Histopathology* 2002; Jun;40(6): p563-7.Mathers ME; Pollock AM, et al.

The chromophobe tumor grading system is the preferred grading scheme for chromophobe renal cell carcinoma. *J Urol* 2011; Dec;186(6): p2168-74. Finley DS; Shuch B, et al.

Cytological features of chromophobe renal cell carcinoma, classic type. A report of nine cases. *Cytopathology* 2009; Feb;20(1): p44-9. Tejerina E; Gonzalez-Peramato P, et al.

Costa Mesa (College of Costa Mesa Hospital) - Nephroblastoma
Glendale - Wilms tumor
Loma Linda - Wilms tumor
Orange (UCI Medical Center) - Wilms tumor
San Diego (Naval Medical Center) - Wilms tumor
Alabama (Cunningham Pathology) - Nephroblastoma
Florida, Orlando - Wilms tumor
Georgia, Atlanta - Wilms tumor (nephroblastoma)
Illinois (Evanston Hospital) - Wilms tumor
Illinois (Heartland Regional Medical Center) - Nephroblastoma
Kansas (Coffeyville Regional Medical Center) - Nephroblastoma (Wilms)
Kansas (Peterson Laboratory Services) - Nephroblastoma (1); Wilms tumor (1)
Maryland, Bethesda - Wilms tumor, left kidney
New York (Buffalo General Hospital) - Wilms tumor
Ohio, Columbus - Wilms tumor
Oregon (Oregon Health & Sciences University Residents) - Wilms tumor, favorable histology
Pennsylvania (Wilkes-Barre General Hospital) - Nephroblastoma, unfavorable histology
Puerto Rico (University of Puerto Rico) - Wilms tumor, favorable histology
Tennessee, Knoxville - Wilms tumor
Texas (Crystal Beach) - Neuroblastoma, adrenal
Texas (Scott & White Hospital) - Wilms tumor
Texas, Lubbock - Wilms tumor
Wisconsin, Madison - Wilms tumor
Wisconsin (Medical Assessment and Consultation, S.C.) - Nephroblastoma (Wilms tumor)
Wisconsin (The Medical College of Wisconsin) - Wilms tumor, triphasic (favorable histology)
Australia (Royal Prince Alfred Hospital) - Wilms tumor
Canada (Pasqua Hospital) - Wilms tumor
Japan (Asahi General Hospital) - Wilms tumor (1); Nephroblastoma (1)
Japan (Setagaya-Ku) - Congenital mesoblastic nephroma
Saudi Arabia (King Khalid University Hospital) - Wilms tumor (nephroblastoma), favorable histology
The Netherlands, Amstelveen - Wilms tumor

Case 5 - Diagnosis:

Wilms tumor (nephroblastoma), favorable histology, kidney
T-71000, M-89603

Consultation: Dr. Craig Zuppan, Loma Linda University Medical Center

Case 5 - References:

Pathology, genetics and cytogenetics of Wilms' tumour. *Pathology* 2011; Jun;43(4): p302-12. Md Zin R; Murch A; Charles A.

The management of synchronous bilateral Wilms tumor: a report from the National Wilms Tumor Study Group. *Ann Surg* 2011; May;253(5): p1004-10. Hamilton TE; Ritchey ML, et al.

Distinct features of teratoid Wilms tumor. *J Pediatr Surg* 2010; Oct;45(10): pe13-9. Sultan I; Ajlouni F, et al.

Fine needle aspiration cytology of fetal rhabdomyomatous and teratoid Wilms tumor. *Acta Cytol* 2010; Jul-Aug;54(4): p563-8. Nayak A; Iyer VK, et al.

C-kit protein expression in Wilms' tumour: an immunohistochemical study. *Eur J Surg Oncol* 2009; Jun;35(6): p629-35. Giordano G; Campanini N, et al.

Nonviable tumor tissue should not upstage Wilms' tumor from stage I to stage II: a report from the SIOP 93-01 nephroblastoma trial and study. *Pediatr Dev Pathol* 2009; Mar-Apr;12(2): p111-5. Vujanic GM; Harms D, et al.

Costa Mesa (College of Costa Mesa Hospital) - Neuroendocrine carcinoma, moderate differentiation
Glendale - Small cell carcinoma
Loma Linda - Anaplastic renal cell carcinoma
Orange (UCI Medical Center) - Neuroendocrine carcinoma
San Diego (Naval Medical Center) - Neuroendocrine carcinoma
Alabama (Cunningham Pathology) - Carcinoid
Florida, Orlando - Neuroendocrine carcinoma
Georgia, Atlanta - Moderately differentiated neuroendocrine carcinoma (atypical carcinoid)
Illinois (Evanston Hospital) - High grade neuroendocrine carcinoma
Illinois (Heartland Regional Medical Center) - Poorly differentiated carcinoma with neuroendocrine features
Kansas (Coffeyville Regional Medical Center) - Neuroendocrine carcinoma, kidney
Kansas (Peterson Laboratory Services) - Neuroendocrine carcinoma, high grade (2)
Maryland, Bethesda - Poorly differentiated neuroendocrine carcinoma, renal pelvis
New York (Buffalo General Hospital) - Small cell carcinoma
Ohio, Columbus - Neuroendocrine carcinoma
Oregon (Oregon Health & Sciences University Residents) - Neuroendocrine carcinoma, grade 3 of 3
Pennsylvania (Wilkes-Barre General Hospital) - Small cell carcinoma, kidney//renal pelvis
Puerto Rico (University of Puerto Rico) - Neuroendocrine carcinoma, high grade
Tennessee, Knoxville - Small cell carcinoma
Texas (Crystal Beach) - Neuroendocrine carcinoma
Texas (Scott & White Hospital) - Neuroendocrine carcinoma
Texas, Lubbock - Neuroendocrine carcinoma
Wisconsin, Madison - Small cell neuroendocrine carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Neuroendocrine carcinoma
Wisconsin (The Medical College of Wisconsin) - Moderately differentiated neuroendocrine carcinoma
Australia (Royal Prince Alfred Hospital) - Neuroendocrine carcinoma
Canada (Pasqua Hospital) - Neuroendocrine carcinoma
Japan (Asahi General Hospital) - Collecting duct carcinoma (1); Neuroendocrine carcinoma (1)
Japan (Setagaya-Ku) - Carcinoid tumor
Saudi Arabia (King Khalid University Hospital) - Neuroendocrine carcinoma/small cell carcinoma
The Netherlands, Amstelveen - Adenocarcinoma and neuroendocrine differentiation

Case 6- Diagnosis:

Neuroendocrine carcinoma, kidney
T-71000, M-81203

Case 6 - References:

Primary small cell carcinoma of the kidney with tumour thrombus extension into the inferior vena cava and pulmonary artery: a case report and review of the literature. *J Int Med Res* 2009; Mar-Apr;37(2): p587-93. Xu G; Chen J; Zhang Z.

Primary large cell neuroendocrine carcinoma of the kidney. *Pathol Oncol Res* 2010; Mar;16(1): p139-42. Dundr P; Pesl M, et al.

Chromophobe renal cell carcinoma with neuroendocrine differentiation. *APMIS* 2008; Sep;116(9): p859-65. Parada DD; Pena KB.

Merkel cell carcinoma metastasizing to the kidney mimicking primary neuroendocrine renal cancer. *APMIS* 2007; Jun;115(6): p774-7. Pollheimer VS; Bodo K, et al.

Neuroendocrine breast carcinoma metastatic to renal cell carcinoma and ipsilateral adrenal gland. *Pathol Res Pract* 2008; 204(11): p851-5. Ulamec M; Tomas D; Peric-Balja M; Spajic B; Hes O; Kruslin B, et al.

Case No. 7, Accession No. 30859 May 2012

Costa Mesa (College of Costa Mesa Hospital) - Renal cell carcinoma, recurrent
Glendale - Renal cell carcinoma
Loma Linda - Renal cell carcinoma, clear cell tumor
Orange (UCI Medical Center) - Clear cell renal cell carcinoma
San Diego (Naval Medical Center) - Metastatic renal cell carcinoma
Alabama (Cunningham Pathology) - Renal cell carcinoma
Florida, Orlando - Neuroendocrine carcinoma
Georgia, Atlanta - Metastatic conventional renal cell carcinoma
Illinois (Evanston Hospital) - Clear cell renal cell carcinoma
Illinois (Heartland Regional Medical Center) - Renal cell carcinoma, clear cell type
Kansas (Coffeyville Regional Medical Center) - Renal cell (clear) carcinoma, adrenal
Kansas (Peterson Laboratory Services) - Renal cell carcinoma, clear cell, grade 2/4 (1); Renal cell carcinoma (1)
Maryland, Bethesda - Metastatic clear cell (conventional renal cell carcinoma, right adrenal
New York (Buffalo General Hospital) - Metastatic renal cell carcinoma, clear cell type
Ohio, Columbus - Metastatic renal cell carcinoma, clear cell type
Oregon (Oregon Health & Sciences University Residents) - Metastatic renal cell carcinoma
Pennsylvania (Wilkes-Barre General Hospital) - Metastatic renal clear cell carcinoma to adrenal gland
Puerto Rico (University of Puerto Rico) - Metastatic clear cell renal cell carcinoma
Tennessee, Knoxville - Recurrent clear cell renal cell carcinoma
Texas (Crystal Beach) - Chromophobe carcinoma
Texas (Scott & White Hospital) - Metastatic renal cell carcinoma
Texas, Lubbock - Metastatic renal carcinoma, clear cell type
Wisconsin, Madison - Renal cell carcinoma, clear cell type
Wisconsin (Medical Assessment and Consultation, S.C.) - Renal cell carcinoma, clear cell type
Wisconsin (The Medical College of Wisconsin) - Renal cell carcinoma, clear cell conventional type
Australia (Royal Prince Alfred Hospital) - Clear cell renal cell carcinoma
Canada (Pasqua Hospital) - Renal cell carcinoma, clear cell type
Japan (Asahi General Hospital) - Renal cell carcinoma (1); Clear cell renal cell carcinoma (1)
Japan (Setagaya-Ku) - Adrenal cortical adenoma
Saudi Arabia (King Khalid University Hospital) - Renal cell carcinoma, conventional type
The Netherlands, Amstelveen - Clear cell carcinoma, recurrence

Case 7 - Diagnosis:

Renal cell carcinoma, clear cell type, recurrent/metastatic to retroperitoneum and adrenal gland
T-Y4600, M-83123

Case 7 - References:

Xp11 translocation renal cell carcinoma. *Pathology* 2010; Jun;42(4): p369-73. Ross H; Argani P.

Grading of clear cell renal cell carcinoma should be based on nucleolar prominence. *Am J Surg Pathol* 2011; Aug;35(8): p1134-9. Delahunt B; Sika-Paotonu D, et al.

Loss of chromosome 9p is an independent prognostic factor in patients with clear cell renal cell carcinoma. *Mod Pathol* 2008; Jan;21(1): p1-6. Brunelli M; Eccher A, et al.

Melanotic clear cell epithelioid angiomyolipoma: a rare entity and a mimic of clear cell renal carcinoma. *Histopathology* 2007; Feb;50(3): p393-4. Goyal R; Joshi K; Singh SK; Radotra BD.

The utility of PAX-2 in distinguishing metastatic clear cell renal cell carcinoma from its morphologic mimics: an immunohistochemical study with comparison to renal cell carcinoma marker. *Am J Surg Pathol* 2008; Oct;32(10): p1462-7. Gokden N; Gokden M, et al.

Case No. 8, Accession No. 13220 May 2012

Costa Mesa (College of Costa Mesa Hospital) - Sarcoma: leiomyosarcoma, rhabdomyosarcoma
Glendale - Alveolar rhabdomyosarcoma
Loma Linda - Non seminomatous germ cell tumor of tissue, embryonal carcinoma

Orange (UCI Medical Center) - Spindle cell rhabdomyosarcoma
San Diego (Naval Medical Center) - Rhabdomyosarcoma, feature alveolar
Alabama (Cunningham Pathology) - PNET
Florida, Orlando - Embryonal carcinoma vs. testicular lymphoma
Georgia, Atlanta - Rhabdomyosarcoma
Illinois (Evanston Hospital) - Rhabdomyosarcoma
Illinois (Heartland Regional Medical Center) - Embryonal rhabdomyosarcoma
Kansas (Coffeyville Regional Medical Center) - Granulosa cell tumor, testis
Kansas (Peterson Laboratory Services) - Rhabdomyosarcoma (2)
Maryland, Bethesda - Malignant Leydig cell tumor, right testis
New York (Buffalo General Hospital) - Seminoma
Ohio, Columbus - Poorly differentiated malignant neoplasm; DDx: PNET synovial sarcoma, neuroblastoma
Oregon (Oregon Health & Sciences University Residents) - Embryonal rhabdomyosarcoma with diffuse anaplasia
Pennsylvania (Wilkes-Barre General Hospital) - Teratocarcinoma/mixed germ cell tumor
Puerto Rico (University of Puerto Rico) - Embryonal rhabdomyosarcoma vs. PNET
Tennessee, Knoxville - Rhabdomyosarcoma
Texas (Crystal Beach) - Yolk sac tumor
Texas (Scott & White Hospital) - Yolk sac tumor
Texas, Lubbock - Embryonal rhabdomyosarcoma
Wisconsin, Madison - High grade neoplasm, favor rhabdomyosarcoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Malignant neoplasm, favor embryonal rhabdomyosarcoma
Wisconsin (The Medical College of Wisconsin) - Embryonal rhabdomyosarcoma
Australia (Royal Prince Alfred Hospital) - Desmoplastic round cell tumor (differential diagnoses rhabdomyosarcoma and neuroblastoma)
Canada (Pasqua Hospital) - Small blue cell tumor, rhabdomyosarcoma
Japan (Asahi General Hospital) - Germ cell tumor (1); Embryonal rhabdomyosarcoma (1)
Japan (Setagaya-Ku) - Seminoma
Saudi Arabia (King Khalid University Hospital) - Embryonal rhabdomyosarcoma
The Netherlands, Amstelveen - Spermatocytic seminoma

Case 8 - Diagnosis:

Rhabdomyosarcoma, testis
T-78000, M-89003

Director's note: Tumor was desmin and actin positive. (drc)

Case 8 - References:

A rare case of paratesticular embryonal rhabdomyosarcoma diagnosed by fine needle aspiration: a case report. *Acta Cytol* 2009; May-Jun;53(3): p319-22. Valeri RM; Papanikolaou A, et al.

An unusual mixed germ cell tumor of the testis consisting of rhabdomyosarcoma, mature teratoma and yolk sac tumor. *Asian J Androl* 2010; May;12(3): p451-2. Lovric E; Hizak DB, et al.

PAX immunoreactivity identifies alveolar rhabdomyosarcoma. *Am J Surg Pathol* 2009; May;33(5): p775-80. Sullivan LM; Atkins KA; Le Gallo RD.

Rhabdomyosarcoma: value of myogenin expression analysis and molecular testing in diagnosing the alveolar subtype: an analysis of 109 paraffin-embedded specimens. *Cancer* 2004; Dec 15;101(12): p2817-24. Hostein I; Andraud-Fregeville M; Guillou L, et al.

Rhabdomyosarcomas in adults and children: an update. *Arch Pathol Lab Med* 2006; Oct;130(10): p1454-65. Parham DM; Ellison DA.

Sclerosing rhabdomyosarcomas in children and adolescents: a clinicopathologic review of 13 cases from the Intergroup Rhabdomyosarcoma Study Group and Children's Oncology Group. *Pediatr Dev Pathol* 2004; Nov-Dec;7(6): p583-94. Chiles MC; Parham DM, et al.

Costa Mesa (College of Costa Mesa Hospital) - Adenomatoid tumor
Glendale - Adenomatoid tumor
Loma Linda - Yolk sac tumor ,testicle
Orange (UCI Medical Center) - Adenomatoid tumor
San Diego (Naval Medical Center) - Adenomatoid tumor
Alabama (Cunningham Pathology) - Adenomatoid tumor
Florida, Orlando - Adenomatoid tumor
Georgia, Atlanta - Adenomatoid tumor
Illinois (Evanston Hospital) - Adenomatoid tumor
Illinois (Heartland Regional Medical Center) - Adenomatoid tumor
Kansas (Coffeyville Regional Medical Center) - Adenomatoid tumor, testis
Kansas (Peterson Laboratory Services) - Adenomatoid tumor (2)
Maryland, Bethesda - Adenomatoid tumor
New York (Buffalo General Hospital) - Adenomatoid tumor
Ohio, Columbus - Adenomatoid tumor
Oregon (Oregon Health & Sciences University Residents) - Adenomatoid tumor
Pennsylvania (Wilkes-Barre General Hospital) - Adenomatoid tumor
Puerto Rico (University of Puerto Rico) - Adenomatoid tumor
Tennessee, Knoxville - Adenomatoid tumor
Texas (Crystal Beach) - Adenomatoid tumor
Texas (Scott & White Hospital) - Adenomatoid tumor
Texas, Lubbock - Adenomatoid tumor
Wisconsin, Madison - Adenomatoid tumor
Wisconsin (Medical Assessment and Consultation, S.C.) - Adenomatoid tumor
Wisconsin (The Medical College of Wisconsin) - Adenomatoid tumor
Australia (Royal Prince Alfred Hospital) - Adenomatoid tumor
Canada (Pasqua Hospital) - Adenomatoid tumor (1)
Japan (Asahi General Hospital) - Spermatocele (1); Adenomatoid tumor (1)
Japan (Setagaya-Ku) - Adenomatoid tumor
Saudi Arabia (King Khalid University Hospital) - Adenomatoid tumor
The Netherlands, Amstelveen - Adenomatoid tumor

Case 9 - Diagnosis:

Adenomatoid tumor, epididymis
T-79100, M-90540

Director's note: Tumor was CK and calretinin positive. (drc)

Case 9 - References:

Adenomatoid tumor of the testes. *Urology* 2004; Apr;63(4): p779-81. Williams SB; Han M; Jones R; Andrawis R..
Paratesticular mesothelial proliferations. *Semin Diagn Pathol* 2003; Nov;20(4): p272-8. Churg A.
The role of fine needle aspiration cytology in evaluation of epididymal nodular lesions. *Acta Cytol* 2007; Mar-Apr;51(2): p168-70. Tewari R; Mishra MN; Salopal TK.
[Adenomatoid tumor of the epididymis: an infrequent case. *Arch Esp Urol* 2009; Oct;62(8): p656-60. Pila Perez R; Rosales Torres P; Pila Pelaez R; Holguin Prieto V; Torres Vargas E.
Adenomatoid tumors of the female and male genital tracts express WT1. *Int J Gynecol Pathol* 2004; Apr;23(2): p123-8. Schwartz EJ; Longacre TA.
Rapidly growing adenomatoid tumor extending into testicular parenchyma mimics testicular carcinoma. *Urology* 2004; Sep;64(3): p589. Evans K.
Cytologic features of paratesticular adenomatoid tumor. *Acta Cytol* 2004; May-Jun;48(3): p457-8. Perez-Campos A; Jimenez-Heffernan JA; Perez F; Vicandi B.

Costa Mesa (College of Costa Mesa Hospital) - Schwannoma
Glendale - Sarcoma
Orange (UCI Medical Center) - Mesoblastic nephroma
San Diego (Naval Medical Center) - Spindle cell neoplasm
Alabama (Cunningham Pathology) - Sarcomatoid renal cell carcinoma
Florida, Orlando - Solitary fibrous tumor
Georgia, Atlanta - Malignant spindle cell neoplasm synovial sarcoma
Illinois (Evanston Hospital) - Spindle cell sarcoma, synovial sarcoma
Illinois (Heartland Regional Medical Center) - Low grade spindle cell stromal neoplasm
Kansas (Coffeyville Regional Medical Center) - Low grade leiomyosarcoma, kidney
Kansas (Peterson Laboratory Services) - Synovial sarcoma (2)
Maryland, Bethesda - Atypical fibrous histiocytoma, kidney
New York (Buffalo General Hospital) - Renal leiomyoma
Ohio, Columbus - Mesoblastic nephroma
Oregon (Oregon Health & Sciences University Residents) - Spindle cell neoplasm, differential includes MEST
Pennsylvania (Wilkes-Barre General Hospital) - Monophasic synovial sarcoma
Puerto Rico (University of Puerto Rico) - Leiomyoma
Tennessee, Knoxville - Synovial sarcoma
Texas (Crystal Beach) - Angiomyolipoma with prevalence of smooth muscle component
Texas (Scott & White Hospital) - Leiomyoma
Texas, Lubbock - Leiomyosarcoma
Wisconsin, Madison - Low grade fibrosarcoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Renal leiomyoma
Wisconsin (The Medical College of Wisconsin) - Low grade spindle cell sarcoma
Australia (Royal Prince Alfred Hospital) - Mesoblastic nephroma/fibrosarcoma
Canada (Pasqua Hospital) - Synovial carcinoma
Japan (Asahi General Hospital) - Sarcomatoid renal cell carcinoma (1); Leiomyosarcoma (1)
Japan (Setagaya-Ku) - Fibrosarcoma
Saudi Arabia (King Khalid University Hospital) - Mesoblastic nephroma (5); Metanephric stromal tumor in an adult (5)
The Netherlands, Amstelveen - Sarcomatoid carcinoma

Case 10 - Diagnosis:

Spindle cell neoplasm, favor smooth muscle tumor of uncertain potential (STUMP)
T-71000, M-80009

Case 10 - References:

Leiomyoma of the kidney parenchyma. *Pathol Int* 2011; Aug;61(8): p495-7. Terada T. Leiomyomatous angiomyolipoma of kidney. *Urol J* 2009; Spring;6(2): p87. Munjal K; Agrawal S; Munjal S.

Renal leiomyoma: an immunohistochemical, ultrastructural and comparative genomic hybridization study. *Histol Histopathol* 2007; Aug;22(8): p883-8. Kuroda N; Inoue Y, et al.

Renal capsular leiomyoma, *Urology* 2008; Jun;71(6): p1226.e1-3. Hogan A; Smyth GK, et al.