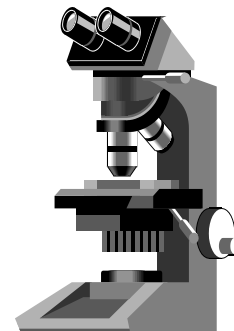


CALIFORNIA  
TUMOR TISSUE REGISTRY

## *GENITOURINARY PATHOLOGY*

Minutes – Subscription B

March 2014



### **SUGGESTED READING (General Topics from Recent Literature):**

Revisiting overdiagnosis and fatality in thyroid cancer. Vollmer RT. *Am J Clin Pathol* 2014; 141:128-132.

Testicular hemorrhage, necrosis and vasculopathy: Likely manifestations of intermittent torsion that clinically mimic a neoplasm. Kao CS and Zhang C. *Am J Surg Pathol* 2014; 38:34-44.

“Colloid-rich” follicular neoplasm/suspicious for follicular neoplasm thyroid fine-needle aspiration specimens: Cytologic, histologic, and molecular basis for considering an alternate view. Ohori NP, Wolfe J, et al. *Cancer Cytopathol* 2013; 121:718-728.

“Suspicious for papillary thyroid carcinoma” before and after the Bethesda system for reporting thyroid cytopathology: Impact of standardized terminology. Olson MT, Boonyarunnate T, et al. *Acta Cytol* 2013; 58:15-22.

Targeted next-generation sequencing panel (ThyroSeq) for detection of mutations in thyroid cancer. Nikiforova MN, Wald AI, et al. *J Clin Endocrinol Metab* 2013; 98:E1852-E1860.

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

## **FILE DIAGNOSES**

**CTTR Subscription B**

**March 2014**

**Case 1:**

Low grade papillary urothelial carcinoma, kidney

**Case 2:**

Classic seminoma (“pure”), testis

**Case 3:**

Embryonal carcinoma, testis

**Case 4:**

Mixed germ cell tumor with immature teratoma and embryonal carcinoma, testis

**Case 5:**

Dedifferentiated liposarcoma, paratesticular

**Case 6:**

Squamous cell carcinoma, prostate

**Case 7:**

High grade urothelial carcinoma with micropapillary features, bladder

**Case 8:**

Carcinosarcoma with rhabdomyoblastic features, bladder

**Case 9:**

Oncocytoma, kidney

**Case 10:**

Renal cell carcinoma, clear cell type, kidney

Glendale - Low grade papillary urothelial carcinoma  
Delaware (Armed Forces Medical Examiner System) - Low grade papillary urothelial carcinoma  
Georgia, Atlanta - Papillary urothelial carcinoma  
Illinois (Heartland Regional Medical Center) - Papillary urothelial carcinoma, low grade. No invasion seen.  
Illinois (Northwestern University) - Low grade papillary urothelial cell carcinoma  
Illinois, Oak Brook - Low grade urothelial carcinoma  
Maryland (University of Maryland) - Invasive high grade urothelial carcinoma with lymphangio invasion  
Michigan (University of Michigan) - Non-invasion low-grade papillary urothelial carcinoma  
Ohio (The University of Toledo Medical Center) - Papillary urothelial cell carcinoma, high grade  
Oregon (Oregon Health Science University) - Papillary urothelial cell carcinoma  
Puerto Rico (University of Puerto Rico) - Non-invasive papillary urothelial carcinoma, low grade  
Tennessee (Wake Forest University) - Low grade non-invasive papillary urothelial carcinoma  
Texas (Anderson Cancer Center) - Papillary squamous carcinoma  
Texas, Lubbock - High grade papillary urothelial carcinoma  
Wisconsin (Medical Assessment & Cons., S.C.) - Low grade papillary urothelial carcinoma, non-invasive  
Australia (Royal Prince Alfred Hospital) - High grade invasive papillary urothelial carcinoma of renal pelvis  
Australia (St Vincent's Hospital, Sydney) - Papillary urothelial carcinoma, high grade  
Canada (Pasqua Hospital) - Low grade papillary urothelial carcinoma, non-invasive  
Canada (Royal Alexandra Hospital) - Non-invasive low grade papillary urothelial carcinoma  
Ireland (Connelly Hospital) - Papillary urothelial neoplasm  
Japan (Asahi General Hospital) - Non-infiltrating urothelial carcinoma, high grade  
Japan (University of Yamanashi) - Urothelial carcinoma  
Saudi Arabia (King Khalid University Hospital) - High grade papillary urothelial carcinoma  
United Kingdom (John Radcliffe Hospital) - Low grade papillary urothelial carcinoma

**Case 1 - Diagnosis:**

Low grade papillary urothelial carcinoma, kidney

**Case 1 - References:**

Low-grade papillary urothelial carcinoma of the urinary bladder: a clinicopathologic analysis of a post-World Health Organization/International Society of Urological Pathology classification cohort from a single academic center.  
*Arch Pathol Lab Med* 2010; Aug;134(8): p1160-3.  
Miyamoto H; Brimo F, Epstein JI, et al.

Prognostic significance of the 2004 WHO/ISUP classification for prediction of recurrence, progression, and cancer-specific mortality of non-muscle-invasive urothelial tumors of the urinary bladder: a clinicopathologic study of 1,515 cases.  
*Am J Clin Pathol* 2010; May;133(5): p788-95.  
Pan CC; Chang YH, et al.

Papillary urothelial hyperplasia: relationship to urothelial neoplasms.  
*Pathology* 2010 Jun;42(4): p360-3.  
Readal N; Epstein JI.

Non-invasive papillary urothelial neoplasms: the 2004 WHO/ISUP classification system.  
*Pathol Int* 2010; Jan;60(1): p1-8.  
Miyamoto H; Miller JS; Fajardo DA, Epstein JI, et al.

Glendale - Classic seminoma  
Delaware (Armed Forces Medical Examiner System) - Seminoma  
Georgia, Atlanta - Seminoma  
Illinois (Heartland Regional Medical Center) - Seminoma, classic  
Illinois (Northwestern University) - Seminoma

Illinois, Oak Brook - Typical seminoma  
Maryland (University of Maryland) - Seminoma  
Michigan (University of Michigan) - Seminoma  
Ohio (The University of Toledo Medical Center) - Seminoma  
Oregon (Oregon Health Science University) - Seminoma  
Puerto Rico (University of Puerto Rico) - Classic seminoma  
Tennessee (Wake Forest University) - Seminoma  
Texas (Anderson Cancer Center) - Seminoma  
Texas, Lubbock - Seminoma  
Wisconsin (Medical Assessment & Cons., S.C.) - Seminoma  
Australia (Royal Prince Alfred Hospital) - Seminoma  
Australia (St Vincent's Hospital, Sydney) - Seminoma, vessel invasion  
Canada (Pasqua Hospital) - Seminoma  
Canada (Royal Alexandra Hospital) - Seminoma  
Ireland (Connelly Hospital) - Seminoma  
Japan (Asahi General Hospital) - Seminoma  
Japan (University of Yamanashi) - Seminoma  
Saudi Arabia (King Khalid University Hospital) - Classic seminoma  
United Kingdom (John Radcliffe Hospital) - Classic seminoma

#### **Case 2 - Diagnosis:**

Classic seminoma ("pure"), testis

#### **Case 2 - References:**

The association between intratubular seminoma and invasive germ cell tumors.  
*Hum Pathol* 2006; Apr;37(4): p458-61.  
 Berney DM; Lee A, et al.

Tumor infiltrating lymphocytes in seminoma lesions comprise clonally expanded cytotoxic T cells.  
*Int J Cancer* 2006; Aug 15;119(4): p831-8.  
 Hadrup SR; Braendstrup O, et al.

Podoplanin, a novel marker for seminoma: A comparison study evaluating immunohistochemical expression of podoplanin and OCT3/4.  
*Ann Diagn Pathol* 2010; Oct;14(5): p331-6.  
 Idrees M; Saxena R, et al.

TCL1 is a diagnostic marker for intratubular germ cell neoplasia and classic seminoma.  
*Histopathology* 2010; Jul;57(1): p152-7.  
 Cao D; Lane Z, et al.

A rare case of classic testicular seminoma in an 86-year-old shows similar proliferation rate as in younger men.  
*Urology* 2007; Nov;70(5): p1007.e7-9.  
 Foell K; Martens M; Izawa JI.

Late recurrent seminoma: 18 years after bilateral orchidectomy in patient with bilateral stage one testicular seminoma.  
*Int Urol Nephrol* 2010; Mar;42(1): p69-72.  
 Ng CF; Tsui TM, et al.

#### **Case No. 3, Accession No. 31602**

**March 2014**

Glendale - Embryonal carcinoma  
Delaware (Armed Forces Medical Examiner System) - Embryonal carcinoma  
Georgia, Atlanta - Embryonal carcinoma with ITGCNU  
Illinois (Heartland Regional Medical Center) - Embryonal carcinoma  
Illinois (Northwestern University) - Embryonal carcinoma  
Illinois, Oak Brook - Embryonal carcinoma

Maryland (University of Maryland) - Embryonal carcinoma, intratubular germ cell neoplasia  
Michigan (University of Michigan) - Embryonal carcinoma  
Ohio (The University of Toledo Medical Center) - Embryonal carcinoma  
Oregon (Oregon Health Science University) - Embryonal carcinoma  
Puerto Rico (University of Puerto Rico) - Mixed germ-cell tumor (yolk sac + embryonal)  
Tennessee (Wake Forest University) - Embryonal carcinoma  
Texas (Anderson Cancer Center) - Yolk sac tumor  
Texas, Lubbock - Embryonal carcinoma  
Wisconsin (Medical Assessment & Cons., S.C.) - Embryonal carcinoma  
Australia (Royal Prince Alfred Hospital) - Embryonal carcinoma  
Australia (St Vincent's Hospital, Sydney) - Embryonal carcinoma with vessel invasion  
Canada (Pasqua Hospital) - Embryonal carcinoma  
Canada (Royal Alexandra Hospital) - Embryonal carcinoma  
Ireland (Connelly Hospital) - Embryonal carcinoma  
Japan (Asahi General Hospital) - Embryonal carcinoma  
Japan (University of Yamanashi) - Embryonal carcinoma  
Saudi Arabia (King Khalid University Hospital) - Mixed germ cell tumor (embryonal carcinoma predominant)  
United Kingdom (John Radcliffe Hospital) - Embryonal carcinoma

### **Case 3 - Diagnosis:**

Embryonal carcinoma, testis

### **Case 3 - References:**

Allelotyping analysis suggesting a consecutive progression from intratubular germ cell neoplasia to seminoma and then to embryonal carcinoma of the adult testis.

*Hum Pathol* 2013; Oct;44(10): p2312-22.

Miyai K; Yamamoto S, et al.

Association of intratubular seminoma and intratubular embryonal carcinoma with invasive testicular germ cell tumors.

*Am J Surg Pathol* 2007; Jul;31(7): p1045-9.

Lau SK; Weiss LM; Chu PG.

The frequency of intratubular embryonal carcinoma: implications for the pathogenesis of germ cell tumours.

*Histopathology* 2004; Aug;45(2): p155-61.

Berney DM; Lee A, et al.

Diagnosis of testicular carcinoma in situ '(intratubular and microinvasive)' seminoma and embryonal carcinoma using direct enzymatic alkaline phosphatase reactivity on frozen histological sections.

*Histopathology* 2011; Feb;58(3): p440-6.

Stoop H; Kirkels W, et al.

### **Case No. 4, Accession No. 23853**

**March 2014**

Glendale - Embryonal carcinoma, immature teratoma, yolk sac tumor

Delaware (Armed Forces Medical Examiner System) - Malignant mixed germ cell tumor

Georgia, Atlanta - Malignant mixed germ cell tumor

Illinois (Heartland Regional Medical Center) - Malignant mixed germ cell tumor (embryonal carcinoma, teratoma, yolk sac tumor)

Illinois (Northwestern University) - Teratoma with mixed germ cell tumor

Illinois, Oak Brook - Mixed germ cell tumor

Maryland (University of Maryland) - Mixed germ cell tumor, embryonal (60%) , immature teratoma (epithelial and stromal components, and primitive neural)

Michigan (University of Michigan) - Mixed germ cell tumor (embryonal and teratoma with mature and immature elements)

Ohio (The University of Toledo Medical Center) - Mixed germ cell tumor (embryonal carcinoma predominant)

Oregon (Oregon Health Science University) - Nonseminomatous mixed germ cell tumor comprising embryonal, choriocarcinoma, and teratoma  
Puerto Rico (University of Puerto Rico) - Mixed germ cell tumor (choriocarcinoma + yolk sac)  
Tennessee (Wake Forest University) - Yolk sac tumor and embryonal carcinoma  
Texas (Anderson Cancer Center) - Malignant teratoma  
Texas, Lubbock - Embryonal carcinoma 90%. Teratoma 10%  
Wisconsin (Medical Assessment & Cons., S.C.) - Mixed germ cell carcinoma (YST, EC, CC)  
Australia (Royal Prince Alfred Hospital) - Mixed germ cell tumor with immature teratoma and embryonal carcinoma  
Australia (St Vincent's Hospital, Sydney) - Mixed germ cell tumor, choriocarcinoma, teratoma, yolk sac tumor, embryonal carcinoma  
Canada (Pasqua Hospital) - Embryonal carcinoma, yolk sac tumor and teratoma  
Canada (Royal Alexandra Hospital) - Mixed non-seminomatous germ cell tumor  
Ireland (Connelly Hospital) - Mixed germ cell tumor with yolk sac  
Japan (Asahi General Hospital) - Mixed teratoma and embryonal carcinoma  
Japan (University of Yamanashi) - Embryonal carcinoma and teratoma  
Saudi Arabia (King Khalid University Hospital) - Mixed germ cell tumor (embryonal carcinoma component 40% teratoma)  
United Kingdom (John Radcliffe Hospital) - Mixed germ cell tumor (teratoma, embryonal, yolk sac and choriocarcinoma)

#### **Case 4 - Diagnosis:**

Mixed germ cell tumor with immature teratoma and embryonal carcinoma, testis

#### **Case 4 - References:**

Gonadal teratomas: a review and speculation.

*Adv Anat Pathol* 2004; Jan;11(1): p10-23.

Ulbright TM.

An overview of testicular germ cell tumors.

*Arch Pathol Lab Med* 2007 Aug;131(8): p1267-80.

Bahrami A; Ro JY; Ayala AG.

Mixed testicular germ cell tumour in a patient with previous pineal germinoma.

*J Neurooncol* 2011; Jan;101(1): p125-8.

Silva VB; Azevedo AL, et al.

Spontaneous regression of testicular germ cell tumors: an analysis of 42 cases.

*Am J Surg Pathol* 2006; Jul;30(7): p858-65.

Balzer BL; Ulbright TM.

Signet ring cell carcinoma of the testis: clinicopathologic and molecular evidence for germ cell tumor origin--a case report.

*Am J Surg Pathol* 2012 Feb;36(2): p311-5.

Williamson SR; Kum JB, et al.

Morphologic, immunohistochemical, and fluorescence in situ hybridization study of ovarian embryonal carcinoma with comparison to solid variant of yolk sac tumor and immature teratoma.

*Hum Pathol* 2010; May;41(5): p716-23.

Cheng L; Zhang S, et al.

Malignant teratoma 32 years after treatment of germ cell tumor confined to testis.

*Urology* 2006; Apr;67(4): p846.e11-3.

Pavic M; Meeus P, et al.

#### **Case No. 5, Accession No. 27720**

**March 2014**

Glendale - Dedifferentiated liposarcoma

Delaware (Armed Forces Medical Examiner System) - DFSP with sarcomatous transformation

Georgia, Atlanta - Undifferentiated pleomorphic sarcoma

Illinois (Heartland Regional Medical Center) - Spindle cell sarcoma, favor dedifferentiated liposarcoma  
Illinois (Northwestern University) - Malignant fibrous histiocytoma  
Illinois, Oak Brook - Malignant fibrous histiocytoma  
Maryland (University of Maryland) - Dedifferentiated liposarcoma  
Michigan (University of Michigan) - Dedifferentiated liposarcoma  
Ohio (The University of Toledo Medical Center) - Malignant fibrous histiocytoma  
Oregon (Oregon Health Science University) - Dedifferentiated liposarcoma  
Puerto Rico (University of Puerto Rico) - Myxoliposarcoma vs. angiomatous fibrosarcoma-like tumor  
Tennessee (Wake Forest University) - High grade sarcoma, favor liposarcoma  
Texas (Anderson Cancer Center) - Myxoid liposarcoma  
Texas, Lubbock - Myxoid liposarcoma with rhabdomyoblastic differentiation  
Wisconsin (Medical Assessment & Cons., S.C.) - Fibrosarcoma, fibromyxoid type  
Australia (Royal Prince Alfred Hospital) - Dedifferentiated liposarcoma  
Australia (St Vincent's Hospital, Sydney) - Liposarcoma, terrible slide quality  
Canada (Pasqua Hospital) - Sarcoma- dedifferentiated liposarcoma  
Canada (Royal Alexandra Hospital) - Dedifferentiated liposarcoma  
Ireland (Connolly Hospital) - Sarcoma  
Japan (Asahi General Hospital) - Cellular angiosarcoma  
Japan (University of Yamanashi) - Liposarcoma  
Saudi Arabia (King Khalid University Hospital) - Dedifferentiated liposarcoma  
United Kingdom (John Radcliffe Hospital) - Pleomorphic sarcoma/dedifferentiated liposarcoma

#### **Case 5 - Diagnosis:**

Dedifferentiated liposarcoma, paratesticular

#### **Case 5 - References:**

Unusual presentation of dedifferentiated liposarcoma as paratesticular mass.

*Indian J Pathol Microbiol* 2008; Jan-Mar;51(1): p42-4.

Ghosh A; Swami R, et al.

Paratesticular liposarcoma.

*J Urol* 2009; Jan;181(1): p331-2.

Fitzgerald S; MacLennan GT.

Recurrent paratesticular myxoid liposarcoma in a young man.

*J Urol* 2004; Jan;171(1): p343.

Ozkara H; Ozkan B, et al.

Paratesticular liposarcoma: unusual patterns of recurrence and importance of margins.

*Ann Surg Oncol* 2013; Jul;20(7): p2148-55.

Khandekar MJ; Raut CP, et al.

Paratesticular liposarcoma--a case report.

*Indian J Pathol Microbiol* 2006; Jul;49(3): p402-4.

Patrikar A; Mahore S; Bothale K.

Paratesticular myxoid liposarcoma: a case report.

*Indian J Pathol Microbiol* 2007; Apr;50(2): p387-8.

Hemalatha AL; Deepak Kumar B, et al.

#### **Case No. 6, Accession No. 31599**

**March 2014**

Glendale - Squamous cell carcinoma

Delaware (Armed Forces Medical Examiner System) - Invasive squamous cell carcinoma

Georgia, Atlanta - Squamous cell carcinoma

Illinois (Heartland Regional Medical Center) - Squamous cell carcinoma

Illinois (Northwestern University) - Squamous cell carcinoma

Illinois, Oak Brook - Invasive squamous cell carcinoma  
Maryland (University of Maryland) - Squamous cell carcinoma  
Michigan (University of Michigan) - Invasive squamous cell carcinoma  
Ohio (The University of Toledo Medical Center) - Invasive keratinizing squamous cell carcinoma  
Oregon (Oregon Health Science University) - Invasive high grade urothelial cell carcinoma with squamous differentiation  
Puerto Rico (University of Puerto Rico) - Squamous cell carcinoma  
Tennessee (Wake Forest University) - Squamous cell carcinoma  
Texas (Anderson Cancer Center) - Invasive squamous carcinoma  
Texas, Lubbock - Squamous carcinoma  
Wisconsin (Medical Assessment & Cons., S.C.) - Low grade squamous cell carcinoma (invasive)  
Australia (Royal Prince Alfred Hospital) - Squamous cell carcinoma of bladder  
Australia (St Vincent's Hospital, Sydney) - Squamous cell carcinoma  
Canada (Pasqua Hospital) - Squamous cell carcinoma  
Canada (Royal Alexandra Hospital) - Squamous cell carcinoma  
Ireland (Connelly Hospital) - Squamous cell carcinoma  
Japan (Asahi General Hospital) - Squamous cell carcinoma  
Japan (University of Yamanashi) - Squamous cell carcinoma  
Saudi Arabia (King Khalid University Hospital) - Squamous cell carcinoma  
United Kingdom (John Radcliffe Hospital) - High grade urothelial carcinoma with squamous differentiation

#### **Case 6 - Diagnosis:**

Squamous cell carcinoma, prostate

#### **Case 6 - References:**

Squamous cell carcinoma of the prostate.

*Arch Ital Urol Androl* 2006; Jun;78(2): p75-6.

Di Pietro C; Celia A, et al.

Carcinosarcoma of the prostate with urothelial and squamous components.

*J Urol* 2005; Feb;173(2): p439-40.

Rogers CG; Parwani A, Epstein JI, et al.

Prostate carcinoma with squamous differentiation: an analysis of 33 cases.

*Am J Surg Pathol* 2004; May;28(5): p651-7.

Parwani AV; Kronz JD; Epstein JI, et al.

Variants and unusual patterns of prostate cancer: clinicopathologic and differential diagnostic considerations.

*Adv Anat Pathol* 2012; Jul;19(4): p204-16.

Fine SW

Squamous cell carcinoma of the enlarged prostatic utricle in an adult.

*Urology* 2012 Feb;79(2): pe23-4.

Zhang C; Li X, et al.

Histological variants of prostatic carcinoma and their significance.

*Histopathology* 2012; Jan;60(1): p59-74.

Humphrey PA

Lymphoepithelioma-like carcinoma of the prostate.

*Hum Pathol* 2009; Jul;40(7): p982-7.

Lopez-Beltran A; Cheng L, et al.

#### **Case No. 7, Accession No. 31569**

**March 2014**

Glendale - High grade urothelial carcinoma with micropapillary features

Delaware (Armed Forces Medical Examiner System) - High grade urothelial carcinoma

Georgia, Atlanta - Invasive urothelial carcinoma with focal micropapillary growth

Illinois (Heartland Regional Medical Center) - Urothelial carcinoma, high grade, micropapillary type  
Illinois (Northwestern University) - Micropapillary urothelial carcinoma  
Illinois, Oak Brook - Invasive high grade urothelial carcinoma  
Maryland (University of Maryland) - Invasive high grade urothelial carcinoma, with micropapillary features  
Michigan (University of Michigan) - Invasive high grade urothelial carcinoma with micropapillary features  
Ohio (The University of Toledo Medical Center) - Urothelial cell carcinoma, micropapillary type  
Oregon (Oregon Health Science University) - Invasive urothelial carcinoma, micropapillary variant  
Puerto Rico (University of Puerto Rico) - Infiltrating urothelial carcinoma, high grade  
Tennessee (Wake Forest University) - High grade urothelial carcinoma with micropapillary features  
Texas (Anderson Cancer Center) - High grade urothelial carcinoma/sarcomatous carcinoma  
Texas, Lubbock - Invasive high grade urothelial carcinoma  
Wisconsin (Medical Assessment & Cons., S.C.) - Invasive high grade papillary urothelial carcinoma  
Australia (Royal Prince Alfred Hospital) - Invasive urothelial carcinoma with micropapillary component  
Australia (St Vincent's Hospital, Sydney) - High grade urothelial carcinoma with micropapillary features  
Canada (Pasqua Hospital) - Urothelial carcinoma with micropapillary areas  
Canada (Royal Alexandra Hospital) - High grade urothelial carcinoma with micropapillary component  
Ireland (Connelly Hospital) - Carcinoma with squamous differentiation  
Japan (Asahi General Hospital) - Giant cell urothelial carcinoma  
Japan (University of Yamanashi) - Urothelial carcinoma, high grade  
Saudi Arabia (King Khalid University Hospital) - High grade and invasive urothelial carcinoma with lymphovascular invasion  
United Kingdom (John Radcliffe Hospital) - High grade urothelial carcinoma with micropapillary differentiation

#### **Case 7 - Diagnosis:**

High grade urothelial carcinoma with micropapillary features, bladder

#### **Case 7 - References:**

Micropapillary carcinoma: new variant of prostatic acinar adenocarcinoma.

*Arch Pathol Lab Med* 2012; Nov;136(11): p1447-50.

Mneimneh WS; Linos K, et al.

Emerging concepts in micropapillary urothelial carcinoma.

*Adv Anat Pathol* 2010; May;17(3): p182-6.

Watts KE; Hansel DE

Outcomes following radical cystectomy for micropapillary bladder cancer versus pure urothelial carcinoma: a matched cohort analysis.

*World J Urol* 2012; Dec;30(6): p801-6.

Wang JK; Boorjian SA, et al.

Micropapillary carcinoma of the urothelial tract. A clinicopathologic study of 38 cases.

*Ann Diagn Pathol* 2005; Feb;9(1): p1-5.

Alvarado-Cabrero I; Sierra-Santesteban FI, et al.

Micropapillary variant of urothelial carcinoma of the urinary bladder; a clinicopathological and immunohistochemical study.

*Histopathology* 2004; Jul;45(1): p55-64.

Samaratunga H; Khoo K.

Micropapillary component of urothelial carcinoma detected in transurethral resection of bladder tumor (TUR-BT) tissues: a case report.

*Med Mol Morphol* 2008; Jun;41(2): p113-6.

Ohtsuki Y; Ochi K, et al.

**Case No. 8, Accession No. 25059**

**March 2014**

Glendale - Carcinosarcoma

Delaware (Armed Forces Medical Examiner System) - High grade urothelial carcinoma

Georgia, Atlanta - Invasive urothelial carcinoma with sarcomatoid (rhabdomyoblastic) change

Illinois (Heartland Regional Medical Center) - Urothelial carcinoma, high grade, sarcomatoid type  
Illinois (Northwestern University) - Carcinosarcoma with heterologous elements  
Illinois, Oak Brook - Urothelial carcinoma  
Maryland (University of Maryland) - Sarcomatoid carcinoma with heterologous features  
Michigan (University of Michigan) - Invasive high grade urothelial carcinoma with sarcomatoid and squamous differentiation  
Ohio (The University of Toledo Medical Center) - Carcinosarcoma  
Oregon (Oregon Health Science University) - Sarcomatoid carcinoma  
Puerto Rico (University of Puerto Rico) - Carcinosarcoma  
Tennessee (Wake Forest University) - Carcinosarcoma  
Texas (Anderson Cancer Center) - Sarcomatoid carcinoma  
Texas, Lubbock - Invasive high grade urothelial carcinoma  
Wisconsin (Medical Assessment & Cons., S.C.) - Carcinosarcoma  
Australia (Royal Prince Alfred Hospital) - Carcinosarcoma with rhabdomyosarcomatous differentiation  
Australia (St Vincent's Hospital, Sydney) - Carcinosarcoma  
Canada (Pasqua Hospital) - Carcinosarcoma  
Canada (Royal Alexandra Hospital) - Sarcomatoid carcinoma  
Ireland (Connolly Hospital) - Carcinosarcoma  
Japan (Asahi General Hospital) - Rhabdomyosarcoma  
Japan (University of Yamanashi) - Carcinosarcoma  
Saudi Arabia (King Khalid University Hospital) - Carcinosarcoma (sarcomatoid carcinoma) with rhabdomyoblastic differentiation  
United Kingdom (John Radcliffe Hospital) - Carcinosarcoma

#### **Case 8 - Diagnosis:**

Carcinosarcoma with rhabdomyoblastic features, bladder

#### **Case 8 - References:**

Mesenchymal tumours of the bladder and prostate: an update.  
*Pathology* 2013; Feb;45(2): p104-15.  
 Tavora F; Kryvenko ON; Epstein JI.

Differences in survival among patients with sarcomatoid carcinoma, carcinosarcoma and urothelial carcinoma of the bladder.  
*J Urol* 2007; Dec;178(6): p2302-6; discussion 2307.  
 Wright JL; Black PC, et al.

Carcinosarcoma of urinary bladder mimicking vesical calculus: a case report.  
*Indian J Pathol Microbiol* 2007; Oct;50(4): p833-5.  
 Nada R; Awasthi A, et al.

Biphasic and monophasic sarcomatoid carcinoma of the urinary bladder.  
*Can J Urol* 2008; Jun;15(3): p4106-8.  
 Matsuoka Y; Hirokawa M, et al.

#### **Case No. 9, Accession No. 31532**

**March 2014**

Glendale - Oncocytoma  
Delaware (Armed Forces Medical Examiner System) - Oncocytoma  
Georgia, Atlanta - Renal oncocytoma  
Illinois (Heartland Regional Medical Center) - Oncocytoma  
Illinois (Northwestern University) - Oncocytoma  
Illinois, Oak Brook - Oncocytoma  
Maryland (University of Maryland) - Oncocytoma  
Michigan (University of Michigan) - Oncocytoma  
Ohio (The University of Toledo Medical Center) - Oncocytoma  
Oregon (Oregon Health Science University) - Renal cell carcinoma, chromophobe type

Puerto Rico (University of Puerto Rico) - Oncocytoma  
Tennessee (Wake Forest University) - Oncocytoma  
Texas (Anderson Cancer Center) - Oncocytoma carcinoma  
Texas, Lubbock - Renal carcinoma, oncocytic type  
Wisconsin (Medical Assessment & Cons., S.C.) - Oncocytoma  
Australia (Royal Prince Alfred Hospital) - Oncocytoma  
Australia (St Vincent's Hospital, Sydney) - Oncocytoma favored  
Canada (Pasqua Hospital) - Oncocytoma  
Canada (Royal Alexandra Hospital) - Oncocytoma  
Ireland (Connelly Hospital) - Oncocytoma  
Japan (Asahi General Hospital) - Oncocytoma  
Japan (University of Yamanashi) - Oncocytoma  
Saudi Arabia (King Khalid University Hospital) - Oncocytoma  
United Kingdom (John Radcliffe Hospital) - Oncocytoma

#### **Case 9 - Diagnosis:**

Oncocytoma, kidney

#### **Case 9 - References:**

Oncocytoma of the kidney.

*J Urol* 2012; May;187(5): p1854-5.

Humphrey PA

Renal oncocytoma revisited: a clinicopathological study of 109 cases with emphasis on problematic diagnostic features.

*Histopathology* 2010; Dec;57(6): p893-906.

Trpkov K; Yilmaz A, et al.

Mucin-producing renal oncocytoma. An undescribed variant of oncocytoma.

*Pathol Res Pract* 2011; Apr 15;207(4): p271-4.

Val-Bernal JF; Val D; Garijo MF

Oncocytoma of the kidney with prominent intracytoplasmic lumina.

*Ann Diagn Pathol* 2011; Dec;15(6): p485-9.

Lau SK; Cohen AH; Luthringer DJ.

A new translocation between chromosomes 6 and 9 helps to establish diagnosis of renal oncocytoma.

*Ann Diagn Pathol* 2011; Aug;15(4): p278-81.

Hudacko R; May M; Aviv H.

#### **Case No. 10, Accession No. 31600**

**March 2014**

Glendale - Chromophobe cell carcinoma  
Delaware (Armed Forces Medical Examiner System) - Clear cell renal cell carcinoma  
Georgia, Atlanta - Clear cell/conventional renal cell carcinoma  
Illinois (Heartland Regional Medical Center) - Renal cell carcinoma, clear cell, Fuhrman grade 3  
Illinois (Northwestern University) - Translocation associated carcinoma (rule out angiomyolipoma)  
Illinois, Oak Brook - Renal cell carcinoma, clear cell type  
Maryland (University of Maryland) - Eosinophilic variant of clear cell renal cell carcinoma  
Michigan (University of Michigan) - Clear cell renal cell carcinoma  
Ohio (The University of Toledo Medical Center) - Clear cell renal cell carcinoma, grade II-III type  
Oregon (Oregon Health Science University) - Clear cell carcinoma  
Puerto Rico (University of Puerto Rico) - Clear cell carcinoma, grade 2  
Tennessee (Wake Forest University) - Chromophobe renal cell carcinoma  
Texas (Anderson Cancer Center) - Renal cell carcinoma  
Texas, Lubbock - Renal cell carcinoma, clear cell type  
Wisconsin (Medical Assessment & Cons., S.C.) - Renal cell carcinoma, clear cell type  
Australia (Royal Prince Alfred Hospital) - Clear cell renal cell carcinoma

Australia (St Vincent's Hospital, Sydney) - Translocation (Xp11); associated renal cell carcinoma  
Canada (Pasqua Hospital) - Translocation carcinoma  
Canada (Royal Alexandra Hospital) - Translocation renal cell carcinoma  
Ireland (Connelly Hospital) - Chromophobe carcinoma  
Japan (Asahi General Hospital) - Clear cell renal cell carcinoma  
Japan (University of Yamanashi) - Clear cell carcinoma  
Saudi Arabia (King Khalid University Hospital) - Renal cell carcinoma, conventional (clear) cell type  
United Kingdom (John Radcliffe Hospital) - Clear cell renal cell carcinoma

**Case 10 - Diagnosis:**

Renal cell carcinoma, clear cell type, kidney

**Case 10 - References:**

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