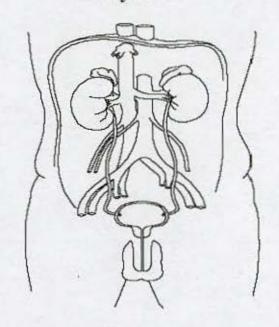


# "GENITOURINARY PATHOLOGY"

Study Cases, Subscription B

May 2003



California Tumor Tissue Registry
c/o: Department of Pathology and Human Anatomy
Loma Linda University School of Medicine
11021 Campus Avenue, AH 335
Loma Linda, California 92350
(909) 558-4788

FAX: (909) 558-0188 E-mail: cttr@linkline.com

Web site & Case of the Month: www.cttr.org

#### Target audience:

Practicing pathologists and pathology residents.

#### Goal:

To acquaint the participant with the histologic features of a variety of benign and malignant neoplasms and tumor-like conditions.

## Objectives:

The participant will be able to recognize morphologic features of a variety of benign and malignant neoplasms and tumor-like conditions and relate those processes to pertinent references in the medical literature.

#### Educational methods and media:

Review of representative glass slides with associated histories. Feedback on consensus diagnoses from participating pathologists. Listing of selected references from the medical literature.

#### Principal faculty:

Weldon K. Bullock, MD Donald R. Chase, MD

#### CME Credit:

Loma Linda University School of Medicine designates this continuing medical education activity for up to 2 hours of Category I of the Physician's Recognition Award of the American Medical Association.

CME credit is offered for the subscription year only.

#### Accreditation:

Loma Linda University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. Contributor: LLUMC Pathology Group (drc)

Loma Linda, CA

Case No. 1 - May 2003

Case No. 2 - May 2003

Tissue from: Kidney Accession #29378

# Clinical Abstract:

This 73-year-old male experienced mild pain in his right flank and had hematuria for over two years prior to admission. CT results revealed a renal mass. A right radical nephrectomy was performed.

# Gross Pathology:

The  $14.5 \times 10.5 \times 10.0$  cm kidney was mostly occupied by a 12 cm diameter tumor that had pink and yellow nodules with interspersed foci of necrosis and hemorrhage. The tumor extended through the capsule into the perinephric fat.

Contributor: Philip G. Robinson, M.D.

Boynton Beach, FL

Tissue from: Kidney Accession #28962

# Clinical Abstract:

At 83 years of age, this female was found to have a right renal mass and underwent a right radical nephrectomy.

# Gross Pathology:

Within the upper pole of the kidney was a 7.2 x 4.5 x 5.2 cm pale tan lobulated tumor. Cut section showed the tumor infiltrated into Gerota's fascia and into the renal vein. Adjacent to the main mass were nodules of pale tan tumor that were separate from the main tumor.

Contributor: Robert J Rosser, M.D.

Palm Springs, CA

Case No. 3 - May 2003

Tissue from: Kidney

Accession #29341

# Clinical Abstract:

Work-up of this 82-year-old male for gross hematuria and pain in the right flank included a CT scan of the abdomen and pelvis, which found a mass in the right kidney. A right radical nephrectomy was performed.

# Gross Pathology:

The 600 gram,  $16.0 \times 11.0 \times 8.0$  cm right radical nephrectomy specimen had a  $6.0 \times 5.0 \times 5.0$  cm region of pallor in the upper pole, with a slightly bulging architecture.

Contributor: Jack Leissring, M.D.

Case No. 4 - May 2003

Santa Rosa, CA

Tissue from: Kidney

Accession #27576

# Clinical Abstract:

During work-up for marked anemia, this 51-year-old female was found to have microscopic hematuria. Ultrasound showed a solid right renal mass, confirmed by CT scan. A right radical nephrectomy was performed.

# Gross Pathology:

The 240 gram nephrectomy specimen included a 5.5 x 4.8 x 4.2 cm well circumscribed bright yellow mass in the upper pole.

# SPECIAL STUDIES:

Keratin positive Vimentin positive EMA positive Contributor: Albert Garib, M.D.

Huntington Beach, CA

Case No. 7 - May 2003

Tissue from: Testicle

Accession #27907

# Clinical Abstract:

This 32-year-old male had a six month history of a mass in his left testicle.

# Gross Pathology:

The 7.5 x 5.0 x 5.0 cm testicle had a 4.5 cm hemorrhagic, oval, friable yellowish mass.

Contributor: William Illig, M.D.

Case No. 8 - May 2003

Tulsa, Ok

Tissue from: Testicle

Accession #28178

# Clinical Abstract:

At age 3, this 39-year-old male underwent right orchipexy and right inguinal hernia repair. He was lost to follow-up until age 37, when he complained of a painless enlarged testicle. Two years later, because of increasing discomfort, he underwent orchiectomy.

# Gross Pathology:

The 506 gram 12.0 x 9.0 x 8.0 cm orchectomy and hydrocele specimen showed replacement of the entire testicle by a golden yellow tan tumor with focal cystic areas.

Contributor: Dorothy Tatter, M.D.

Eos Angeles, CA

Accession #19796

Case No. 9 - May 2003

Case No. 10 - May 2003

Tissue from: Prostate

# Clinical Abstract:

The 87-year-old male was admitted due to deteriorating health and vomiting black material. He was found to have complete urethral obstruction and a suprapubic catheter was placed. He expired two days after admission.

# Gross Pathology:

At autopsy, the prostate was extensively infiltrated by multiple white, confluent nodules of tumor which also involved bladder, seminal vesicles and adjacent colon.

SPECIAL STUDIES

CAM5.2

positive

Contributor: W. E. Caroll, M.D.

Santa Barbara, CA

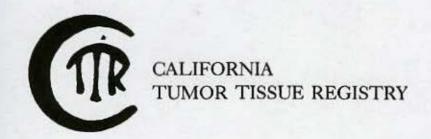
Tissue from: Prostate Accession #19173

Clinical Abstract:

After developing acute urinary retention, this 56-year-old male underwent prostectomy. At surgery, 'large globs' of mucus were noted but there was no demonstrable connection with the rectum.

Gross Pathology:

The 32 gram, 3.8 x 3.3 x 2.5 cm specimen consisted of multiple firm hemorrhagic tan-pink tissue fragments with attached mucoid material.



# "GENITOURINARY PATHOLOGY"

Minutes - Subscription B

May, 2003



# SUGGESTED READING (General Topics from Recent Literature):

- Molecular Characterization of Soft Tissue Tumours: A Gene Expression Study. Nielsen TO, West RB, Linn SC, et al. Lancet, 2002 Apr 13; 359(9314):1301-7.
- Cytologic Criteria for Well-Differentiated Adenocarcinoma of the Pancreas in Fine-Needle Aspiration Biopsy Specimens. Lin F, Staerkel G. Cancer Cytopathol, 2003; 99 (Feb 25):44-50.
- Colorectal Cancer Screening and Surveillance: Clinical Guidelines and Rationale Update Based on New Evidence. Winawer S, Fletcher R, et al. *Gastroenterology*, 2003; 124 (Feb):544-60.
- Immunohistochemical Expression of CK20, p53, and Ki-67 as Objective Markers of Urothelial Dysplasia. Mallofre C, Castillo M, et al. Mod Pathol, 2003; 16:187-91.
- Should the Diagnosis of Benign Prostatic Hyperplasia Be Made on Prostate Needle Biopsy? Viglione MP, Potter S, et al. Hum Pathol, 2002; 33(8):796-800.

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## FILE DIAGNOSES

CTTR Subscription B

May, 2003

Case 1:

Renal cell carcinoma, conventional (clear cell type), kidney T-71000, M-83123

Case 2:

Renal cell carcinoma (NOS), kidney T-71000, M-83123

Case 3:

Renal cell carcinoma, collecting duct type ("Bellini duct carcinoma"), kidney T-71000, M-83123

Case 4:

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

Case 5:

Adenomatoid tumor, paratesticular T-78000, M-90540

Case 6:

Malignant mixed germ cell tumor, mostly embryonal carcinoma, with a minor seminoma component, testis

T-78000, M-81533

Case 7:

Seminoma, classic type, testis T-78000, M-90613

Case 8:

Granulosa cell tumor, adult type, testis T-78000, M-86203

Case 9:

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

Case 10:

Mucinous ("colloid") adenocarcinoma, prostate T-77100, M-84803 Escondido - Clear cell renal cell carcinoma, grade II

Glendale (Glendale Pathology Association) - Renal cell carcinoma, clear cell type

Loma Linda - Renal cell carcinoma (clear cell type)

Orange (UCI Medical Center Residents) - Clear cell renal cell carcinoma, Grade 1, kidney

San Diego (Naval Medical Center) - Conventional (clear cell) renal cell carcinoma

Alabama, Birmingham - Renal cell carcinoma, clear cell type, Grade II/III

Arizona (Phoenix Memorial Hospital) - Renal cell carcinoma

Arkansas, Little Rock - Renal cell carcinoma, clear cell type, Grade 3

Colorado, Denver - Renal cell carcinoma

Florida (Winter Haven Hospital) - Renal cell carcinoma

Florida, Ocala - Renal cell carcinoma, clear cell

Georgia, Decatur - Renal cell carcinoma, clear cell (conventional) type

Illinois (Heartland Regional Medical Center) - Renal cell carcinoma, conventional (clear cell type), Fuhrman Grade 2

Illinois (Sarah Bush Lincoln Health Center) - Renal cell carcinoma, clear cell type

Indiana, Fort Wayne - Clear cell adenocarcinoma, right kidney

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

Kansas (Kansas University Medical Center) - Renal cell carcinoma, clear cell type, Fuhrman nuclear Grade 3

Louisiana (Louisiana State University Health Science Center) - Clear cell chromophobe carcinoma of kidney

Louisiana, Metairie - Renal cell carcinoma (clear cell type)

Maryland (National Naval Medical Center) - Renal cell carcinoma, clear cell type (9)

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

Michigan (Spectrum Health) - Renal cell carcinoma, clear cell

Michigan (St. Joseph Mercy Hospital) - Renal cell carcinoma, clear cell type

Michigan (St. Mary's Hospital) - Clear cell renal cell carcinoma

Nebraska (Good Samaritan Hospital) - Renal cell carcinoma, clear cell type

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

New York (Westchester Medical Center) - Renal cell carcinoma, clear cell type, Fuhrman Grade 2

Ohio (Medical College of Ohio) - Renal cell carcinoma, clear cell type

Ohio, Columbus - Renal cell carcinoma, clear cell type

Pennsylvania (Allegheny General Hospital) - Conventional (clear cell) renal cell carcinoma

Pennsylvania (Magee Women's Hospital) - Renal cell carcinoma, Grade 2

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

Pennsylvania, Pittsburgh - Renal cell carcinoma, conventional clear cell type

Rhode Island, Barrington - Renal cell carcinoma, clear cell type

Texas (Scott & White Hospital) - Renal cell carcinoma, clear cell type

Texas, Houston - Renal cell carcinoma, clear cell variant

Texas, Lubbock - Renal cell carcinoma, clear cell type

Texas, San Antonio - Clear cell renal cell carcinoma, Grade 3/4

Washington, D.C. - Clear cell carcinoma

Canada (CUSI, Site Fleurimont) - Clear cell renal cell carcinoma

Canada (University of Calgary, Foothills Hospital) - Renal cell carcinoma, conventional type

Japan (Hamamatsu University School of Medicine) - Renal clear cell carcinoma

Japan (Gunma University Hospital) - Clear cell adenocarcinoma

Japan (Saiscikai Shiga Hospital) - Renal cell carcinoma, clear cell type

Japan (Shimada City Hospital) - Renal cell carcinoma, clear cell type

Japan, Chiba - Renal cell carcinoma, clear cell type

Puerto Rico (University of Puerto Rico) - Renal cell carcinoma - clear cell type

Qatar, Doha - Renal cell carcinoma - Classic clear cell type

Spain (Povisa) - Clear renal cell carcinoma + adenoma

#### Case 1 - Diagnosis:

Renal cell carcinoma, conventional (clear cell type), kidney T-71000, M-83123

#### Case 1 - References:

Wilhelm M, Veltman JA, Olshen AB, et al: Array-Based Comparative Genomic Hybridization For the Differential Diagnosis of Renal Cell Cancer. Cancer Res, 2002 Feb 15; 62(4):957-60.

Moch H, Glasser T, Amin Mb, et al: Prognostic Utility of the Recently Recommended Histologic Classification and Revised TNM Staging System of Renal Cell Carcinoma: A Swiss Experience With 588 Tumors. Cancer, 2000 Aug 1; 89(3):604-14.

Kraus S, Abel PD, Nachtmann C, et al: MUC1 Mucin and Trefoli Factor-1 Protein Expression In Renal Cell Carcinoma: Correlation With Prognosis. Hum Pathol, 2002 Jan; 33(1):60-7.

Storkel S, Eble JN, Adlakha K, et al: Classification of Renal Cell Carcinoma: Work Group No. 1. Union Internationale Contre Le Cancer (UICC) and the American Joint Committee On Cancer (AJCC). Cancer, 1997 Sep 1; 80(5):987-9.

## Case No. 2, Accession No. 28962

May, 2003

Escondido - Renal cell carcinoma, grade III

Glendale (Glendale Pathology Association) - Renal cell carcinoma

Loma Linda - Renal cell carcinoma (granular cell type)

Orange (UCI Medical Center Residents) - Renal cell carcinoma, kidney

San Diego (Naval Medical Center) - Grade IV renal cell carcinoma (conventional RCC)

Alabama, Birmingham - Renal cell carcinoma, granular cell type, Grade III/III

Arizona (Phoenix Memorial Hospital) - Chromophobe renal cell carcinoma, cosinophilic variant

Arkansas, Little Rock - Renal cell carcinoma, unclassified

Colorado, Denver - Renal cell carcinoma

Florida (Winter Haven Hospital) - Collecting duct carcinoma

Florida, Ocala - Renal cell carcinoma, chromophobe type

Georgia, Decatur - Renal cell carcinoma, unclassified

Illinois (Heartland Regional Medical Center) - Renal cell carcinoma, conventional type, Fuhrman Grade 4

Illinois (Sarah Bush Lincoln Health Center) - Renal cell carcinoma, high grade

Indiana, Fort Wayne - Chromophobe carcinoma, right kidney

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

Kansas (Kansas University Medical Center) - Renal cell carcinoma, NOS, nuclear grade IV/IV

Louisiana (Louisiana State University Health Science Center) - Chromophobe carcinoma, granular cell type

Louisiana, Metairie - Chromophobe renal cell carcinoma

Maryland (National Naval Medical Center) - Renal cell carcinoma, granular cell type (9)

Maryland (University of Maryland Medical System) - Chromophobe renal cell carcinoma

Michigan (Spectrum Health) - Renal cell carcinoma, chromophobe

Michigan (St. Joseph Mercy Hospital) - Renal cell carcinoma, chromophobe type

Michigan (St. Mary's Hospital) - Granular cell renal carcinoma

Nebraska (Good Samaritan Hospital) - Renal cell carcinoma, granular cell type

New York (Nassau University Medical Center) - Chromophobe renal cell carcinoma

New York (Westchester Medical Center) - Renal cell carcinoma, granular cell type

Ohio (Medical College of Ohio) - Renal cell carcinoma, chromophobe type

Ohio, Columbus - Renal cell carcinoma, granular cell type

Pennsylvania (Allegheny General Hospital) - Conventional renal cell carcinoma, granular cell type

Pennsylvania (Magee Women's Hospital) - Renal cell carcinoma, Grade 4

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

Pennsylvania, Pittsburgh - RCC (Renal cell carcinoma), unclassified, with focal sarcomatoid differentiation

Rhode Island, Barrington RCC (Renal cell carcinoma), chromophobe type

Texas (Scott & White Hospital) - High grade carcinoma, favor renal cell carcinoma

Texas, Houston - Medullary carcinoma, kidney

Texas, Lubbock - Renal cell carcinoma, oncocytic type

Texas, San Antonio - Malignant epithelioid tumor, [illegible] vs. RCC (renal cell carcinoma), sarcomatoid

Washington, D.C. - Renal cell carcinoma, chromophobe type

Canada (CUSI, Site Fleurimont) - Chromophobe renal cell carcinoma

Canada (University of Calgary, Foothills Hospital) - Renal cell carcinoma, granular cell type (high grade)

Japan (Hamamatsu University School of Medicine) - Granular cell carcinoma

Japan (Gunma University Hospital) - Renal cell carcinoma, granular cell type

Japan (Saiseikai Shiga Hospital) - Renal cell carcinoma, granular cell type

Japan (Shimada City Hospital) - Renal cell carcinoma, granular cell type

Japan, Chiba - Renal cell carcinoma, chromophobe type

Puerto Rico (University of Puerto Rico) - Renal cell carcinoma - granular cell type

Qatar, Doha - Renal cell carcinoma - high grade

Spain (Povisa) - Granular renal cell carcinoma

#### Case 2 - Diagnosis:

Renal cell carcinoma (NOS), kidney T-71000, M-83123

## Director's Note: Focal sarcomatoid regions were also seen, but were present in only a few study sets. (drc)

Case 2 - References:

Fuhrman SA, Lasky LC, Limas C: Prognostic Significance of Morphologic Parameters In Renal Cell Carcinoma. Am J Surg Pathol, 1982 Oct; 6(7):655-63.

Barker AS, Cerhan JR, Lynch CF, et al: Gender, Alcohol Consumption, and Renal Cell Carcinoma. Am J Epidemiol, 2002 Mar 1; 155(5):455-62.

Krishnan B, Truong LD: Renal Epithelial Neoplasms: The Diagnostic Implications of Electron Microscopic Study in 55 Cases. Human Pathol, 2002 Jan; 33(1):68-79.

Lohse CM, Blute ML, Zincke H, et al: Comparison of Standardized and Non-Standardized Nuclear Grade of Renal Cell Carcinoma to Predict Outcome Among 2,042 patients. Am J Clin Pathol, 2002 Dec; 118(6):877-86.

Junker K, Thrum K, Schlichter A, et al: Clonal Origin of Multifocal Renal Cell Carcinoma As Determined by Microsatellite Analysis. J Urol, 2002 Dec; 168(6):2632-6.

Frank I, Blute ML, Cheville JC, et al: An Outcome Prediction Model For Patients With Clear Cell Renal Cell Carcinoma Treated With Radical Nephrectomy Based on Tumor Stage, Size, Grade and Necrosis: The SSIGN Score. J Urol, 2002 Dec; 168(6):2395-400.

## Case No. 3, Accession No. 29341

May, 2003

Escondido - Transitional cell carcinoma, grade III, infiltrating renal parenchyma

Glendale (Glendale Pathology Association) - Collecting duct carcinoma

Loma Linda - Renal cell carcinoma (granular cell - high grade)

Orange (UCI Medical Center Residents) - Urothelial cell carcinoma, high grade, kidney

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

Alabama, Birmingham - Invasive transitional cell carcinoma, Grade III/III

Arizona (Phoenix Memorial Hospital) - Squamous cell carcinoma, high grade

Arkansas, Little Rock - Transitional cell carcinoma, high grade, kidney

Colorado, Denver - Transitional cell carcinoma

Florida (Winter Haven Hospital) - Transitional cell carcinoma

Florida, Ocala - Transitional cell carcinoma, high grade

Georgia, Decatur - Collecting duct carcinoma, rule out transitional cell carcinoma

Illinois (Heartland Regional Medical Center) - Transitional cell carcinoma, Grade 3, with extensive renal invasion

Illinois (Sarah Bush Lincoln Health Center) - Transitional cell carcinoma, high grade

Indiana, Fort Wayne - Medullary carcinoma, right kidney

Kansas (Coffeyville Regional Medical Center) - Transitional cell (focal squamoid change) carcinoma, renal pelvis

Kansas (Kansas University Medical Center) - Transitional cell carcinoma, high grade

Louisiana (Louisiana State University Health Science Center) - Invasive high grade transitional cell carcinoma

Louisiana, Metairie - Transitional cell carcinoma

<u>Maryland (National Naval Medical Center)</u> - Transitional cell carcinoma, high grade (8); Combined transitional cell carcinoma, collecting duct carcinoma (1)

Maryland (University of Maryland Medical System) - Transitional cell carcinoma

Michigan (Spectrum Health) - Collecting duct carcinoma

Michigan (St. Joseph Mercy Hospital) - High grade transitional carcinoma

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

Nebraska (Good Samaritan Hospital) - High grade urothelial carcinoma

New York (Nassau University Medical Center) - Poorly-differentiated transitional cell carcinoma

New York (Westchester Medical Center) - Renal pelvic transitional cell carcinoma

Ohio (Medical College of Ohio) - High grade transitional cell carcinoma

Ohio, Columbus - Transitional cell carcinoma

Pennsylvania (Allegheny General Hospital) - Transitional cell carcinoma (Grade III/III)

Pennsylvania (Magee Women's Hospital) - Transitional cell carcinoma, poorly-differentiated

Pennsylvania (Memorial Medical Center) - Renal cell carcinoma, anaplastic

Pennsylvania, Pittsburgh - Collecting duct carcinoma

Rhode Island, Barrington - Invasive urothelial carcinoma, high grade

Texas (Scott & White Hospital) - Poorly-differentiated transitional cell carcinoma

Texas, Houston - Urothelial carcinoma, kidney

Texas, Lubbock - High grade transitional cell carcinoma

Texas, San Antonio - Collecting duct carcinoma

Washington, D.C. - Transitional cell carcinoma, poorly-differentiated

Canada (CUSI, Site Fleurimont) - Carcinoma of the renal pelvis, invasive

Canada (University of Calgary, Foothills Hospital) - High grade invasive urothelial carcinoma

Japan (Hamamatsu University School of Medicine) - Transitional cell carcinoma, infiltrating

Japan (Gunma University Hospital) - Collecting duct carcinoma

Japan (Saiseikai Shiga Hospital) - Poorly-differentiated squamous cell carcinoma

Japan (Shimada City Hospital) -- Transitional cell carcinoma, high grade

Japan, Chiba - Collecting duct carcinoma of kidney

Puerto Rico (University of Puerto Rico) - Angiosarcoma

Qatar, Doha - High grade transitional cell carcinoma with trophoblastic differentiation

Spain (Povisa) - Transitional cell carcinoma with squamous differentiation

## Case 3 - Diagnosis:

# Renal cell carcinoma, collecting duct type ("Bellini duct carcinoma"), kidney T-71000, M-83123

#### Case 3 - References:

Srigley JR, Eble JN: Collecting Duct Carcinoma of the Kidney. Semin Diagn Pathol, 1998 Feb; 15(1):54-67.

Bielsa O, Arango O, Corominas JM, et al: Collecting Duct Carcinoma of the Kidney. Br J Urol, 1994 Jul; 74(1):127-8.

Kennedy SM, Merino MJ, Linehan WM, et al: Collecting Duct Carcinoma of the Kidney. Hum Pathol, 1990 Apr; 21(4):449-56.

Chao D, Zisman A, Pantuck AJ, et al: Collecting Duct Renal Cell Carcinoma: Clinical Study of a Rare Tumor. J Urol, 2002 Jan; 167(1):71-4.

## Case No. 4, Accession No. 27576

May, 2003

Escondido - Spindle cell renal cell carcinoma, grade II

Glendale (Glendale Pathology Association) - Renal cell carcinoma, sarcomatoid type

Loma Linda - Renal cell carcinoma (sarcomatoid type)

Orange (UCI Medical Center Residents) - Renal cell carcinoma, sarcomatoid type, kidney

San Diego (Naval Medical Center) - Sarcomatoid renal cell carcinoma (RCC, unclassified)

Alabama, Birmingham - Renal cell carcinoma, sarcomatoid variant

Arizona (Phoenix Memorial Hospital) - Renal cell carcinoma, sarcomatoid type

Arkansas, Little Rock - Sarcomatoid renal cell carcinoma

Colorado, Denver - Sarcomatoid renal cell carcinoma

Florida (Winter Haven Hospital) - Sarcomatoid renal cell carcinoma

Florida, Ocala - Sarcomatoid renal cell carcinoma

Georgia, Decatur - Sarcomatoid renal cell carcinoma

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

Illinois (Sarah Bush Lincoln Health Center) - Transitional cell carcinoma, low grade

Indiana, Fort Wayne - Sarcomatoid renal cell carcinoma, right kidney

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

Kansas (Kansas University Medical Center) - Sarcomatoid renal cell carcinoma, nuclear grade IV/IV

Louisiana (Louisiana State University Health Science Center) - Sarcomatoid renal cell carcinoma

Louisiana, Metairie - Sarcomatoid renal cell carcinoma

Maryland (National Naval Medical Center) - Sarcomatoid renal cell carcinoma (9)

Maryland (University of Maryland Medical System) - Spindle cell pseudosarcomatoid carcinoma

Michigan (Spectrum Health) - Renal cell carcinoma, sarcomatoid

Michigan (St. Joseph Mercy Hospital) - Sarcomatoid renal cell carcinoma

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

Nebraska (Good Samaritan Hospital) - Renal cell carcinoma, sarcomatoid type

New York (Nassau University Medical Center) - Sarcomatoid renal cell carcinoma

New York (Westchester Medical Center) - Renal cell carcinoma, sarcomatoid type

Ohio (Medical College of Ohio) - Renal cell carcinoma with sarcomatoid features

Ohio, Columbus - Sarcomatoid carcinoma

Pennsylvania (Allegheny General Hospital) - Renal cell carcinoma, sarcomatoid type

Pennsylvania (Magee Women's Hospital) - Renal cell carcinoma with sarcomatoid features

Pennsylvania (Memorial Medical Center) - Renal cell carcinoma, papillary with sarcomatoid pattern

Pennsylvania, Pittsburgh - Sarcomatoid carcinoma

Rhode Island, Barrington - Collecting duct carcinoma

Texas (Scott & White Hospital) - Sarcomatoid renal cell carcinoma

Texas, Houston - Sarcomatoid carcinoma, kidney

Texas, Lubbock - Sarcomatoid renal cell carcinoma

Texas, San Antonio - Sarcomatoid RCC (renal cell carcinoma)

Washington, D.C. - Spindle cell carcinoma

Canada (CUSI, Site Fleurimont) - Sarcomatoid renal cell carcinoma

Canada (University of Calgary, Foothills Hospital) - Sarcomatoid renal cell carcinoma

Japan (Hamamatsu University School of Medicine) - TCC (transitional cell carcinoma), sarcomatoid

Japan (Gunma University Hospital) - Renal cell carcinoma, sarcomatoid

Japan (Saiseikai Shiga Hospital) - Sarcomatoid renal cell carcinoma

Japan (Shimada City Hospital) - Renal cell carcinoma, sarcomatoid type

Japan, Chiba - Sarcomatoid renal cell carcinoma

Puerto Rico (University of Puerto Rico) - Renal cell carcinoma - papillary type/sarcomatoid type

Qatar, Doha - Sarcomatoid renal cell carcinoma

Spain (Povisa) - Sarcomatoid renal cell carcinoma

#### Case 4 - Diagnosis:

## Sarcomatoid renal cell carcinoma, kidney T-71000, M-83123

#### Case 4 - References:

Dal Cin P, Sciot R, Van Poppel H, et al: Chromosome Changes in Sarcomatoid Renal Carcinomas Are Different From Those in Renal Cell Carcinomas. Cancer Genet Cytogenet, 2002 Apr 1; 134(1):38-40.

Cangiano T, Liao J, Naitoh J, et al: Sarcomatoid Renal Cell Carcinoma: Biologic Behavior, Prognosis, and Response to Combined Surgical Resection and Immunotherapy. J Clin Oncol, 1999 Feb; 17(2):523-8.

de Peralta-Venturina M, Moch H, Amin M, et al: Sarcomatoid Differentiation in Renal Cell Carcinoma: A Study of 101 Cases. Am J Surg Pathol, 2001 Mar; 25(3):275-84.

Mian BM, Bhadkamkar N, Slaton JW, et al: Prognostic Factors and Survival of Patients With Sarcomatoid Renal Cell Carcinoma. J. Urol, 2002 Jan; 167(1):65-70.

# Case No. 5, Accession No. 28063

May, 2003

Escondido - Adenomatoid tumor

Glendale (Glendale Pathology Association) - Adenomatoid tumor

Loma Linda - Testicle - Yolk sac tumor

Orange (UCI Medical Center Residents) - Adenomatoid tumor, testis

San Diego (Naval Medical Center) - Adenomatoid tumor

Alabama, Birmingham - Adenomatoid tumor

Arizona (Phoenix Memorial Hospital) - Adenomatoid tumor

Arkansas, Little Rock - Adenomatoid tumor, scrotum

Colorado, Denver - Paratesticular multicystic mass of Wolffian origin

Florida (Winter Haven Hospital) - Adenomatoid tumor

Florida, Ocala - Adenomatoid tumor

Georgia, Decatur - Adenomatoid tumor

Illinois (Heartland Regional Medical Center) - Adenomatoid tumor (benign mesothelioma)

Illinois (Sarah Bush Lincoln Health Center) - Adenomatoid tumor

Indiana, Fort Wayne - Adenomatoid tumor of left epididymis/testis

Kansas (Coffeyville Regional Medical Center) - Adenomatoid tumor

Kansas (Kansas University Medical Center) - Adenomatoid tumor

Louisiana (Louisiana State University Health Science Center) - Adenomatoid tumor

Louisiana, Metairie - Adenomatoid tumor

Maryland (National Naval Medical Center) - Adenomatoid tumor (9)

Maryland (University of Maryland Medical System) - Adenomatoid tumor

Michigan (Spectrum Health) - Adenomatoid tumor

Michigan (St. Joseph Mercy Hospital) - Adenomatoid tumor

Michigan (St. Mary's Hospital) - Adenomatoid tumor

Nebraska (Good Samaritan Hospital) - Adenomatoid tumor

New York (Nassau University Medical Center) - Adenomatoid tumor

New York (Westchester Medical Center) - Adenomatoid tumor

Ohio (Medical College of Ohio) - Adenomatoid tumor

Ohio, Columbus - Adenomatoid tumor

Pennsylvania (Allegheny General Hospital) - Adenomatoid tumor

Pennsylvania (Magee Women's Hospital) - Adenomatoid tumor

Pennsylvania (Memorial Medical Center) - Adenomatoid tumor

Pennsylvania, Pittsburgh - Adenomatoid tumor

Rhode Island, Barrington - Yolk sac tumor

Texas (Scott & White Hospital) - Adenomatoid tumor

Texas, Houston - Adenomatoid tumor, testis

Texas, Lubbock - Adenomatoid tumor

Texas, San Antonio - Adenomatoid tumor

Washington, D.C. - Adenomatoid tumor

Canada (CUSI, Site Fleurimont) - Adenomatoid tumor

Canada (University of Calgary, Foothills Hospital) - Adenomatoid tumor

Japan (Hamamatsu University School of Medicine) - Adenomatoid tumor

Japan (Gunma University Hospital) - Adenomatoid tumor

Japan (Saiseikai Shiga Hospital) - Adenomatoid tumor

Japan (Shimada City Hospital) - Adenomatoid tumor

Japan, Chiba - Adenomatoid tumor of scrotum

Puerto Rico (University of Puerto Rico) - Adenomatoid cystic tumor

Qatar, Doha - Adenomatoid tumor of epididymis (para-testicular)

Spain (Povisa) - Adenomatoid tumor

# Case 5 - Diagnosis:

Adenomatoid tumor, paratesticular T-78000, M-90540

## Case 5 - References:

Oyama H, Ogawa M, Mikuriya H, et al: Adenomatoid Tumor of Testicular Tunica Albuginea: A Case Report. Hinyokika Kiyo, 2001 Sept; 47(9):661-3.

Isotalo PA, Yazdi HM, Perkins DG, Mai KT: Immunohistochemical Evidence For Mesothelial Origin of Paratesticular Adenomatoid Tumour. Histopathology, 2000 Nov; 37(5):476-7.

Rege JD, Amarapurkar AD, Phatak AM: Fine Needle Aspiration Cytology of Adenomatoid Tumor: A Case Report. Acta Cytol, 1999 May-Jun; 43(3):495-7.

## Case No. 6, Accession No. 29003

May, 2003

Escondido - Embryonal carcinoma

Glendale (Glendale Pathology Association) - Seminoma

Loma Linda - Embryonal cell carcinoma, testicle

Orange (UCI Medical Center Residents) - Classical seminoma, testis

San Diego (Naval Medical Center) - Embryonal carcinoma

Alabama, Birmingham - Seminoma

Arizona (Phoenix Memorial Hospital) - Mixed germ cell tumor - seminoma, embryonal carcinoma, and yolk sac tumor

Arkansas, Little Rock - Embryonal carcinoma, testis

Colorado, Denver - Embryonal cell carcinoma with yolk sac features

Florida (Winter Haven Hospital) - Embryonal carcinoma

Florida, Ocala - Embryonal carcinoma

Georgia, Decatur - Seminoma with associated intra-tubular germ cell neoplasia

Illinois (Heartland Regional Medical Center) - Seminoma with areas of endodermal sinus tumor (yolk sac tumor)

Illinois (Sarah Bush Lincoln Health Center) - Embryonal carcinoma

Indiana, Fort Wavne - Seminoma with focal yolk sac neoplasm, testis (Intratubular germ cell neoplasia also present), mixed germ cell tumor

Kansas (Coffevville Regional Medical Center) - Embryonal carcinoma

Kansas (Kansas University Medical Center) - Embryonal carcinoma

Louisiana (Louisiana State University Health Science Center) - Classic seminoma and embryonal carcinoma

Louisiana, Metairie - Embryonal carcinoma

Maryland (National Naval Medical Center) - Embryonal carcinoma (9)

Maryland (University of Maryland Medical System) - Pure seminoma in our slide, when combining with immunohistochemical studies, it suggests a mixed germ cell tumor

Michigan (Spectrum Health) - Embryonal carcinoma

Michigan (St. Joseph Mercy Hospital) - Mixed malignant germ cell tumor

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

Nebraska (Good Samaritan Hospital) - Embryonal carcinoma

New York (Nassau University Medical Center) - Embryonal carcinoma

New York (Westchester Medical Center) - Typical seminoma with embryonal carcinoma, solid type

Ohio (Medical College of Ohio) - Embryonal carcinoma

Ohio, Columbus - Mixed germ cell tumor

Pennsylvania (Allegheny General Hospital) - Embryonal carcinoma

Pennsylvania (Magee Women's Hospital) - Embryonal carcinoma

Pennsylvania (Memorial Medical Center) - Embryonal carcinoma

Pennsylvania, Pittsburgh - Embryonal carcinoma

Rhode Island, Barrington - Embryonal carcinoma

Texas (Scott & White Hospital) - Mixed germ cell tumor, predominantly embryonal and yolk sac components

Texas, Houston - Embryonal carcinoma, testis

Texas, Lubbock - Anaplastic seminoma

Texas, San Antonio - Mixed GCT (germ cell tumor)

Washington, D.C. - Germ cell tumor, mixed

Canada (CUSI, Site Fleurimont) - Embryonal carcinoma

Canada (University of Calgary, Foothills Hospital) - Non-seminomatous germ cell tumor, intra-tubular germ cell neoplasia

Japan (Hamamatsu University School of Medicine) - Embryonal carcinoma

Japan (Gunma University Hospital) - Embryonal carcinoma

Japan (Saiseikai Shiga Hospital) - Mixed germ cell tumor (embryonal carcinoma, seminoma, yolk sac tumor)

Japan (Shimada City Hospital) - Seminoma

Japan, Chiba - Embryonal carcinoma of testis

Puerto Rico (University of Puerto Rico) - Mixed germ cell tumor (embryonal and endodermal sinus tumor)

Qatar, Doha - Malignant mixed germ cell tumor of testis (embryonal carcinoma with focal yolk sac component)

Spain (Povisa) - Embryonal carcinoma

#### Case 6 - Diagnosis:

Malignant mixed germ cell tumor, mostly embryonal carcinoma, with a minor seminoma component, Testis

T-78000, M-81533

Outside Consultation: Jose Diaz, M.D., H. Lee Moffitt Cancer Center and Research Institute: Embryonal Carcinoma

#### Case 6 - References:

Leroy X, Augusto D, Leteurte E, Gosselin B: CD30 and CD117 (c-kit) Used In Combination Are Useful For Distinguishing Embryonal Carcinoma From Seminoma. J Histochem Cytochem, 2002 Feb; 50(2):283-5.

Blough RI, Heerema NA, Albers P, Foster RS: Fluorescense In-Situ Hibridization On Nuclei From Paraffin-Embedded Tissue In Low Stage Pure Embroyonal Carcinoma of the Testis. J Urol, 1998 Jan; 159(1):240-4.

Sweeney C: History of Testicular Cancer Chemotherapy Maximizing Efficiency, Minimizing Toxicity. Semin Urol Oncol, 2001 Aug; 19(3):170-9. Review.

Moul JW, McCarthy WF, Fernandez EB, Sesterhem IA: Percentage of Embryonal Carcinoma And of Vascular Invasion Predicts Pathological Stage in Clinical Stage I Non-Seminomatous Testicular Cancer. Cancer Res, 1994 Jan 15; 54(2):362-4.

Rakheja D, Hoang MP, Sharma S, Albores-Saavedra J. Intratubular Embryonal Carcinoma. Arch Pathol Lab Med, 2002 Apr; 126(4):487-90.

## Case No. 7, Accession No. 27907

May, 2003

Escondido - Seminoma

Glendale (Glendale Pathology Association) - Seminoma

Loma Linda - Seminoma (seminiferous cell type)

Orange (UCI Medical Center Residents) - Classical seminoma, testis

San Diego (Naval Medical Center) - Seminoma

Alabama, Birmingham - Seminoma

Arizona (Phoenix Memorial Hospital) - Anaplastic seminoma

Arkansas, Little Rock - Seminoma, testis

Colorado, Denver - Seminoma

Florida (Winter Haven Hospital) - Embryonal carcinoma

Florida, Ocala - Seminoma

Georgia, Decatur - Seminoma with associated intra-tubular germ cell neoplasia

Illinois (Heartland Regional Medical Center) - Seminoma with extensive necrosis

Illinois (Sarah Bush Lincoln Health Center) - Seminoma, classic type

Indiana, Fort Wayne - Spermatocytic seminoma, left testis

Kansas (Coffeyville Regional Medical Center) - Seminoma

Kansas (Kansas University Medical Center) - Seminoma, classic

Louisiana (Louisiana State University Health Science Center) - Classic seminoma

Louisiana, Metairie - Classic seminoma

Maryland (National Naval Medical Center) - Seminoma (9)

Maryland (University of Maryland Medical System) - Seminoma

Michigan (Spectrum Health) - Seminoma

Michigan (St. Joseph Mercy Hospital) - Seminoma

Michigan (St. Mary's Hospital) - Seminoma

Nebraska (Good Samaritan Hospital) - Seminoma

New York (Nassau University Medical Center) - Classical seminoma

New York (Westchester Medical Center) - Anaplastic seminoma with necrosis

Ohio (Medical College of Ohio) - Anaplastic seminoma

Ohio, Columbus - Seminoma

Pennsylvania (Allegheny General Hospital) - Seminoma, classic type

Pennsylvania (Magee Women's Hospital) - Seminoma

Pennsylvania (Memorial Medical Center) - Seminoma

Pennsylvania, Pittsburgh - Anaplastic seminoma

Rhode Island, Barrington - Placental site trophoblastic tumor

Texas (Scott & White Hospital) - Seminoma, classic type

Texas, Houston - Seminoma, testis

Texas, Lubbock - Seminoma

Texas, San Antonio - Seminoma

Washington, D.C. - Seminoma

Canada (CUSI, Site Fleurimont) - Seminoma

Canada (University of Calgary, Foothills Hospital) - Seminoma

Japan (Hamamatsu University School of Medicine) - Seminoma

Japan (Gunma University Hospital) - Seminoma

Japan (Saiscikai Shiga Hospital) - Seminoma

Japan (Shimada City Hospital) - Seminoma

Japan, Chiba - Seminoma of testis

Puerto Rico (University of Puerto Rico) - Anaplastic seminoma

Qatar, Doha - Seminoma

Spain (Povisa) - Seminoma

#### Case 7 - Diagnosis:

Seminoma, classic type, testis T-78000, M-90613

#### Case 7 - References:

Livsey JE, Taylor B, Mobarek N, et al: Patterns of Relapse Following Radiotherapy For Stage 1 Seminoma of the Testis: Implications For Follow-Up. Clin Oncol (R. Coll Radiol), 2001; 13(4):296-300.

Florentine BD, Roscher AA, Garrett J, Warner NE: Necrotic Seminoma of the Testis: Establishing the Diagnosis With Masson Trichrome and Immunostains. Arch Pathol Lab Med. 2002 Feb; 126(2):205-6.

Nazeer T, Ro JY, Amato RJ, et al: Histologically Pure Seminoma With Elevated Alpha-Fetoprotein: A Clinicopathologic Study of Ten Cases. Oncol Rep, 1998 Nov-Dec; 5(6):1425-9.

Weissbach L, Bussar-Maatz R, Lohrs U, et al: Prognostic Factors In Seminomas With Special Respect to HCG: Results Of A Prospective Multicenter Study. Seminoma Study Group. Eur Urol, 1999 Dec; 36(6):601-8.

Vuky J, Tickoo SK, Sheinfeld J, et al: Salvage Chemotherapy For Patients With Advanced Pure Seminoma. J Clin Oncol, 2002 Jan 1; 20(1):297-301.

Ruther U, Dieckmann K, Bussar-Maatz R, Eisenberger F: Second Malignancies Following Pure Seminoma. Oncology, 2000; 8(1):75-82. Escondido - Sex-cord stromal tumor, unclassified

Glendale (Glendale Pathology Association) - Adult granulosa cell tumor

Orange (UCI Medical Center Residents) - Granulosa cell tumor, testis

San Diego (Naval Medical Center) - Granulosa cell tumor

Alabama, Birmingham - Granular cell tumor

Arizona (Phoenix Memorial Hospital) - Leydig cell tumor

Arkansas, Little Rock - Sex-cord stromal tumor, unclassified, testis

Colorado, Denver - Sex cord tumor

Florida (Winter Haven Hospital) - Sertoli cell tumor

Florida, Ocala - Mesothelioma

Georgia, Decatur - Sertoli cell tumor, not otherwise specified

Illinois (Heartland Regional Medical Center) - Granulosa cell tumor

Illinois (Sarah Bush Lincoln Health Center) - Granulosa cell tumor

Indiana, Fort Wayne - [illegible] pericytoma, testis vs. gonadal stromal tumor (spindle fibrogenic type), (fibroma) of testis

Kansas (Coffeyville Regional Medical Center) - Carcinoid tumor

Kansas (Kansas University Medical Center) - Mixed or unclassified gonadal stromal tumor

Louisiana (Louisiana State University Health Science Center) - Granulosa cell tumor

Louisiana, Metairie - Granulosa cell tumor

Maryland (National Naval Medical Center) - Sertoli cell tumor (5); Granulosa cell tumor (3); Sex cord stromal tumor, NOS (1)

Maryland (University of Maryland Medical System) - Sex-cord stromal tumor, unclassified

Michigan (Spectrum Health) - Granular cell tumor

Michigan (St. Joseph Mercy Hospital) - Malignant gonadal stromal tumor

Michigan (St. Mary's Hospital) - Granulosa cell tumor

Nebraska (Good Samaritan Hospital) - Granulosa cell tumor

New York (Nassau University Medical Center) - Granulosa cell tumor

New York (Westchester Medical Center) - Sertoli cell tumor (? Granulosa cell tumor)

Ohio (Medical College of Ohio) - Sex cord-stromal tumor, favor Granulosa cell tumor

Ohio, Columbus - Sex-cord stromal tumor

Pennsylvania (Allegheny General Hospital) - Granulosa cell tumor, adult type

Pennsylvania (Magee Women's Hospital) - Sex-cord stromal tumor, unclassified

Pennsylvania (Memorial Medical Center) - Granulosa cell tumor

Pennsylvania, Pittsburgh - Sex cord stromal tumor (? Granulosa/Leydig cell tumor)

Rhode Island, Barrington - Gonadal stromal tumor

Texas (Scott & White Hospital) - Sex cord stromal tumor

Texas, Houston - Hemangiopericytoma, testis

Texas, Lubbock - Granulosa cell tumor

Texas, San Antonio - Synovial sarcoma

Washington, D.C. - Granulosa cell tumor

Canada (CUSI, Site Fleurimont) - Granulosa cell tumor, adult type

Canada (University of Calgary, Foothills Hospital) - Granulosa cell tumor, adult type

Japan (Hamamatsu University School of Medicine) - Leydig cell tumor

Japan (Gunma University Hospital) - Granulosa cell tumor, adult form

Japan (Saiseikai Shiga Hospital) - Sex cord stromal tumor, not otherwise specified

Japan (Shimada City Hospital) -- Fibroma

Japan, Chiba - Granulosa cell tumor, adult type, of testis

Puerto Rico (University of Puerto Rico) - Granulosa cell tumor

Qatar, Doha - Granulosa cell tumor

Spain (Povisa) - Granulosa cell tumor

#### Case 8 - Diagnosis:

# Granulosa cell tumor, adult type, testis T-78000, M-86203

#### Case 8 - References:

Wang BY, Rabinowitz DS, Granato RC Sr, Unger PD: Gonadal Tumor With Granulosa Cell Tumor Features in An Adult Testis. Ann Diagn Pathol, 2002 Feb; 6(1):56-60.

Al-Bozom IA, El-Faqih SR, Hassan SH, et al: Granulosa Cell Tumor of the Adult Type: A Case Report and Review of the Literature Of A Very Rare Testicular Tumor. Arch Pathol Lab Med, 2000 Oct; 124(10):1525-8.

Van den Berghe I, Dal Cin P, De Groef K, et al: Monosomy 22 and Trisomy 14 May Be Early Events in the Tumorigenesis of Adult Granulosa Cell Tumor. Cancer Genet Cytogenet, 1999 Jul 1; 112(1):46-8. Ahmed E, Young RH, Scully RE: Adult Granulosa Cell Tumor of the Ovary With Foci of Hepatic Cell Differentiation: A Report of Four Cases and Comparison With Two Cases of Granulosa Cell Tumor With Leydig Cells. Am J Surg Pathol, 1999 Sep; 23(9):1089-93.

Fontanelli R, Stefanon B, Raspagliesi F, et al: Adult Granulosa Cell Tumor of the Ovary: A Clinicopathologic Study of 35 Cases. Tumori 1998 Jan-Feb; 84(1):60-4.

## Case No. 9, Accession No. 19796

May, 2003

Escondido - Neuroendocrine carcinoma

Glendale (Glendale Pathology Association) - Small cell carcinoma

Loma Linda - Prostatic duet carcinoma

Orange (UCI Medical Center Residents) - Neuroendocrine carcinoma, prostate

San Diego (Naval Medical Center) - Small cell carcinoma

Alabama, Birmingham - Sarcomatoid carcinoma

Arizona (Phoenix Memorial Hospital) - Prostatic duct adenocarcinoma

Arkansas, Little Rock - Small cell carcinoma, prostate

Colorado, Denver - High grade transitional cell carcinoma

Florida (Winter Haven Hospital) - Poorly-differentiated adenocarcinoma

Florida, Ocala - Small cell carcinoma

Georgia, Decatur - Small cell (neuroendocrine) carcinoma of prostate

Illinois (Heartland Regional Medical Center) - Small cell anaplastic carcinoma

Illinois (Sarah Bush Lincoln Health Center) - Small cell carcinoma of prostate

Indiana, Fort Wayne - Small cell carcinoma, prostate (neuroendocrine carcinoma)

Kansas (Coffeyville Regional Medical Center) - Poorly-differentiated adenocarcinoma

Kansas (Kansas University Medical Center) - Neuroendocrine carcinoma (small cell carcinoma)

Louisiana (Louisiana State University Health Science Center) - Small cell neuroendocrine carcinoma

Louisiana, Metairie - Poorly-differentiated adenocarcinoma

Maryland (National Naval Medical Center) - Small cell carcinoma (9)

Maryland (University of Maryland Medical System) - Poorly-differentiated carcinoma

Michigan (Spectrum Health) - Undifferentiated carcinoma

Michigan (St. Joseph Mercy Hospital) - Small cell carcinoma

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

Nebraska (Good Samaritan Hospital) - Small cell undifferentiated (neuroendocrine) carcinoma

New York (Nassau University Medical Center) - Small cell carcinoma versus transitional cell carcinoma of the prostate

New York (Westchester Medical Center) - Small cell carcinoma of prostate

Ohio (Medical College of Ohio) - Small cell undifferentiated carcinoma

Ohio, Columbus - Carcinoma, possible neuroendocrine carcinoma

Pennsylvania (Allegheny General Hospital) - Small cell carcinoma of prostate

Pennsylvania (Magee Women's Hospital) - Poorly-differentiated carcinoma with small cell features

Pennsylvania (Memorial Medical Center) - Poorly differentiated adenocarcinoma, prostate

Pennsylvania, Pittsburgh - Poorly-differentiated carcinoma with focal basaloid and neuroendocrine features

Rhode Island, Barrington - Invasive ductal carcinoma

Texas (Scott & White Hospital) - Small cell carcinoma

Texas, Houston - Transitional cell carcinoma, prostate

Texas, Lubbock - Small cell carcinoma

Texas, San Antonio - Small cell neuroendocrine carcinoma

Washington, D.C. - Small cell carcinoma

Canada (CUSI, Site Fleurimont) - Adenocarcinoma, Grade V

Canada (University of Calgary, Foothills Hospital) - Adenocarcinoma with neuroendocrine features

Japan (Hamamatsu University School of Medicine) - Poorly-differentiated adenocarcinoma

Japan (Gunma University Hospital) - Small cell carcinoma, prostate

Japan (Saiseikai Shiga Hospital) - Adenocarcinoma with neuroendocrine differentiation

Japan (Shimada City Hospital) - Small cell carcinoma

Japan, Chiba - Small cell carcinoma of prostate gland

Puerto Rico (University of Puerto Rico) - Prostatic transitional cell (urothelial carcinoma versus extension from bladder or urethra)

Qatar, Doha - Small cell carcinoma

Spain (Povisa) - Small cell carcinoma

#### Case 9 - Diagnosis:

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## Small cell carcinoma, prostate T-77100, M-80413

#### Case 9 - References:

Kim CJ, Kushima R, Okada Y, Seto A: Establishment and Characterization of a Prostatic Small-Cell Carcinoma Cell Line (PSK-1) Derived From A Patient With Klinefelter Syndrome. Prostate, 2000 Mar 1; 42(4):287-94.

Sano K, Miyai K, Yoshida S: Small Cell Carcinoma of the Prostate: A Case Report. Int J Urol, 1997 May; 4(3):321-3.

True LD, Buhler K, Quinn J, et al: A Neuroendocrine/Small Cell Prostate Carcinoma Xenograft-LuCaP 49. Am J Pathol, 2002 Aug; 161(2):705-15.

Di Saint'Agnese PA: Neuroendocrine Cells of the Prostate and Neuroendocrine Differentiation in Prostatic Carcinoma: A Review of Morphologic Aspects. Urology, 1998 May; 51(5A Suppl):121-4.

Mackey JR, Au HJ, Hugh J, Venner P: Genitourinary Small Cell Carcinoma: Determination of Clinical and Therapeutic Factors Associated With Survival. J Urol, 1998 May; 159(5):1624-9.

## Case No. 10, Accession No. 19173

May, 2003

Escondido - Urachal adenocarcinoma

Glendale (Glendale Pathology Association) - Mucinous carcinoma

Loma Linda - Mucinous adenocarcinoma of prostate

Orange (UCI Medical Center Residents) - Mucinous adenocarcinoma

San Diego (Naval Medical Center) - Mucinous (colloid) carcinoma

Alabama, Birmingham - Mucinous prostatic adenocarcinoma (signet cell type)

Arizona (Phoenix Memorial Hospital) - Mucinous adenocarcinoma

Arkansas, Little Rock - Mucinous adenocarcinoma, prostate

Colorado, Denver - Mucinous carcinoma

Florida (Winter Haven Hospital) - Colloid carcinoma

Florida, Ocala - Cystadenoma

Georgia, Decatur - Mucinous carcinoma, rule out metastasis

Illinois (Heartland Regional Medical Center) - Mucinous adenocarcinoma with signet-ring cells

Illinois (Sarah Bush Lincoln Health Center) - Mucinous adenocarcinoma

Indiana, Fort Wayne - Mucinous adenocarcinoma, prostate

Kansas (Coffeyville Regional Medical Center) - Mucinous adenocarcinoma

Kansas (Kansas University Medical Center) - Mucinous adenocarcinoma

Louisiana (Louisiana State University Health Science Center) - Mucin-producing adenocarcinoma

Louisiana, Metairie - Mucinous adenocarcinoma

Maryland (National Naval Medical Center) - Mucinous adenocarcinoma (9)

Maryland (University of Maryland Medical System) - Mucinous adenocarcinoma

Michigan (Spectrum Health) - Mucinous carcinoma

Michigan (St. Joseph Mercy Hospital) - Mucinous (colloid) carcinoma

Michigan (St. Mary's Hospital) - Mucinous adenocarcinoma

Nebraska (Good Samaritan Hospital) - Mucinous adenocarcinoma

New York (Nassau University Medical Center) - Mucinous adenocarcinoma

New York (Westchester Medical Center) - Mucinous adenocarcinoma of prostate

Ohio (Medical College of Ohio) - Mucinous carcinoma

Ohio, Columbus - Mucinous adenocarcinoma

Pennsylvania (Allegheny General Hospital) - Mucinous carcinoma of prostate, with signet-ring cell features

Pennsylvania (Magee Women's Hospital) - Mucinous adenocarcinoma

Pennsylvania (Memorial Medical Center) - Mucinous adenocarcinoma, prostate

Pennsylvania, Pittsburgh - Mucinous adenocarcinoma

Rhode Island, Barrington - Mucinous adenocarcinoma

Texas (Scott & White Hospital) - Mucinous adenocarcinoma, colloid carcinoma

Texas, Houston - Mucinous carcinoma, prostate

Texas, Lubbock - Mucinous adenocarcinoma

Texas, San Antonio - Mucinous (colloid) carcinoma

Washington, D.C. - Mucinous adenocarcinoma

Canada (CUSI, Site Fleurimont) - Mucinous carcinoma

Canada (University of Calgary, Foothills Hospital) - Mucinous adenocarcinoma of prostate

Japan (Hamamatsu University School of Medicine) - Mucinous carcinoma

Japan (Gunma University Hospital) - Mucinous adenocarcinoma, prostate

Japan (Saiseikai Shiga Hospital) - Mucinous carcinoma

Japan (Shimada City Hospital) - Mucinous adenocarcinoma

Japan, Chiba - Mucinous carcinoma of prostate gland

Puerto Rico (University of Puerto Rico) - Prostate mucinous adenocarcinoma

Qatar, Doha - Mucinous adenocarcinoma of prostate

Spain (Povisa) - Mucinous adenocarcinoma

## Case 10 - Diagnosis:

Mucinous ("colloid") adenocarcinoma, prostate T-77100, M-84803

#### Case 10 - References:

Yumura Y, Hara Y, Ida T: Mucinous Adenocarcinoma of the Prostate: A Case Report. Hinyokika Kiyo, 2001 July; 47(7):505-8. Review.

Tran TT, Sengupta E, Yang XJ: Prostatic Foamy Gland Carcinoma With Aggressive Behavior: Clinicopathologic, Immunohistochemical and Ultrastructural Analysis. Am J Surg Pathol, 2000 May; 25(5):618-23.

Sousa-Escandon A, Arguelles-Pintos M, Picallo-Sanchez J, et al: Mucinous Carcinoma of the Prostate: Critical Review of Elbadowi's Criteria. Actas Urol Esp., 2000 Feb; 24(2):155-62. Review.

Saito S, Iwaki H: Mucin-Producing Carcinoma of the Prostate: Review of 88 Cases. Urology, 1999 July; 54(1):141-4.