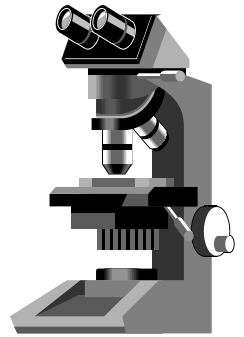


CALIFORNIA  
TUMOR TISSUE REGISTRY

*GENERAL PATHOLOGY*

Minutes – Subscription A

November 2001



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

Clinical Evidence For and Implications of the Multistep Development of Prostate Cancer. Carter H. B, Piantadosi S, and Isaacs JT. *The J of Urol* 1990; 143:742-746.

pT1 Urothelial Carcinoma of the Bladder. Criteria for Diagnosis, Pitfalls, and Clinical Implications. *Adv in Anatomic Pathol* 2000; 7

Prostate Cancer. Another Piece to the Molecular Puzzle. Spurgers K, Briones F, and McDonnell J. *Adv in Anatomic Pathol* 2000; 7(1):9-12.

Prostate Secretory Granules in Normal and Neoplastic Prostate Glands. A Diagnostic Aid to Needle Biopsy. Cohen RJ, Beales MP and McNeal JE. *Hum Pathol* 2000; 31(12):1515-1519.

Gastrointestinal Autonomic Nerve (GAN) Tumor of the Rectum. Lev D, Kariv Y, Messer GY, et al. *J Clin Gastroenterol* 2000; 438-440.

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  
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Web site & Case of the Month: [www.cttr.org](http://www.cttr.org)

## **FILE DIAGNOSES**

**CTTR Subscription A**

**November 2001**

**Case 1:**

**Benign pseudocyst, likely urachal remnant in origin**  
T-Y4100, M-26500

**Case 2:**

**Amyloidosis, gallbladder**  
T-57000, D-3890

**Case 3:**

**Metanephric adenoma, kidney**  
T-71010, M-91100

**Case 4:**

**Mucinous (“signet ring”) adenocarcinoma, prostate**  
T-28000, M-84803

**Case 5:**

**“Secretory” renal cell carcinoma, kidney**  
T-71000, M-83123

**Case 6:**

**Transitional cell carcinoma with squamous differentiation, bladder**  
T-71000, M-80703

**Case 7:**

**Malignant mixed mullerian tumor (“MMMT”, “carcinosarcoma”), heterologous, ovary**  
T-87000, M-89503

**Case 8:**

**Sarcoma, favor malignant hemangiopericytoma, leg**  
T-Y9400, M-91503

**Case 9:**

**Primary leiomyosarcoma of bone, tibia**  
T-11730, M-88903

**Case 10:**

**Biphasic synovial sarcoma, buttock**  
T-Y1600, M-90433

Bakersfield - Hematoma  
Bay Area - Inflammatory cyst/pseudocyst (? Urachal origin or diverticulum)  
Long Beach - Chronic expanding hematoma (7)  
Monterey (Community Hospital of Monterey Peninsula) - Urachal cyst  
Mountain View (El Camino Pathology Group) - Mesothelial cyst  
Oakland (Kaiser) - Pseudocyst (1); Solitary fibrous tumor with cystic degeneration (1)  
Orange (UCI Medical Center) - Organizing hematoma with reactive change  
Riverside/Moreno Valley - Diverticulum of the bladder (1); Benign cyst favor urachal cyst (1)  
Sacramento (UC Davis Medical Center) - Inflammatory pseudocyst  
Santa Barbara (Cottage Hospital) - Urachal cyst  
Santa Rosa (Santa Rosa Memorial Hospital) - Benign cyst containing degenerating blood (1); Benign cyst with hemorrhage (2)  
Ventura - Encapsulated hematoma  
Arkansas (UAMS) - Pseudocyst (in this slide)  
Delaware (Christiana Hospital) - Endometriosis  
Florida (Pathology Associates) - Bladder diverticulum  
Florida (Winter Haven Hospital) - Hemorrhagic cyst  
Idaho (Pathologists Regional Laboratory) - Old cystic hematoma  
Illinois (Burr Ridge) - Fibromatosis  
Illinois (Du Page Pathology Associates) - Traumatic cystic aneurysm  
Illinois, Chicago - Hemangioma  
Illinois (Northwestern Memorial Hospital) - Simple cyst with hemorrhage and ulceration  
Indiana, Fort Wayne - Inflammatory pseudotumor (organ-associated pseudosarcomatous myofibroblastic proliferation, cystic) (pseudosarcomatous fibromyxoid tumor)  
Kansas (Truman Medical Center) - Urachal cyst  
Kansas (University of Kansas Medical Center) - Benign pseudocyst  
Louisiana (Louisiana State University Medical Center) - Benign pseudocyst/resolving hematoma  
Maryland (Johns Hopkins Hospital) - Diverticula of bladder vs. endometriosis (1); Fibrous cyst wall with grumous contents-possible urachal cyst? (1)  
Maryland (National Naval Medical Center) - Benign hemorrhagic cyst (mesothelial cyst) (12)  
Maryland (University of Maryland Medical System) - Pseudocyst  
Massachusetts (Brigham and Women's Residents) - Pseudocyst, possibly of urachal remnant origin  
Massachusetts (New England Medical Center) - Persistent urachal cyst  
Michigan (Oakwood Hospital) - Organizing hematoma  
Michigan (St. Joseph Mercy Hospital) - Pseudocyst vs. pseudoaneurysm  
Nebraska (Creighton University School of Medicine) - Organizing hematoma/bladder diverticula  
New Hampshire, Manchester - Organizing hematoma  
New Jersey (Overlook Hospital) - Benign cyst with old blood (1); Pseudocyst (1)  
New York (Long Island Jewish Medical Center) - Organizing hematoma  
New York (SUNY Stony Brook University Hospital) - Urachal cyst  
New York (VAMC, Northport) - Fibroblastic proliferation-no tumor identified on our slide  
Pennsylvania (Allegheny General Hospital) - Walled off organizing hematoma  
Pennsylvania (Memorial Medical Center) - Benign cyst (mesothelial)  
Pennsylvania (Mountain Area Pathology) - Hematoma (1); Benign fibrous walled cyst (1); Hemorrhagic pseudocyst (1); Benign cyst, probable mesothelial in origin (1)  
Texas (Sierra Medical Center) - Hemorrhagic pseudocyst  
Texas (ProPath Services) - Urachal cyst (2)  
Texas (Scott & White Memorial Hospital) - Cystic mesothelioma  
Washington, Steilacoom - Diverticulum  
West Virginia (Greenbrier Valley Medical Center) - Urachal cyst  
Wisconsin (Meriter Health Services) - Hematocele  
Wisconsin, Milwaukee - Endometriosis  
Ireland (St. James Hospital) - Parasitic cyst consistent with hydatid  
Netherlands, Amsterdam - Echinococcal cyst

**Case 1 - Diagnosis:**

**Benign pseudocyst, likely urachal remnant in origin**

T-Y4100, M-26500

**Case 1 – References:**

Cudazzo E, Puviani P, Bianchi M, et al. (Urachal Cyst. A Case Report and Review of the Literature). *Minerva Chir* 1996; 51(1-2):77-82.  
 Cilento BG, Bauer SB, Retik AB, et al. Urachal Anomalies. Defining the Best Diagnostic Modality. *Urol* 1998; 52(1):120-122.

Mesrobian HG, Zacharias A, Balcom AH, et al. Ten Years of Experience with Isolated Urachal Anomalies in Children. *J Urol* 1997; 158(3 Pt 2):1316-1318.

Cadeddu JA, Boyle KE, Fabrizio MD, et al. Laparoscopic Management of Urachal Cysts in Adulthood. *J Urol* 2000; 164(5):1526-1528.

Luchtman M, Rahav S, Zer M, et al. Management of Urachal Anomalies in Children and Adults. *Urol* 1993; 42(4):426-430.

Rubin JP, Kasznica JM, Davis CA, et al. Transitional Cell Carcinoma in a Urachal Cyst. *J Urol* 1999; 162(5):1687-1688.

## Case No. 2, Accession No. 29146

November 2001

Bakersfield - Amyloidosis  
Bay Area - Amyloidosis (4)  
Long Beach - Amyloidosis (7)  
Monterey (Community Hospital of Monterey Peninsula) - Amyloidosis  
Mountain View (El Camino Pathology Group) - Amyloidosis  
Oakland (Kaiser) - Amyloidosis (2)  
Orange (UCI Medical Center) - Amyloidosis  
Riverside/Moreno Valley - Amyloidosis, gallbladder (2)  
Sacramento (UC Davis Medical Center) - Amyloidosis  
Santa Barbara (Cottage Hospital) - Amyloidosis of gallbladder  
Santa Rosa (Santa Rosa Memorial Hospital) - Amyloidosis of gallbladder (3)  
Ventura - Amyloidosis  
Arkansas (UAMS) - Amyloidosis, AL type  
Delaware (Christiana Hospital) - Amyloidosis  
Florida (Pathology Associates) - Amyloid of gallbladder  
Florida (Winter Haven Hospital) - Amyloidosis  
Idaho (Pathologists Regional Laboratory) - Amyloidosis - involving vessels  
Illinois (Burr Ridge) - Amyloidosis  
Illinois (Du Page Pathology Associates) - Myeloma protein deposition  
Illinois, Chicago - Amyloidosis  
Illinois (Northwestern Memorial Hospital) - Amyloidosis of gallbladder  
Indiana, Fort Wayne - Amyloidosis of gallbladder  
Kansas (Truman Medical Center) - Amyloidosis, primary  
Kansas (University of Kansas Medical Center) - Amyloidosis  
Louisiana (Louisiana State University Medical Center) - Gallbladder, amyloid deposits, cholelithiasis  
Maryland (Johns Hopkins Hospital) - Amyloidosis (1); Amyloid deposition - rule out myeloma, re: bone marrow biopsy (1)  
Maryland (National Naval Medical Center) - Gallbladder with amyloid deposition (12)  
Maryland (University of Maryland Medical System) - Primary amyloidosis  
Massachusetts (Brigham and Women's Residents) - Amyloidosis (AL type)  
Massachusetts (New England Medical Center) - Amyloidosis of gallbladder  
Michigan (Oakwood Hospital) - Amyloidosis  
Michigan (St. Joseph Mercy Hospital) - Amyloidosis  
Nebraska (Creighton University School of Medicine) - Amyloidosis  
New Hampshire, Manchester - Amyloidosis  
New Jersey (Overlook Hospital) - Amyloidosis (2)  
New York (Long Island Jewish Medical Center) - Solitary amyloidoma, absence of systemic symptoms  
New York (SUNY Stony Brook University Hospital) - Amyloid of gallbladder, AL type  
New York (VAMC, Northport) - Amyloidosis vs. non-amyloid light chain deposition disease  
Pennsylvania (Allegheny General Hospital) - Light chain amyloid  
Pennsylvania (Memorial Medical Center) - Amyloid  
Pennsylvania (Mountain Area Pathology) - Amyloidosis (4)  
Texas (Sierra Medical Center) - Amyloidosis of the gallbladder  
Texas (ProPath Services) - Amyloidosis (2)  
Texas (Scott & White Memorial Hospital) - Amyloidosis  
Washington, Steilacoom - Amyloidosis  
West Virginia (Greenbrier Valley Medical Center) - Amyloid - chronic cholecystitis  
Wisconsin (Meriter Health Services) - Amyloidosis  
Wisconsin, Milwaukee - Amyloidosis  
Ireland (St. James Hospital) - Amyloid  
Netherlands, Amsterdam - Amyloidosis of the gallbladder

## **Case 2 – Diagnosis:**

### **Amyloidosis, gallbladder**

T-57000, D-3890

## **Case 2 - References:**

- Westmark P, Shirahama T, Skinner M, et al. Amyloid P – Component (Protein AP) in Localized Amyloidosis as Revealed by Immunocytochemical Method. *Histochem* 1981; 71(2):171-175.
- Thompson LD, Derringer GA and Wenig BM. Amyloidosis of the Larynx. A Clinicopathologic Study of 11 Cases. *Mod Pathol* 2000; 13(5):528-535.
- Remy AJ, Perney P, Bourat L, et al. Amyloidosis of the Gallbladder. An Unusual Localization. *Gastro Clin Biol* 1995; 19(2):215-217.
- Yakar S, Livneh A, Kaplan B, et al. The Molecular Basis of Reactive Amyloidosis. *Semin Arthritis Rheum* 1995; 24(4):255-261.
- Yang M. Detection of Amyloid in Gastric Brushing Material. A Case Report. *Acta Cytol* 1995; 39(2):255-257.

## **Case No. 3, Accession No. 28698**

**November 2001**

Bakersfield - Metanephric adenoma  
Bay Area - Renal cortical adenoma (4)  
Long Beach - Nephrogenic adenoma (7)  
Monterey (Community Hospital of Monterey Peninsula) - Papillary renal cell carcinoma  
Mountain View (El Camino Pathology Group) - Metanephric adenoma  
Oakland (Kaiser) - Metanephric adenoma (2)  
Orange (UCI Medical Center) - Metanephric adenoma  
Riverside/Moreno Valley - Metanephric adenoma, kidney (2)  
Sacramento (UC Davis Medical Center) - Renal cell carcinoma of low malignant potential vs. metanephric adenoma  
Santa Barbara (Cottage Hospital) - Papillary renal cell carcinoma  
Santa Rosa (Santa Rosa Memorial Hospital) - Renal cortical adenoma (2); Adenoma vs. renal cell carcinoma of collecting duct type (1)  
Ventura - Renal cortical adenoma  
Arkansas (UAMS) - Metanephric adenoma  
Delaware (Christiana Hospital) - Collecting duct carcinoma  
Florida (Pathology Associates) - Metanephric adenoma  
Florida (Winter Haven Hospital) - Metanephric adenoma  
Idaho (Pathologists Regional Laboratory) - Metanephric adenoma  
Illinois (Burr Ridge) - Renal cell carcinoma, collecting duct type  
Illinois (Du Page Pathology Associates) - Collecting duct carcinoma  
Illinois, Chicago - Metanephric adenoma  
Illinois (Northwestern Memorial Hospital) - Metanephric adenoma  
Indiana, Fort Wayne - Papillary renal carcinoma, kidney, right (chromophil carcinoma)  
Kansas (Truman Medical Center) - Renal cortical adenoma  
Kansas (University of Kansas Medical Center) - Cortical adenoma vs. mesonephric adenoma  
Louisiana (Louisiana State University Medical Center) - Metanephric adenoma  
Maryland (Johns Hopkins Hospital) - Metanephric adenoma (2)  
Maryland (National Naval Medical Center) - Metanephric adenoma (12)  
Maryland (University of Maryland Medical System) - Metanephric adenoma  
Massachusetts (Brigham and Women's Residents) - Metanephric adenoma  
Massachusetts (New England Medical Center) - Metanephric adenoma  
Michigan (Oakwood Hospital) - Metanephric adenoma  
Michigan (St. Joseph Mercy Hospital) - Metanephric adenoma  
Nebraska (Creighton University School of Medicine) - Papillary carcinoma, kidney ? metastatic from thyroid  
New Hampshire, Manchester - Renal cell carcinoma, papillary (PRCC)  
New Jersey (Overlook Hospital) - Papillary renal cell carcinoma (2)  
New York (Long Island Jewish Medical Center) - Metanephric adenoma of kidney  
New York (SUNY Stony Brook University Hospital) - Papillary renal cell carcinoma (can not exclude metastasis)  
New York (VAMC, Northport) - Metanephric adenoma/renal cortical adenoma  
Pennsylvania (Allegheny General Hospital) - Metanephric adenoma  
Pennsylvania (Memorial Medical Center) - Metanephric adenoma  
Pennsylvania (Mountain Area Pathology) - Metanephric adenoma (4)  
Texas (Sierra Medical Center) - Papillary renal cell carcinoma, basophilic type  
Texas (ProPath Services) - Papillary renal cell carcinoma (2)  
Texas (Scott & White Memorial Hospital) - Metanephric adenoma

Washington, Steilacoom - Metanephric adenoma  
West Virginia (Greenbrier Valley Medical Center) - Renal cell carcinoma, collecting duct type  
Wisconsin (Meriter Health Services) - Metanephric adenoma  
Wisconsin, Milwaukee - Metastatic thyroid papillary carcinoma  
Ireland (St. James Hospital) - Metanephric adenoma  
Netherlands, Amsterdam - Metanephric adenoma

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

#### **Metanephric adenoma, kidney**

T-71010, M-91100

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

Pesti T, Sukosd F, Jones EC, et al. Mapping a Tumor Suppressor Gene to Chromosome 2 p13 in Metanephric Adenoma by Microsatellite Alleotyping. *Hum Pathol* 2001; 32(1):101-104.  
 Grignon DJ and Eble JN. Papillary and Metanephric Adenomas of the Kidney. *Semin Diagn Pathol* 1998; 15(1):41-53.  
 Brown JA, Anderl KL, Borell TJ, et al. Simultaneous Chromosome 7 and 17 Gain and Sex Chromosome Loss Provide Evidence that Renal Metanephric Adenoma is Related to Papillary Renal Cell Carcinoma. *J Urol* 1997; 158(2):370-374.  
 Arroyo MR, Green DM, Perlman EJ, et al. The Spectrum of Metanephric Adenofibroma and Related Lesions. Clinicopathologic Study of 25 Cases from the National Wilms' Tumor Study Group Pathology Center. *Am J Surg Pathol* 2001; 25(4):433-444.

### **Case No. 4, Accession No. 28967**

**November 2001**

Bakersfield - Mucinous carcinoma of prostate  
Bay Area - Mucinous adenocarcinoma (4)  
Long Beach - Mucinous adenocarcinoma (7)  
Monterey (Community Hospital of Monterey Peninsula) - Mucinous carcinoma of bladder  
Mountain View (El Camino Pathology Group) - Mucinous signet ring cell adenocarcinoma  
Oakland (Kaiser) - Mucinous adenocarcinoma (2)  
Orange (UCI Medical Center) - Signet ring cell adenocarcinoma  
Riverside/Moreno Valley - Mucinous carcinoma (signet ring type), prostate  
Sacramento (UC Davis Medical Center) - Signet ring cell carcinoma, favor metastasis  
Santa Barbara (Cottage Hospital) - Mucinous adenocarcinoma of prostate  
Santa Rosa (Santa Rosa Memorial Hospital) - Mucinous (colloid) carcinoma (2); Colloid carcinoma, primary prostate vs. metastatic tumor (1)  
Arkansas (UAMS) - Mucinous adenocarcinoma  
Delaware (Christiana Hospital) - Mucinous adenocarcinoma, bowel origin?  
Florida (Pathology Associates) - Mucinous adenocarcinoma  
Florida (Winter Haven Hospital) - Chordoma  
Idaho (Pathologists Regional Laboratory) - Mucinous (signet ring) adenocarcinoma  
Illinois (Burr Ridge) - Mucinous carcinoma, prostate  
Illinois (Du Page Pathology Associates) - Signet ring cell carcinoma  
Illinois, Chicago - Mucinous carcinoma most likely metastatic  
Illinois (Northwestern Memorial Hospital) - Mixed signet ring cell and colloid carcinoma  
Indiana, Fort Wayne - Mucinous signet ring adenocarcinoma, prostate gland (high grade)  
Kansas (Truman Medical Center) - Mucinous carcinoma (primary Cowper's gland carcinoma vs. metastatic)  
Kansas (University of Kansas Medical Center) - Colloid adenocarcinoma, favor metastatic  
Louisiana (Louisiana State University Medical Center) - Mucinous producing adenocarcinoma, prostate  
Maryland (Johns Hopkins Hospital) - Adenocarcinoma of the seminal vesicle (1); Adenocarcinoma, favor extraprostatic primary given the negative PSA stain (1)  
Maryland (National Naval Medical Center) - Mucinous adenocarcinoma (12)  
Maryland (University of Maryland Medical System) - Mucinous adenocarcinoma  
Massachusetts (Brigham and Women's Residents) - Mucinous adenocarcinoma with signet ring features, exclude metastasis  
Massachusetts (New England Medical Center) - Signet ring adenocarcinoma (prostate/urinary bladder)  
Michigan (Oakwood Hospital) - Mucinous carcinoma, cannot rule out metastasis  
Michigan (St. Joseph Mercy Hospital) - Signet ring cell carcinoma

Nebraska (Creighton University School of Medicine) - Mucinous carcinoma, prostate  
New Hampshire, Manchester - Mucinous adenocarcinoma  
New Jersey (Overlook Hospital) - Mucinous carcinoma (2)  
New York (Long Island Jewish Medical Center) - Mucinous carcinoma (signet-ring cell type), favor prostate primary  
New York (SUNY Stony Brook University Hospital) - Signet ring carcinoma  
New York (VAMC, Northport) - Mucinous carcinoma, poorly differentiated  
Pennsylvania (Allegheny General Hospital) - Mucinous (colloid) carcinoma  
Pennsylvania (Memorial Medical Center) - Liposarcoma (myxoid), signet ring adenocarcinoma  
Pennsylvania (Mountain Area Pathology) - Mucinous adenocarcinoma (4)  
Texas (Sierra Medical Center) - Signet ring cell mucinous adenocarcinoma probable metastatic , can't exclude primary prostate  
Texas (ProPath Services) - Mucinous adenocarcinoma (2)  
Texas (Scott & White Memorial Hospital) - Mucinous carcinoma  
Washington, Steilacoom - Signet ring carcinoma  
West Virginia (Greenbrier Valley Medical Center) - Mucinous adenocarcinoma  
Wisconsin (Meriter Health Services) - Adenocarcinoma, mucin producing  
Wisconsin, Milwaukee - Mucinous adenocarcinoma of prostate  
Ireland (St. James Hospital) - Mucinous adenocarcinoma  
Netherlands, Amsterdam - Mucinous adenocarcinoma

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

##### **Mucinous (“signet ring”) adenocarcinoma, prostate**

Director's note: Communication with the contributing pathologist indicates that tumor was mostly confined to within the prostate, with minimal involvement of soft tissue. The colon was reportedly “normal.” (drc)

T-28000, M-84803

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

Skodras G, Wang J and Kragel PJ. Primary Prostatic Signet-Ring Cell Carcinoma. *Urol* 1993; 42(3):338-342.  
 Ben-Izhak O and Lichtig C. Signet-Ring Carcinoma of the Prostate Mimicking Primary Gastric Carcinoma. *J Clin Pathol* 1992; 45(5):452-454.  
 Guerin D, Hasan N and Keen CE. Signet Ring Cell Differentiation in Adenocarcinoma of the Prostate. A Study of five Cases. *Histopathol* 1993; 22(4):367-371.  
 England DM and Hejka AG. Signet-Ring Carcinoma of the Prostate - Always an Aggressive Lesion? *Arch Pathol Lab Med* 1992; 116(1):99-102.  
 Smith C, Feddersen RM, Dressler L, McConnell T, et al. Signet Ring Adenocarcinoma of Prostate. *Urol* 1994; 43(3):397-400.  
 Alline KM and Cohen MB. Signet-Ring Cell Carcinoma of the Prostate. *Arch Pathol Lab Med* 1992; 116(8):812.

#### **Case No. 5, Accession No. 29159**

**November 2001**

Bakersfield - Malakoplakia  
Bay Area - Angiomyolipoma (4)  
Long Beach - Renal cell carcinoma (7)  
Monterey (Community Hospital of Monterey Peninsula) - Renal cell carcinoma  
Mountain View (El Camino Pathology Group) - Malakoplakia  
Oakland (Kaiser) - Renal cell carcinoma (1); Angiomyolipoma (1)  
Orange (UCI Medical Center) - Renal cell carcinoma  
Riverside/Moreno Valley - Megalocytic interstitial nephritis/malakoplakia, rule out neoplasm (1): Megalocytic interstitial nephritis vs. myeloma deposits (1)  
Sacramento (UC Davis Medical Center) - Malakoplakia (2); vs. Chromophobe renal cell carcinoma (3); vs. renal cell carcinoma of low malignant potential (3)  
Santa Barbara (Cottage Hospital) - Renal cell carcinoma, granular type  
Santa Rosa (Santa Rosa Memorial Hospital) - Malakoplakia (2); Xanthogranulomatous pyelonephritis vs. renal cell carcinoma (1)  
Arkansas (UAMS) - Renal oncocytoma, hyaline globules present  
Delaware (Christiana Hospital) - Malakoplakia  
Florida (Pathology Associates) - Malakoplakia  
Florida (Winter Haven Hospital) - Renal carcinoma, granular cell type

Idaho (Pathologists Regional Laboratory) - Secretory carcinoma  
Illinois (Burr Ridge) - Renal cell carcinoma, granular type  
Illinois (Du Page Pathology Associates) - Angiomyolipoma and renal cell carcinoma  
Illinois, Chicago - Epithelioid angiomyolipoma  
Illinois (Northwestern Memorial Hospital) - Clear cell RCC eosinophilic variant  
Indiana, Fort Wayne - Oncocytoma, left kidney  
Kansas (Truman Medical Center) - Renal cell carcinoma with hemangiopericytic pattern  
Kansas (University of Kansas Medical Center) - Epithelioid angiomyolipoma  
Louisiana (Louisiana State University Medical Center) - Chromophobe cell carcinoma  
Maryland (Johns Hopkins Hospital) - Dialysis-associated renal cell carcinoma (1); Renal cell carcinoma, granular type with hyaline globules (1)  
Maryland (National Naval Medical Center) - Renal cell carcinoma (10); Angiomyolipoma (1); Renal cell adenoma (1)  
Maryland (University of Maryland Medical System) - Clear cell, renal cell carcinoma  
Massachusetts (Brigham and Women's Residents) - Aldosterone secreting adrenal cortical adenoma with spironolactone bodies (less likely RCC)  
Massachusetts (New England Medical Center) - Malakoplakia  
Michigan (Oakwood Hospital) - Renal cell carcinoma, conventional type  
Michigan (St. Joseph Mercy Hospital) - Pheochromocytoma  
Nebraska (Creighton University School of Medicine) - Adrenal adenoma  
New Hampshire, Manchester - Malakoplakia  
New Jersey (Overlook Hospital) - Renal cell carcinoma, NOS (2)  
New York (Long Island Jewish Medical Center) - Malakoplakia of kidney  
New York (SUNY Stony Brook University Hospital) - Renal cell carcinoma  
New York (VAMC, Northport) - Renal cell carcinoma  
Pennsylvania (Allegheny General Hospital) - Malakoplakia  
Pennsylvania (Memorial Medical Center) - Angiomyolipoma  
Pennsylvania (Mountain Area Pathology) - Malakoplakia (4)  
Texas (Sierra Medical Center) - Renal cell carcinoma with prominent hyaline globule  
Texas (ProPath Services) - Malakoplakia (2)  
Texas (Scott & White Memorial Hospital) - Oncocytoma  
Washington, Steilacoom - Myeloma kidney with oxalosis  
West Virginia (Greenbrier Valley Medical Center) - Renal cell adenoma/malakoplakia  
Wisconsin (Meriter Health Services) - Renal cell carcinoma  
Wisconsin, Milwaukee - Angiomyolipoma  
Ireland (St. James Hospital) - Foreign body reaction (spherules, silicone, talc?)  
Netherlands, Amsterdam - Benign (reactive?)

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

**“Secretory” renal cell carcinoma, kidney**  
 T-71000, M-83123

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

Kovacs G. Molecular Differential Pathology of Renal Cell Tumours. *Histopathol* 1993; 22(1):1-8.  
 Igbal MA, Akhtar M and Ali MA. Cytogenic Findings in Renal Cell Carcinoma. *HumPathol* 1996; 27(9):949-954.  
 van den Berg E, Van der Haout AH, et al. Cytogenic Analysis of Epithelial Renal Cell Tumors. Relationship with a New Histopathological Classification. *Int J Cancer* 1993; 55(2):223-227.  
 Kovacs G, Akhtar M, Beckwith BJ, et al. The Heidelberg Classification of Renal Cell Tumors. *J Pathol* 1997; 183(2):131-133.  
 Val-Bernal JF, Gomez-Roman JJ, Vallina T, et al. Papillary (Chromophil) Renal Cell Carcinoma with Mucinous Secretion. *Pathol Res Pract* (Germany) 1999; 195(1):11-17.

**Case No. 6, Accession No. 28976**

**November 2001**

Bakersfield - Poorly differentiated mesothelial carcinoma with focal squamous differentiation

Bay Area - Invasive transitional cell carcinoma, high grade (4)



Long Beach - High-grade transitional-cell carcinoma (7)  
Monterey (Community Hospital of Monterey Peninsula) - Squamous carcinoma  
Mountain View (El Camino Pathology Group) - Poorly differentiated squamous cell carcinoma  
Oakland (Kaiser) - High grade transitional cell carcinoma (2)  
Orange (UCI Medical Center) - Papillary urothelial carcinoma, high grade  
Riverside/Moreno Valley - High grade urothelial carcinoma, urinary bladder (1); High grade transitional cell carcinoma (1)  
Sacramento (UC Davis Medical Center) - Transitional cell carcinoma, high grade with myoinvasion  
Santa Barbara (Cottage Hospital) - High grade transitional cell carcinoma with squamous differentiation  
Santa Rosa (Santa Rosa Memorial Hospital) - High grade transitional cell carcinoma  
Arkansas (UAMS) - Urothelial carcinoma, high grade, with invasion through muscularis propria  
Delaware (Christiana Hospital) - Moderate to poorly differentiated squamous cell carcinoma of bladder  
Florida (Pathology Associates) - High grade transitional carcinoma  
Florida (Winter Haven Hospital) - Transitional cell carcinoma  
Idaho (Pathologists Regional Laboratory) - Poorly differentiated (WHO 3) urothelial carcinoma  
Illinois (Burr Ridge) - Squamous cell carcinoma, bladder  
Illinois (Du Page Pathology Associates) - High grade transitional cell carcinoma  
Illinois, Chicago - High grade transitional cell carcinoma with squamous differentiation  
Illinois (Northwestern Memorial Hospital) - High grade transitional cell carcinoma/squamous cell carcinoma  
Indiana, Fort Wayne - Invasive high grade urothelial carcinoma, urinary bladder  
Kansas (Truman Medical Center) - Transitional cell carcinoma, high grade  
Kansas (University of Kansas Medical Center) - High grade urothelial carcinoma with squamous differentiation  
Louisiana (Louisiana State University Medical Center) - Invasive transitional cell carcinoma  
Maryland (Johns Hopkins Hospital) - Sarcomatoid urothelial carcinoma (1); Infiltrating poorly differentiated urothelial carcinoma with squamous features (1)  
Maryland (National Naval Medical Center) - Transitional cell carcinoma, poorly differentiated  
Maryland (University of Maryland Medical System) - Invasive poorly differentiated transitional cell carcinoma  
Massachusetts (Brigham and Women's Residents) - Poorly differentiated TCC with squamous and sarcomatoid features  
Massachusetts (New England Medical Center) - Poorly differentiated transitional cell carcinoma with areas of squamous differentiation  
Michigan (Oakwood Hospital) - Urothelial carcinoma, high grade  
Michigan (St. Joseph Mercy Hospital) - Squamous carcinoma  
Nebraska (Creighton University School of Medicine) - High grade urothelial carcinoma with squamous differentiation  
New Hampshire, Manchester - Invasive squamous cell carcinoma  
New Jersey (Overlook Hospital) - Invasive transitional cell carcinoma, grade 3-4 (2)  
New York (Long Island Jewish Medical Center) - High grade (grade 4) TCC with squamous differentiation  
New York (SUNY Stony Brook University Hospital) - Transitional cell carcinoma, high grade with extensive squamous differentiation  
New York (VAMC, Northport) - Squamous cell carcinoma  
Pennsylvania (Allegheny General Hospital) - Poorly differentiated urothelial carcinoma  
Pennsylvania (Memorial Medical Center) - Poorly differentiated transitional cell carcinoma  
Pennsylvania (Mountain Area Pathology) - Transitional cell carcinoma, high grade (3); High grade transitional cell carcinoma with squamous differentiation (1)  
Texas (Sierra Medical Center) - Poorly differentiated squamous cell carcinoma  
Texas (ProPath Services) - High grade urothelial carcinoma (2)  
Texas (Scott & White Memorial Hospital) - Poorly differentiated transitional cell carcinoma  
Washington, Steilacoom - Invasive high grade transitional cell carcinoma  
West Virginia (Greenbrier Valley Medical Center) - Transitional cell carcinoma with squamous metaplasia  
Wisconsin (Meriter Health Services) - High grade urothelial carcinoma  
Wisconsin, Milwaukee - Sarcomatoid transitional cell carcinoma  
Ireland (St. James Hospital) - Squamous cell carcinoma (TCC with squamous differentiation)  
Netherlands, Amsterdam - Transitional carcinoma, grade 3

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

**Transitional cell carcinoma with squamous differentiation, bladder**

T-71000, M-80703

#### Case 6 - References:

- Epstein JI, Amin MB, Reuter VR and the Bladder Consensus Conference Committee. The World Health Organization/International Society of Urological Pathology Consensus Classification of Urothelial (Transitional Cell) Neoplasms of the Urinary Bladder. *Am J Surg Pathol* 1998; 22(12):1435-1448.
- Rieger-Christ KM, Cain JW, Braasch JW, et al. Expression of Classic Cadherins Type 1 In Urothelial Neoplastic Progression. *Hum Pathol* 2001; 32(1):18-23.
- Hahn WC, Counter CM, Lundberg AS, et al. Creation of Human Tumor Cells with Defined Genetic Elements. *Nature* 1999; 400(6743):464-468.
- Smith SD, Wheeler MA, Plescia J, et al. Urine Detection of Survivin and Diagnosis of Bladder Cancer. *JAMA* 2001; 285(3):324-328.

#### Case No. 7, Accession No. 28839

November 2001

- Bakersfield - Malignant mixed mesodermal tumor of ovary
- Bay Area - Malignant mixed mullerian tumor (4)
- Long Beach - Carcinosarcoma (7)
- Monterey (Community Hospital of Monterey Peninsula) - Malignant teratoma
- Mountain View (El Camino Pathology Group) - Malignant mixed mullerian tumor with heterologous differentiation
- Oakland (Kaiser) - Malignant mixed mullerian tumor (2)
- Orange (UCI Medical Center) - Malignant mixed mullerian tumor, heterologous variety
- Riverside/Moreno Valley - Undifferentiated carcinoma, ovary (2)
- Sacramento (UC Davis Medical Center) - Carcinosarcoma (MMMT)
- Santa Barbara (Cottage Hospital) - Carcinosarcoma
- Santa Rosa (Santa Rosa Memorial Hospital) - Malignant mixed mullerian tumor
- Arkansas (UAMS) - Malignant mixed mullerian tumor
- Delaware (Christiana Hospital) - Carcinosarcoma
- Florida (Pathology Associates) - Malignant mixed mullerian tumor, carcinosarcoma
- Florida (Winter Haven Hospital) - Mixed mullerian tumor, heterologous type
- Idaho (Pathologists Regional Laboratory) - Malignant mesodermal mixed tumor (MMMT)
- Illinois (Burr Ridge) - Undifferentiated carcinoma, bladder
- Illinois (Du Page Pathology Associates) - Malignant mixed mullerian tumor
- Illinois, Chicago - Carcinosarcoma (MMMT)
- Illinois (Northwestern Memorial Hospital) - MMMT, heterologous type
- Indiana, Fort Wayne - Malignant mixed mesodermal tumor, ovary
- Kansas (Truman Medical Center) - Malignant mixed mullerian tumor
- Kansas (University of Kansas Medical Center) - Malignant mixed mullerian tumor, heterologous type
- Louisiana (Louisiana State University Medical Center) - Carcinosarcoma
- Maryland (Johns Hopkins Hospital) - Malignant mixed mullerian tumor (1); MMMT (combination pleomorphic rhabdomyosarcoma/undifferentiated carcinoma)
- Maryland (National Naval Medical Center) - Mixed mullerian mesodermal tumor
- Maryland (University of Maryland Medical System) - Carcinosarcoma, heterologous type
- Massachusetts (Brigham and Women's Residents) - Malignant mixed mullerian tumor, heterologous type
- Massachusetts (New England Medical Center) - Malignant mixed mullerian tumors
- Michigan (Oakwood Hospital) - Malignant mixed mullerian tumor
- Michigan (St. Joseph Mercy Hospital) - Malignant mixed mullerian tumor
- Nebraska (Creighton University School of Medicine) - Extrauterine malignant mullerian tumor, heterologous type
- New Hampshire, Manchester - Carcinosarcoma
- New Jersey (Overlook Hospital) - MMMT, heterologous type (2)
- New York (Long Island Jewish Medical Center) - Malignant mixed mullerian tumor
- New York (SUNY Stony Brook University Hospital) - Malignant mixed mullerian tumor (carcinosarcoma)
- New York (VAMC, Northport) - Carcinosarcoma
- Pennsylvania (Allegheny General Hospital) - Malignant mixed mullerian tumor
- Pennsylvania (Memorial Medical Center) - Poorly differentiated germ cell tumor

Pennsylvania (Mountain Area Pathology) - Malignant mixed mullerian tumor (4)  
Texas (Sierra Medical Center) - Poorly differentiated neoplasm  
Texas (ProPath Services) - Mixed mullerian tumor, heterologous type (2)  
Texas (Scott & White Memorial Hospital) - Carcinosarcoma  
Washington, Steilacoom - Malignant mixed mullerian tumor  
West Virginia (Greenbrier Valley Medical Center) - Undifferentiated carcinoma with syncytiotrophoblastic giant cells  
Wisconsin (Meriter Health Services) - Carcinosarcoma  
Wisconsin, Milwaukee - Malignant mixed mullerian tumor  
Ireland (St. James Hospital) - Malignant mixed mullerian tumor, rule out malignant teratoma  
Netherlands, Amsterdam - Carcinosarcoma ?

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

**Malignant mixed mullerian tumor (“MMMT”, “carcinosarcoma”), heterologous, ovary**  
T-87000, M-89503

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

Piura B, Rabinovich A, Yanai-Inbar I, et al. Primary Sarcoma of the Ovary. Report of Five Cases and Review of the Literature. *Eur J Gynaecol Oncol* 1998; 19(3):257-261.  
Hellstrom AC, Tegerstedt G, Silfversward C, et al. Malignant Mixed Mullerian Tumors of the Ovary. Histopathologic and Clinical Review of 36 Cases. *Int J Gynecol Cancer* 1999; 9(4):312-316.  
Sit AS, Price FV, Kelley JL, Comerci JT, et al. Chemotherapy for Malignant Mixed Mullerian Tumors of the Ovary. *Gynecol Oncol* 2000; 79(2):196-200.  
Goodwin TJ, Prewett TL, Spaulding GF, et al. Three-Dimensional Culture of a Mixed Mullerian Tumor of the Ovary. Expression of In Vivo Characteristics. *In Vitro Cell Dev Biol Anim* 1997; 33(5):366-374.  
Brun JL, Feyler A, Chene G, Saurel J, et al. Long-Term Results and Prognostic Factors in Patients with Epithelial Ovarian Cancer. *Gynecol Oncol* 2000; 78(1):21-27.

#### **Case No. 8, Accession No. 29117**

**November 2001**

Bakersfield - Hemangiopericytoma

Bay Area - Malignant hemangiopericytoma (2); ? synovial sarcoma, malignant solitary fibrous tumor (1); Malignant vasoformative tumor (1)

Long Beach - Synoviosarcoma (4); Synoviosarcoma with pericytomatous pattern (3)

Monterey (Community Hospital of Monterey Peninsula) - Epithelial sarcoma

Mountain View (El Camino Pathology Group) - Synovial sarcoma, high grade

Oakland (Kaiser) - Proximal type of epithelioid sarcoma (2)

Orange (UCI Medical Center) - Synovial sarcoma

Riverside/Moreno Valley - Hemangiopericytoma, leg (2)

Sacramento (UC Davis Medical Center) - Hemangiopericytoma

Santa Barbara (Cottage Hospital) - Synovial sarcoma

Santa Rosa (Santa Rosa Memorial Hospital) - Malignant hemangiopericytoma (3)

Arkansas (UAMS) - Angiosarcoma

Delaware (Christiana Hospital) - Proximal type, epithelioid sarcoma

Florida (Pathology Associates) - Sarcoma

Florida (Winter Haven Hospital) - Hemangiopericytoma

Idaho (Pathologists Regional Laboratory) - Synovial sarcoma

Illinois (Burr Ridge) - Epithelioid sarcoma

Illinois (Du Page Pathology Associates) - Hemangiopericytoma

Illinois, Chicago - Hemangiopericytoma

Illinois (Northwestern Memorial Hospital) - Malignant solitary fibrous tumor

Indiana, Fort Wayne - Malignant solitary fibrous tumor, pericytic pattern, left leg

Kansas (Truman Medical Center) - Dermatofibrosarcoma protuberance

Kansas (University of Kansas Medical Center) - Hemangiopericytoma

Louisiana (Louisiana State University Medical Center) - Hemangiopericytoma

Maryland (Johns Hopkins Hospital) - Epithelioid angiosarcoma (1); Hemangiopericytoma (1)

Maryland (National Naval Medical Center) - Synovial sarcoma (9); Epithelial angiosarcoma (3)  
Maryland (University of Maryland Medical System) - Synovial sarcoma vs. malignant peripheral nerve sheath tumor  
Massachusetts (Brigham and Women's Residents) - Sarcoma, NOS-favor poorly differentiated synovial sarcoma vs. epithelioid sarcoma vs. high grade angiosarcoma  
Massachusetts (New England Medical Center) - Hemangiopericytoma vs. malignant schwannoma  
Michigan (Oakwood Hospital) - Sarcoma, MPNST vs. epithelioid sarcoma  
Michigan (St. Joseph Mercy Hospital) - Malignant hemangiopericytoma  
Nebraska (Creighton University School of Medicine) - Hemangioendothelioma with spindle features  
New Hampshire, Manchester - Hemangiopericytoma, malignant  
New Jersey (Overlook Hospital) - Malignant hemangiopericytoma (1); Malignant soft tissue tumor (? angiosarcoma (1)  
New York (Long Island Jewish Medical Center) - High grade sarcoma, mimic synovial sarcoma, however, CD34 positive, favor vascular origin  
New York (SUNY Stony Brook University Hospital) - Synovial sarcoma (9); Malignant peripheral nerve sheath tumor (3)  
New York (VAMC, Northport) - Malignant hemangiopericytoma  
Pennsylvania (Allegheny General Hospital) - Malignant hemangiopericytoma  
Pennsylvania (Memorial Medical Center) - Hemangiopericytoma  
Pennsylvania (Mountain Area Pathology) - Hemangiopericytoma (4)  
Texas (Sierra Medical Center) - Hemangiopericytoma, malignant  
Texas (ProPath Services) - Hemangiopericytoma (2)  
Texas (Scott & White Memorial Hospital) - Sarcoma with hemangiopericytomatous features, favor synovial sarcoma  
Washington, Steilacoom - Malignant peripheral sheath tumor  
West Virginia (Greenbrier Valley Medical Center) - Angiosarcoma  
Wisconsin (Meriter Health Services) - Hemangiopericytoma  
Wisconsin, Milwaukee - Hemangiopericytoma  
Ireland (St. James Hospital) - Epithelioid angiosarcoma, rule out synovial sarcoma  
Netherlands, Amsterdam - Synovial sarcoma ?

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

**Sarcoma, favor malignant hemangiopericytoma, leg**  
T-Y9400, M-91503

#### **Case 8 – References:**

Tsuneyoshi M, Daimaru Y and Enjoji M. Malignant Hemangiopericytoma and Other Sarcomas with Hemangiopericytoma-Like Patterns. *Pathol Res Pract* 1984; 178:446-458.  
Pandey M, Kothari KC and Patel DD. Haemangiopericytoma. Current Status, Diagnosis and Management. *Eur J Surg Oncol* 1997; 23(4):282-285.  
Nappi O, Ritter JH, Pettinato G, et al. Hemangiopericytoma. Histopathological Pattern or Clinicopathologic Entity? *Semin Diagn Pathol* 1995; 12(3):221-232.  
Finn WG, Goolsby CL and Rao MS. DNA Flow cytometric Analysis of Hemangiopericytoma. *Am J Clin Pathol* 1994; 101(2):181-185.  
von der Stein B and Schroder R. Three-Dimensional Reconstruction of Some Vessel Types in Meningeal Hemangiopericytoma. *Clin Neuropathol* 1991; 10(6):279-284.

#### **Case No. 9, Accession No. 29129**

**November 2001**

Bakersfield - Leiomyosarcoma  
Bay Area - Leiomyosarcoma (4)  
Long Beach - Leiomyosarcoma (7)  
Monterey (Community Hospital of Monterey Peninsula) - Leiomyosarcoma  
Mountain View (El Camino Pathology Group) - Leiomyosarcoma of bone  
Oakland (Kaiser) - Metastatic leiomyosarcoma (2)  
Orange (UCI Medical Center) - Leiomyosarcoma  
Riverside/Moreno Valley - Leiomyosarcoma (? metastatic), right tibia (2)  
Sacramento (UC Davis Medical Center) - High grade sarcoma favor metastasis  
Santa Barbara (Cottage Hospital) - Leiomyosarcoma

Santa Rosa (Santa Rosa Memorial Hospital) - Leiomyosarcoma (3)  
Arkansas (UAMS) - Leiomyosarcoma  
Delaware (Christiana Hospital) - Leiomyosarcoma, metastatic  
Florida (Pathology Associates) - Leiomyosarcoma  
Florida (Winter Haven Hospital) - Leiomyosarcoma  
Idaho (Pathologists Regional Laboratory) - Leiomyosarcoma  
Illinois (Burr Ridge) - Leiomyosarcoma, metastatic  
Illinois (Du Page Pathology Associates) - Primary leiomyosarcoma of bone  
Illinois, Chicago - Desmoplastic fibroma  
Illinois (Northwestern Memorial Hospital) - Leiomyosarcoma  
Indiana, Fort Wayne - Leiomyosarcoma, right tibia  
Kansas (Truman Medical Center) - Intraosteal leiomyoma  
Kansas (University of Kansas Medical Center) - Leiomyosarcoma of bone  
Louisiana (Louisiana State University Medical Center) - Leiomyosarcoma  
Maryland (Johns Hopkins Hospital) - Malignant fibrous histiocytoma (1); Favor metastatic leiomyosarcoma vs. malignant fibrous histiocytoma of bone  
Maryland (National Naval Medical Center) - Leiomyosarcoma (12)  
Maryland (University of Maryland Medical System) - Leiomyosarcoma  
Massachusetts (Brigham and Women's Residents) - Leiomyosarcoma, exclude metastasis  
Massachusetts (New England Medical Center) - Malignant leiomyosarcoma  
Michigan (Oakwood Hospital) - Leiomyosarcoma  
Michigan (St. Joseph Mercy Hospital) - Leiomyosarcoma  
Nebraska (Creighton University School of Medicine) - Leiomyosarcoma  
New Hampshire, Manchester - Leiomyosarcoma  
New Jersey (Overlook Hospital) - Leiomyosarcoma (2)  
New York (Long Island Jewish Medical Center) - Leiomyosarcoma, favor primary  
New York (SUNY Stony Brook University Hospital) - Leiomyosarcoma  
New York (VAMC, Northport) - Primary leiomyosarcoma  
Pennsylvania (Allegheny General Hospital) - Leiomyosarcoma of bone  
Pennsylvania (Memorial Medical Center) - Osteosarcoma, grade 2 (intermediate)  
Pennsylvania (Mountain Area Pathology) - Leiomyosarcoma (4)  
Texas (Sierra Medical Center) - Leiomyosarcoma, malignant  
Texas (ProPath Services) - Leiomyosarcoma (2)  
Texas (Scott & White Memorial Hospital) - Leiomyosarcoma  
Washington, Steilacoom - Leiomyosarcoma  
West Virginia (Greenbrier Valley Medical Center) - Fibrosarcoma  
Wisconsin (Meriter Health Services) - Leiomyosarcoma  
Wisconsin, Milwaukee - Leiomyosarcoma  
Ireland (St. James Hospital) - Leiomyosarcoma  
Netherlands, Amsterdam - Leiomyosarcoma ?

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

#### **Primary leiomyosarcoma of bone, tibia**

T-11730, M-88903

**Consultation:** Joseph M. Mirra, M.D. Orthopaedic Hospital, Los Angeles, CA. "Leiomyosarcoma, Grade 2 out of 3, probably primary in origin, proximal tibial metaphysis.

### **Case 9 – References:**

- Meyers JL, Arocho J, Bernreuter W, et al. Leiomyosarcoma of Bone. A Clinicopathologic, Immunohistochemical, and Ultrastructural Study of Five Cases. *Cancer* 1991; 67:1051-1056.  
 Jundt G, Moll C, Nidecker A, et al. Primary Leiomyosarcoma of Bone. Report of Eight Cases. *Hum Pathol* 1994; 25(11):1205-1212.  
 Wirbel RJ, Verelst S, Hanselmann R, et al. Primary Leiomyosarcoma of Bone. Clinicopathologic, Immunohistochemical, and Molecular Biologic Aspects. *Ann Surg Oncol* 1998; 5(7):635-641.

Antonescu CR, Erlandson RA and Huvos AG. Primary Leiomyosarcoma of Bone. A Clinicopathologic, Immunohistochemical, and Ultrastructural Study of 33 Patients and a Literature Review. *Am J Surg Pathol* 1997; 21(11):1281-1294.

Khoddami M, Bedard YC, Bell RS, et al. Primary Leiomyosarcoma of Bone. Report of Seven Cases and Review of the Literature. *Arch Pathol Lab Med* 1996; 120(7):671-675.

## Case No. 10, Accession No. 29035

November 2001

Bakersfield - Synovial sarcoma

Bay Area - Synovial sarcoma (2); Sarcoma, NOS (1); Dedifferentiated liposarcoma (1)

Long Beach - Synoviosarcoma (7)

Monterey (Community Hospital of Monterey Peninsula) - Synovial sarcoma

Mountain View (El Camino Pathology Group) - Synovial sarcoma

Oakland (Kaiser) - Synovial sarcoma (2)

Orange (UCI Medical Center) - Biphasic synovial sarcoma

Riverside/Moreno Valley - Synovial sarcoma, left buttock (2)

Sacramento (UC Davis Medical Center) - Synovial sarcoma

Santa Barbara (Cottage Hospital) - Carcinoma with spindle cell features ? arising in a teratoma

Santa Rosa (Santa Rosa Memorial Hospital) - Synovial sarcoma (3)

Arkansas (UAMS) - Synovial sarcoma

Delaware (Christiana Hospital) - Synovial sarcoma

Florida (Pathology Associates) - Synovial sarcoma

Florida (Winter Haven Hospital) - Synovial sarcoma

Idaho (Pathologists Regional Laboratory) - Synovial sarcoma

Illinois (Burr Ridge) - Rhabdomyosarcoma

Illinois (Du Page Pathology Associates) - Mesothelioma

Illinois, Chicago - Synovial sarcoma, monophasic, epithelial type

Illinois (Northwestern Memorial Hospital) - Synovial sarcoma, biphasic

Indiana, Fort Wayne - Synovial sarcoma, left buttock

Kansas (Truman Medical Center) - Synovial sarcoma

Kansas (University of Kansas Medical Center) - Synovial sarcoma

Louisiana (Louisiana State University Medical Center) - Synovial sarcoma

Maryland (Johns Hopkins Hospital) - Synovial sarcoma (2)

Maryland (National Naval Medical Center) - Synovial sarcoma (12)

Maryland (University of Maryland Medical System) - Synovial sarcoma

Massachusetts (Brigham and Women's Residents) - Biphasic synovial sarcoma

Massachusetts (New England Medical Center) - Synovial sarcoma

Michigan (Oakwood Hospital) - Synovial sarcoma

Michigan (St. Joseph Mercy Hospital) - Synovial sarcoma

Nebraska (Creighton University School of Medicine) - Synovial sarcoma, biphasic type

New Hampshire, Manchester - Synovial sarcoma

New Jersey (Overlook Hospital) - Biphasic synovial sarcoma (2)

New York (Long Island Jewish Medical Center) - Synovial sarcoma, biphasic pattern

New York (SUNY Stony Brook University Hospital) - Synovial sarcoma

New York (VAMC, Northport) - Biphasic synovial sarcoma

Pennsylvania (Allegheny General Hospital) - Synovial sarcoma

Pennsylvania (Memorial Medical Center) - Synovial sarcoma

Pennsylvania (Mountain Area Pathology) - Synovial sarcoma (4)

Texas (Sierra Medical Center) - Synovial sarcoma, biphasic

Texas (ProPath Services) - Synovial cell sarcoma (2)

Texas (Scott & White Memorial Hospital) - Monophasic synovial sarcoma

Washington, Steilacoom - Synovial sarcoma

West Virginia (Greenbrier Valley Medical Center) - Synovial sarcoma

Wisconsin (Meriter Health Services) - Synovial sarcoma

Wisconsin, Milwaukee - Synovial sarcoma  
Ireland (St. James Hospital) - Synovial sarcoma  
Netherlands, Amsterdam - Synovial sarcoma?

**Case 10 - Diagnosis:**

**Biphasic synovial sarcoma, buttock**  
T-Y1600, M-90433

**Case 10 - References:**

- Renwick PJ, Reeves BR, Dal Cin P, et al. Two Categories of Synovial Sarcoma Defined by Divergent Chromosome Translocation Breakpoints in Xp11.2 with Implications for the Histological Sub-Classification of Synovial Sarcoma. *Cytogenet Cell Genet* 1995; 70(1-2):58-63.
- Dal Cin P, Rao U, Jani-Sait S, et al. Chromosomes in the Diagnosis of Soft Tissue Tumors. Synovial Sarcoma. *Mod Pathol* 1992; 5(4):357-362.
- Kawauchi S, Goto Y, Liu XP, et al. Low Expression of p27 Kip1, a Cyclin-Dependent Kinase Inhibitor, Is a Marker of Poor Prognosis in Synovial Sarcoma. *Cancer* 2001; 91(5):1005-1012.
- Krause JF, Bertoni F and Fletcher CD. Myxoid Synovial Sarcoma. an Underappreciated Morphologic Subset. *Mod Pathol* 1999; 12(5):456-462.
- Guillou L, Coindre JM, Gallagher G, et al. Detection of the Synovial Sarcoma Translocation t (X:18) (SYT; SSX) in Paraffin—Embedded Tissues Using Reverse Transcriptase-Polymerase Chain Reaction. A Reliable and Powerful Diagnostic Tool for Pathologist. A Molecular Analysis of 221 Mesenchymal Tumors Fixed in Different Fixatives. *Hum Pathol* 2001; 132(1):105-112.
- Oda Y, Hashimoto H, et al. Survival in Synovial Sarcoma. A Multivariate Study of Prognostic Factors with Special Emphasis on the Comparison Between Early Death and Long-Term Survival. *Am J Surg Pathol* 1993; 17:35-44.