



CALIFORNIA
TUMOR TISSUE REGISTRY

“General Pathology”

Minutes – Subscription B

September, 2006



SUGGESTED READING (General Topics from Recent Literature):

Franz M. Enzinger: His Life And Work. Weiss SW. *Adv Anat Pathol*, 2006; 13:109-13.

Follow-Up Study Of Long-Term Survivors Of Osteosarcoma In The Prechemotherapy Era. Gaffney R, Unni KK, Sim FH. *Hum Pathol*, 2006 Aug; 37(8):1009-14.

A Case Of Vitamin-D Deficiency Masquerading As Occult Malignancy. Ahmed M, Faraz HA, Almahfouz A, et al: *Ann Saudi Med*, 2006 May-Jun; 26(3):231-8.

Aptamers As Potential Probes For Cancer. Senior K. *The Lancet*, 2006 Sep; 7(9):712.

Soft Tissue Osteochondroma: Case Report And Immunohistochemistry For Parathyroid Hormone-Related Protein. Ratcliff JR, Naqvi A, de la Rosa, G, et al. *Ann Diag Pathol*, 2006 Aug; 10(4):222-9

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FILE DIAGNOSES

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

CTTR Subscription B

Case 1:

**Adrenal cortical hemangioma
T-93000, M-9120/0**

Case 2:

**Retroperitoneal fibromatosis
T-Y4600, M-76100**

Case 3:

**Myxoid neurofibroma, buttock
T-Y1600, M-9540/0**

Case 4:

**Myxoid MFH (myxofibrosarcoma), arm
T-Y8000, M-8830/3**

Case 5:

**Metastatic signet-ring adenocarcinoma (Krukenberg tumor), ovaries
T-87000, M-8490/6**

Case 6:

**Brenner tumor, ovary
T-87000, M-90000**

Case 7:

**Fibrothecoma, ovary
T-87000, M-86000**

Case 8:

**Invasive/malignant thymoma (“thymic carcinoma”)
T-Y2300, M-8580/3**

Case 9:

**Osteochondroma, humerus
T-11410, M-9210/0**

Case 10:

**Osteosarcoma, femur
T-11710, M-9180/3**

Bakersfield - Pheochromocytoma
Escondido - Cortical adenoma
Glendale - Cavernous hemangioma
Loma Linda University Residents - Pheochromocytoma
Mountain View (El Camino Pathology) - Adrenocortical adenoma
Orange (UCI Medical Center Residents) - Adrenal adenoma
Palo Alto (Palo Alto Pathology) - Cortical adenoma with hemorrhage and calcifications
Sacramento (U.C. Davis Residents) - Cortical adenoma
San Diego (UCSD) - Adrenal cortical adenoma
San Francisco (San Francisco General Hospital) - Cavernous hemangioma
Arkansas (University of Arkansas Medical Center) - Adrenal cortical adenoma, adrenal (2)
Florida (Winter Haven Hospital) - Adrenocortical adenoma (2)
Georgia, Decatur - Adrenocortical adenoma
Illinois (Heartland Regional Medical Center) - Hemangioma
Illinois (Loyola University Medical Center) - Adenoma
Kansas (Coffeyville Regional Medical Center) - Adrenal cortical adenoma
Kansas (Peterson Laboratory Services) - Adrenal pseudocyst
Kansas (Physicians Reference Laboratory) - Pheochromocytoma (1); Adrenocortical neoplasm (1)
Kentucky (University of Louisville Hospital) - Adrenal cortical adenoma
Louisiana (Louisiana State University Health Science Center) - Adrenal cortical adenoma
Maryland (University of Maryland Medical Center) - Cortical adenoma
Maryland (Silver Springs) - Adrenal adenoma with cystic degeneration
Massachusetts (UMASS Pathology Residents) - Adrenal cortical adenoma
Michigan (Henry Ford Hospital Residents) - Adrenal cortical adenoma
Michigan (St. Joseph Mercy Hospital) - Cortical adenoma
Michigan, Ann Arbor - Adrenal cortical adenoma
Montana, Missoula - Masson tumor
New York (Nassau University Medical Center) - Adrenal cortical adenoma
New York (SUNY Downstate Medical Center) - Adrenal cortical adenoma
North Carolina (Wake Forest University Medical Center) - Adrenocortical adenoma
North Carolina (Womack Army Medical Center) - Adrenal cortical adenoma (4)
Ohio (Summa Health System Pathology Residency Program) - Adrenocortical adenoma
Ohio (University of Toledo/University Medical Center) - Adenoma vs. vascular malformation ?
Oklahoma (Integrus Baptist Medical Center) - Adrenal cortical adenoma
Pennsylvania (Conemaugh Memorial Medical Center) - Cortical neoplasm, favoring adenoma
Pennsylvania (Drexel University College of Medicine) - Adrenal cortical adenoma
Texas (Scott & White Hospital) - Adrenal adenoma
Texas, Lubbock - Cortical adenoma
Texas, San Antonio - Cavernous hemangioma
Texas, Sugarland - Cavernous hemangioma
Utah (University of Utah Pathology Residents) - Pheochromocytoma
West Virginia (Wetzel County Hospital) - Pseudocyst of adrenal
Australia (Sullivan Nicolaides Pathology) - Adrenal cortical adenoma
Canada (Pasqua Hospital) - Adrenal adenoma
Canada (University Hospital of Sherbrooke) - Adrenocortical adenoma
China (Sir Run Run Shaw Hospital) - Adrenal cortical oncocytoma
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Adrenal cortical adenoma
Japan (Gunma University Hospital) - Cortical adenoma
Japan (Hamamatsu University School of Medicine) - Hemangioma
Japan, Chiba - Adrenal cortical carcinoma
Puerto Rico (University of Puerto Rico) - Adrenal cortical adenoma
Qatar (Hamad Medical Corporation) - Adrenocortical adenoma
Saudi Arabia (King Fahad National Guard Hospital) - Pheochromocytoma
Saudi Arabia (MCH) - Adrenal cortical adenoma
Singapore (KK Women's and Children's Hospital) - Adrenocortical adenoma
Spain (Povisa) - Adenoma
The Netherlands, Amstelveen - Haemangioma and focally myelolipoma
United Kingdom (Oxford Study Group) - Adrenal hemangioma

Case 1 - Diagnosis:

**Adrenal cortical hemangioma
T-93000, M-9120/0**

Case 1 - References:

- Silverberg D, Paramesh AS, Roayaie S, Schwartz ME: Giant Hemangioma Of The Adrenal. *Isr Med Assoc J*, 2004 Nov; 6(11):705-6.
- Lerttumnongtum P, Muttarak M, Visrutaratna P, Ya-In C: Imaging Features Of Unusual Adrenal Masses. *Australas Radiol*, 2004 Jun; 48(2):107-13.
- Xu HX, Liu GJ: Huge Cavernous Hemangioma Of The Adrenal Gland: Sonographic, Computed Tomographic, And Magnetic Resonance Imaging Findings. *J Ultrasound Med*, 2003 May; 22(5):523-6.
- Bauland CG, van Steensel MA, Steijlen PM, et al: The Pathogenesis Of Hemangiomas: A Review. *Plastic & Reconstructive Surgery*, 2006 Feb; 117(2):29e-35e.
- Kleinman ME, Blei F, Gurtner GC: Circulating Endothelial Progenitor Cells And Vascular Anomalies. *Lymphatic Research & Biology*, 2005; 3(4):234-9.

Case No. 2 - Accession No. 28942

September, 2006

Bakersfield - Low-grade fibromyxoid sarcoma
Escondido - Abdominal fibromatosis
Glendale - Intramuscular nodular fasciitis
Loma Linda University Residents - Desmoid-type fibromatosis
Mountain View (El Camino Pathology) - Fibromatosis (desmoid tumor)
Orange (UCI Medical Center Residents) - Fibromatosis
Palo Alto (Palo Alto Pathology) - Proliferating myositis
Sacramento (U.C. Davis Residents) - Desmoid tumor
San Diego (UCSD) - Aggressive fibromatosis (desmoid fibromatosis)
San Francisco (San Francisco General Hospital) - Desmoid fibromatosis
Arkansas (University of Arkansas Medical Center) - Fibromatosis, retroperitoneum (2)
Florida (Winter Haven Hospital) - Desmoid fibromatosis (2)
Georgia, Decatur - Fibromatosis
Illinois (Heartland Regional Medical Center) - Fibromatosis
Illinois (Loyola University Medical Center) - Fibromatosis
Kansas (Coffeyville Regional Medical Center) - Retroperitoneal fibromatosis
Kansas (Peterson Laboratory Services) - Fibromatosis
Kansas (Physicians Reference Laboratory) - Fibromatosis (1); Desmoid tumor (fibromatosis) (1)
Kentucky (University of Louisville Hospital) - Fibromatosis
Louisiana (Louisiana State University Health Science Center) - Desmoid tumor (aggressive fibromatosis)
Maryland (University of Maryland Medical Center) - Desmoid fibromatosis
Maryland (Silver Springs) - Abdominal desmoid
Massachusetts (UMASS Pathology Residents) - Abdominal fibromatosis
Michigan (Henry Ford Hospital Residents) - Deep fibromatosis (desmoid tumor), retroperitoneum
Michigan (St. Joseph Mercy Hospital) - Low-grade fibromyxoid sarcoma
Michigan, Ann Arbor - Nodular fasciitis
Montana, Missoula - Proliferative myositis
New York (Nassau University Medical Center) - Low-grade fibromyxoid sarcoma
New York (SUNY Downstate Medical Center) - Deep fibromatosis
North Carolina (Wake Forest University Medical Center) - Low-grade fibromyxoid sarcoma
North Carolina (Womack Army Medical Center) - Intra-abdominal fibromatosis (4)
Ohio (Summa Health System Pathology Residency Program) - Fibromatosis
Ohio (University of Toledo/University Medical Center) - Fibromatosis (desmoid tumor)
Oklahoma (Integrus Baptist Medical Center) - Fibromatosis
Pennsylvania (Conemaugh Memorial Medical Center) - Fibromatosis, desmoid type
Pennsylvania (Drexel University College of Medicine) - Intra-abdominal desmoid tumor (desmoid type fibromatosis)
Texas (Scott & White Hospital) - Intra-abdominal desmoid
Texas, Lubbock - Desmoid tumor
Texas, San Antonio - Fibromatosis
Texas, Sugarland - Desmoid tumor
Utah (University of Utah Pathology Residents) - Desmoid

West Virginia (Wetzel County Hospital) - Inflammatory myofibroblastic tumor
Australia (Sullivan Nicolaides Pathology) - Intra-abdominal fibromatosis
Canada (Pasqua Hospital) - Fibromatosis
Canada (University Hospital of Sherbrooke) - Aggressive angiomyxoma/Fibromatosis
China (Sir Run Run Shaw Hospital) - Fibromatosis
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Fibromatosis
Japan (Gunma University Hospital) - Intra-abdominal fibromatosis
Japan (Hamamatsu University School of Medicine) - Retroperitoneal fibromatosis
Japan, Chiba - Low-grade fibromyxoid sarcoma
Puerto Rico (University of Puerto Rico) - Fibromatosis (aggressive ?)
Qatar (Hamad Medical Corporation) - Intra-abdominal fibromatosis
Saudi Arabia (King Fahad National Guard Hospital) - Intra-abdominal spindle cell neoplasm; Fibromatosis, desmoid type
Saudi Arabia (MCH) - Fibromatosis
Singapore (KK Women's and Children's Hospital) - Desmoid tumor (deep fibromatosis)
Spain (Povisa) - Abdominal fibromatosis (Desmoid)
The Netherlands, Amstelveen - Fibromyxoid sarcoma
United Kingdom (Oxford Study Group) - Retroperitoneal fibromatosis

Case 2 - Diagnosis:

Retroperitoneal fibromatosis T-Y4600, M-76100

Case 2 - References:

Ferenc T, Sygut J, Kopczynski J, et al: Aggressive Fibromatosis (Desmoid Tumors): Definition, Occurrence, Pathology, Diagnostic Problems, Clinical Behavior, Genetic Background. *Pol J Pathol*, 2006; 57(1):5-15.
 Nishiguchi S, Habu D, Shiomi S, et al: Sporadic Intra-Abdominal Desmoid With Acute Abdomen. *Indian J Gastroenterol*, 2002 Sep-Oct; 21(5):199-200.
 Middleton SB, Phillips RK: Surgery For Large Intra-Abdominal Desmoid Tumors: Report of Four Cases. *Dis Colon Rectum*, 2000 Dec; 43(12):1759-62, discussion 1762-3.
 Burke AP, Sobin LH, Shekitka KM, et al: Intra-Abdominal Fibromatosis: A Pathologic Analysis Of 130 Tumors With Comparison Of Clinical Subgroups. *Am J Surg Pathol*, 1990 Apr; 14(4):335-41.
 Sturt NJ, Gallagher MC, Bassett P, et al: Evidence For Genetic Predisposition To Desmoid Tumours In Familial Adenomatous Polyposis Independent Of The Germline APC Mutation. *Gut*, 2004 Dec; 53(12):1832-6.
 Brandal P, Micci F, Bjerkheggen B, et al: Molecular Cytogenetic Characterization Of Desmoid Tumors. *Cancer Genetics And Cytogenetics*, 2003 Oct 1; 146(1):1-7.

Case No. 3 - Accession No. 28911

September, 2006

Bakersfield - Perineuroma
Escondido - Angiomyxoma
Glendale - Neurofibroma
Loma Linda University Residents - Myxoid neurofibroma
Mountain View (El Camino Pathology) - Neurofibroma
Orange (UCI Medical Center Residents) - Low-grade fibromyxoid sarcoma
Palo Alto (Palo Alto Pathology) - Cutaneous myxoma
Sacramento (U.C. Davis Residents) - Myxoid liposarcoma
San Diego (UCSD) - Neurofibroma
San Francisco (San Francisco General Hospital) - Myxoid liposarcoma
Arkansas (University of Arkansas Medical Center) - Schwannoma, buttock (1); Neurofibroma (1)
Florida (Winter Haven Hospital) - Neurofibroma (2)
Georgia, Decatur - Neurofibroma
Illinois (Heartland Regional Medical Center) - Myxoid neurofibroma
Illinois (Loyola University Medical Center) - Neurofibroma
Kansas (Coffeyville Regional Medical Center) - Unclassified myxoid lesion of soft tissue
Kansas (Peterson Laboratory Services) - Myxoid neurofibroma
Kansas (Physicians Reference Laboratory) - Diffuse neurofibroma (1); Spindle cell lipoma (1)
Kentucky (University of Louisville Hospital) - Ganglioneuroma
Louisiana (Louisiana State University Health Science Center) - Neurofibroma

Maryland (University of Maryland Medical Center) - Neurofibroma
Maryland (Silver Springs) - Myxoid neurofibroma
Massachusetts (UMASS Pathology Residents) - Myxoid neurofibroma
Michigan (Henry Ford Hospital Residents) - Neurofibroma, buttock
Michigan (St. Joseph Mercy Hospital) - Myxoid sarcoma
Michigan, Ann Arbor - Neurofibroma
Montana, Missoula - Myxofibrosarcoma
New York (Nassau University Medical Center) - Schwannoma
New York (SUNY Downstate Medical Center) - Neurofibroma
North Carolina (Wake Forest University Medical Center) - Neurofibroma
North Carolina (Womack Army Medical Center) - Ganglioneuroma (4)
Ohio (Summa Health System Pathology Residency Program) - Neurofibroma
Ohio (University of Toledo/University Medical Center) - Myxoma
Oklahoma (Integrus Baptist Medical Center) - Myxoma
Pennsylvania (Conemaugh Memorial Medical Center) - Neurofibroma
Pennsylvania (Drexel University College of Medicine) - Myxoma
Texas (Scott & White Hospital) - Neurofibroma
Texas, Lubbock - Neurofibroma
Texas, San Antonio - Aggressive angiomyxoma
Texas, Sugarland - Liposarcoma
Utah (University of Utah Pathology Residents) - Cellular myxoma
West Virginia (Wetzel County Hospital) - Myxolipoma
Australia (Sullivan Nicolaides Pathology) - Neurofibroma
Canada (Pasqua Hospital) - Neurofibroma
Canada (University Hospital of Sherbrooke) - Ganglioneuroma
China (Sir Run Run Shaw Hospital) - Neurofibroma
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Myxoid neurofibroma
Japan (Gunma University Hospital) - Neurofibroma
Japan (Hamamatsu University School of Medicine) - Neurofibroma
Japan, Chiba - Neurofibroma
Puerto Rico (University of Puerto Rico) - Schwannoma
Qatar (Hamad Medical Corporation) - Neurofibroma
Saudi Arabia (King Fahad National Guard Hospital) - Benign peripheral nerve sheath tumor, favour myxoid neurofibroma
Saudi Arabia (MCH) - Neurofibroma
Singapore (KK Women's and Children's Hospital) - Neurofibroma
Spain (Povisa) - Angiomyxoma/Benign myxoid lesion, unclassified
The Netherlands, Amstelveen - Neurofibroma
United Kingdom (Oxford Study Group) - Right buttock – myxoid neurofibroma

CASE 3 - Diagnosis:

Myxoid neurofibroma, buttock
T-Y1600, M-9540/0

Case 3 - References:

Ferner RE, O'Doherty MJ: Neurofibroma And Schwannoma. *Curr Opin Neurol*, 2002 Dec; 15(6):679-84. Review.
 Wakely PE Jr: Myxomatous Soft Tissue Tumors: Correlation Of Cytopathology And Histopathology. *Ann Diagn Pathol*, 1999 Aug; 3(4):227-42.
 Fine SW, McClain SA, Li M: Immunohistochemical Staining For Calretinin Is Useful For Differentiating Schwannomas From Neurofibromas. *Am J Clin Pathol*, 2004 Oct, 122(4):552-9.
 McLaughlin ME, Jacks T: Progesterone Receptor Expression In Neurofibromas. *Cancer Research*, 2003 Feb 15; 63(4):752-5.
 Feany MB, Anthony DC, Fletcher CD: Nerve Seath Tumours With Hybrid Features Of Neurofibroma And Schwannoma: A Conceptual Challenge. *Histopathology*, 2000 May; 36(5):473-4.

Bakersfield - Atypical fibroxanthoma/MFH
Escondido - Malignant fibrous histiocytoma
Glendale - Dedifferentiated liposarcoma
Loma Linda University Residents - MFH (pleomorphic)
Mountain View (El Camino Pathology) - Malignant fibrous histiocytoma
Orange (UCI Medical Center Residents) - Dedifferentiated liposarcoma; DD: Neurofibroma
Palo Alto (Palo Alto Pathology) - MFH, myxoid
Sacramento (U.C. Davis Residents) - Malignant fibrous histiocytoma (MFH)
San Diego (UCSD) - Pleomorphic spindle cell sarcoma, favor MFH
San Francisco (San Francisco General Hospital) - Atypical fibroxanthoma
Arkansas (University of Arkansas Medical Center) - Pleomorphic sarcoma (MFH), recurrent, arm (1); Pleomorphic undifferentiated sarcoma (1)
Florida (Winter Haven Hospital) - MFH (1); Inflammatory MFH (1)
Georgia, Decatur - Pleomorphic sarcoma, ? MFH
Illinois (Heartland Regional Medical Center) - Malignant fibrous histiocytoma
Illinois (Loyola University Medical Center) - Malignant fibrous histiocytoma
Kansas (Coffeyville Regional Medical Center) - Myxoid variant of MFH
Kansas (Peterson Laboratory Services) - Malignant fibrous histiocytoma
Kansas (Physicians Reference Laboratory) - MFH – Malignant fibrous histiocytoma (2)
Kentucky (University of Louisville Hospital) - Inflammatory MFH
Louisiana (Louisiana State University Health Science Center) - Malignant fibrous histiocytoma
Maryland (University of Maryland Medical Center) - MFH
Maryland (Silver Springs) - Malignant fibrous histiocytoma
Massachusetts (UMASS Pathology Residents) - Malignant fibrous histiocytoma
Michigan (Henry Ford Hospital Residents) - Malignant fibrous histiocytoma, arm
Michigan (St. Joseph Mercy Hospital) - Malignant fibrous histiocytoma
Michigan, Ann Arbor - Hodgkin lymphoma
Montana, Missoula - Granulocytic sarcoma
New York (Nassau University Medical Center) - Malignant fibrous histiocytoma
New York (SUNY Downstate Medical Center) - Malignant fibrous histiocytoma
North Carolina (Wake Forest University Medical Center) - Inflammatory MFH
North Carolina (Womack Army Medical Center) - Malignant fibrous histiocytoma (4)
Ohio (Summa Health System Pathology Residency Program) - Malignant fibrous histiocytoma
Ohio (University of Toledo/University Medical Center) - Malignant fibrous histiocytoma
Oklahoma (Integrus Baptist Medical Center) - Malignant fibrous histiocytoma, myxoid
Pennsylvania (Conemaugh Memorial Medical Center) - Malignant fibrohistiocytoma
Pennsylvania (Drexel University College of Medicine) - Malignant fibrohistiocytoma
Texas (Scott & White Hospital) - High-grade pleomorphic sarcoma
Texas, Lubbock - Malignant fibrous histiocytoma
Texas, San Antonio - Malignant fibrous histiocytoma
Texas, Sugarland - Myxoinflammatory fibroblastic sarcoma
Utah (University of Utah Pathology Residents) - Myxo-inflammatory fibroblastic sarcoma
West Virginia (Wetzel County Hospital) - Inflammatory malignant fibrous histiocytoma
Australia (Sullivan Nicolaides Pathology) - Malignant fibrous histiocytoma
Canada (Pasqua Hospital) - Malignant fibrous histiocytoma
Canada (University Hospital of Sherbrooke) - Myxofibrosarcoma (MFH)
China (Sir Run Run Shaw Hospital) - Pleomorphic malignant fibrous histiocytoma
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Pleomorphic sarcoma (MFH)
Japan (Gunma University Hospital) - Malignant fibrous histiocytoma
Japan (Hamamatsu University School of Medicine) - Myxo-inflammatory fibroblastic sarcoma
Japan, Chiba - Histiocytic sarcoma
Puerto Rico (University of Puerto Rico) - Pleomorphic sarcoma – malignant fibrous histiocytoma
Qatar (Hamad Medical Corporation) - Malignant fibrous histiocytoma
Saudi Arabia (King Fahad National Guard Hospital) - Ischemic fasciitis
Saudi Arabia (MCH) - Lymphoma
Singapore (KK Women's and Children's Hospital) - Pleomorphic sarcoma (features consistent with malignant fibrous histiocytoma)
Spain (Povisa) - Malignant fibrous histiocytoma
The Netherlands, Amstelveen - Inflammatory malignant fibrous histiocytoma
United Kingdom (Oxford Study Group) - Left arm – undifferentiated sarcoma (malignant fibrous histiocytoma)

Case 4 - Diagnosis:

**Myxoid MFH (myxofibrosarcoma), arm
T-Y8000, M-8830/3**

Case 4 - References:

- Fujimura T, Okuyama R, Terui T, et al: Myxofibrosarcoma (Myxoid Malignant Fibrous Histiocytoma) Showing Cutaneous Presentation. Report Of Two Cases. *J Cutan Pathol*, 2005 Aug; 32(7):512-5.
- Idbaih A, Coindre JM, Derre J, et al: Myxoid Malignant Fibrous Histiocytoma And Pleomorphic Liposarcoma Share Very Similar Genomic Imbalances. *Lab Invest*, 2005 Feb; 85(2):176-81.
- Oda Y, Takahira T, Kawaguchi K, et al: Altered Expression Of Cell Cycle Regulators In Myxofibrosarcoma, With Special Emphasis On Their Prognostic Implications. *Hum Pathol*, 2003 Oct; 34(10):1035-42.
- Mansoor A, White CR Jr.: Myxofibrosarcoma Presenting In The Skin: Clinicopathological Features And Differential Diagnosis With Cutaneous Myxoid Neoplasms. *Am J Dermatopathol*, 2003 Aug; 25(4):281-6.
- Graadt van Roggen JF, Hogendoorn PC, Fletcher CD: Myxoid Tumours Of Soft Tissue. *Histopathology*, 1999 Oct; 35(4):291-312.

Case No. 5 - Accession No. 30026

September, 2006

- Bakersfield - Metastatic signet-ring carcinoma
- Escondido - Krukenberg tumor
- Glendale - Signet-ring cell carcinoma
- Loma Linda University Residents - Krukenberg tumor
- Mountain View (El Camino Pathology) - Metastatic signet-ring adenocarcinoma
- Orange (UCI Medical Center Residents) - Metastatic signet-ring cell carcinoma
- Palo Alto (Palo Alto Pathology) - Signet-ring mucinous tumor resembling salivary gland
- Sacramento (U.C. Davis Residents) - Krukenberg tumor
- San Diego (UCSD) - Metastatic signet-ring tumor/Krukenberg tumor
- San Francisco (San Francisco General Hospital) - Metastatic Goblet cell carcinoid
- Arkansas (University of Arkansas Medical Center) - Krukenberg tumor, ovary (1); Metastatic adenocarcinoma, signet-ring cell type (1)
- Florida (Winter Haven Hospital) - Signet-cell carcinoma, metastatic (2)
- Georgia, Decatur - Signet-ring cell carcinoma, c/w Krukenberg tumor
- Illinois (Heartland Regional Medical Center) - Signet-ring cell adenocarcinoma (Krukenberg tumor)
- Illinois (Loyola University Medical Center) - Metastatic adenocarcinoma with signet-ring features
- Kansas (Coffeyville Regional Medical Center) - Krukenberg tumor, ovaries
- Kansas (Peterson Laboratory Services) - Mucinous carcinoma, metastatic
- Kansas (Physicians Reference Laboratory) - Metastatic signet-ring adenocarcinoma (1); Signet-ring cell carcinoma, favor metastatic origin (1)
- Kentucky (University of Louisville Hospital) - Metastatic Goblet cell adenocarcinoid
- Louisiana (Louisiana State University Health Science Center) - Krukenberg tumor
- Maryland (University of Maryland Medical Center) - Goblet cell carcinoid/low grade "illegible words" (carcinoma), metastatic to the ovaries
- Maryland (Silver Springs) - Metastatic signet-ring adenocarcinoma
- Massachusetts (UMASS Pathology Residents) - Metastatic adenocarcinoma consistent with Krukenberg tumor
- Michigan (Henry Ford Hospital Residents) - Mucinous/Goblet cell carcinoid, probably metastatic, ovary
- Michigan (St. Joseph Mercy Hospital) - Krukenberg tumor (metastatic adenocarcinoma)
- Michigan, Ann Arbor - Appendiceal Goblet cell adenocarcinoma, metastatic
- Montana, Missoula - Krukenberg tumor
- New York (Nassau University Medical Center) - Mucinous adenocarcinoma, likely metastatic to ovary
- New York (SUNY Downstate Medical Center) - Metastatic signet-ring adenocarcinoma
- North Carolina (Wake Forest University Medical Center) - Metastatic signet-ring cell carcinoma
- North Carolina (Womack Army Medical Center) - Krukenberg tumor (4)
- Ohio (Summa Health System Pathology Residency Program) - Metastatic signet-ring cell carcinoma
- Ohio (University of Toledo/University Medical Center) - Signet-ring carcinoma
- Oklahoma (Integris Baptist Medical Center) - Signet-ring cell carcinoma, metastatic (Krukenberg tumor)
- Pennsylvania (Conemaugh Memorial Medical Center) - Signet-ring adenocarcinoma
- Pennsylvania (Drexel University College of Medicine) - Poorly-differentiated signet-ring cell adenocarcinoma
- Texas (Scott & White Hospital) - Metastatic signet-ring carcinoma
- Texas, Lubbock - Metastatic signet-ring cell carcinoma
- Texas, San Antonio - Metastatic adenocarcinoma with mucinous and signet-ring cell features

Texas, Sugarland - Metastatic signet-ring cell carcinoma
Utah (University of Utah Pathology Residents) - Krukenberg tumor
West Virginia (Wetzel County Hospital) - Metastatic signet-ring mucinous adenocarcinoma, Krukenberg's tumor
Australia (Sullivan Nicolaides Pathology) - Krukenberg tumour
Canada (Pasqua Hospital) - Krukenberg tumor
Canada (University Hospital of Sherbrooke) - Krukenberg tumor (metastatic adenocarcinoma)
China (Sir Run Run Shaw Hospital) - Krukenberg tumor
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Metastatic carcinoma (Krukenberg)
Japan (Gunma University Hospital) - Mucinous carcinoid
Japan (Hamamatsu University School of Medicine) - Mucinous adenocarcinoma, metastatic
Japan, Chiba - Krukenberg tumor
Puerto Rico (University of Puerto Rico) - Krukenberg tumor
Qatar (Hamad Medical Corporation) - Krukenberg tumor
Saudi Arabia (King Fahad National Guard Hospital) - Krukenberg tumor of ovary; Signet-ring cell carcinoma
Saudi Arabia (MCH) - Metastatic mucinous adenocarcinoma (Krukenberg tumor)
Singapore (KK Women's and Children's Hospital) - Signet-ring adenocarcinoma (most likely metastatic)
Spain (Povisa) - Mucinous carcinoma/Krukenberg tumor
The Netherlands, Amstelveen - Metastatic mucinous adenocarcinoma
United Kingdom (Oxford Study Group) - Right ovary – Metastatic mucinous adenocarcinoma (exclude mucinous carcinoid)

Case 5 - Diagnosis:

Metastatic signet-ring adenocarcinoma (Krukenberg tumor), ovaries

T-87000, M-8490/6

Case 5 - References:

Young RH: From Krukenberg To Today: The Ever Present Problems Posed By Metastatic Tumors In The Ovary, Part I. Historical Perspective, General Principles, Mucinous Tumors Including The Krukenberg Tumor. *Adv Anat Pathol*, 2006 Sep; 13(5):205-27.
 Kiyokawa T, Young RH, Scully RE: Krukenberg Tumors Of The Ovary: A Clinicopathological Analysis Of 120 Cases With Emphasis On Their Variable Pathologic Manifestations. *Am J Surg Pathol*, 2006 Mar; 30(3):277-99.
 Vang R, Bague S, Tavassoli FA, Prat J: Signet-Ring Stromal Tumor Of The Ovary: Clinicopathologic Analysis And Comparison With Krukenberg Tumor. *Int J Gynecol Pathol*, 2004 Jan; 23(1):45-51.
 McGill F, Ritter DB, Rickard C, et al: Management Of Krukenberg Tumors: An 11-Year Experience And Review Of The Literature. *Prim Care Update Ob Gyns*, 1998 Jul 1; 5(4):157-8.
 Mandai M, Konishi I, Tsurata Y, et al: Krukenberg Tumor From An Occult Appendiceal Adenocarcinoid: A Case Report And Review Of The Literature. *Eur J Obstet Gynecol & Reprod Biol*, 2001 Jul; 97(1):90-5.
 Klein EA, Rosen MH: Bilateral Krukenberg Tumors Due To Appendiceal Mucinous Carcinoid. *Int J Gynecol Pathol*, 1996 Jan; 15(1):85-8.

Case No. 6 - Accession No. 30059

September, 2006

Bakersfield - Brenner's tumor, benign
Escondido - Brenner tumor
Glendale - Brenner tumor
Loma Linda University Residents - Brenner tumor
Mountain View (El Camino Pathology) - Brenner tumor
Orange (UCI Medical Center Residents) - Benign Brenner tumor
Palo Alto (Palo Alto Pathology) Granulosa cell tumor vs cellular fibroma with sex cord elements
Sacramento (U.C. Davis Residents) - Brenner tumor
San Diego (UCSD) - Brenner tumor
San Francisco (San Francisco General Hospital) - Sex cord tumor with annular tubules
Arkansas (University of Arkansas Medical Center) - Brenner tumor, ovary (1); Benign Brenner tumor (1)
Florida (Winter Haven Hospital) - Brenner tumor (2)
Georgia, Decatur - Brenner tumor
Illinois (Heartland Regional Medical Center) - Brenner tumor (benign)
Illinois (Loyola University Medical Center) - Brenner tumor
Kansas (Coffeyville Regional Medical Center) - Transitional cell (Brenner) tumor
Kansas (Peterson Laboratory Services) - Brenner tumor

Kansas (Physicians Reference Laboratory) - Brenner tumor (2)
Kentucky (University of Louisville Hospital) - Brenner tumor
Louisiana (Louisiana State University Health Science Center) - Brenner tumor
Maryland (University of Maryland Medical Center) - Brenner tumor
Maryland (Silver Springs) - Brenner tumor
Massachusetts (UMASS Pathology Residents) - Brenner tumor
Michigan (Henry Ford Hospital Residents) - Brenner tumor
Michigan (St. Joseph Mercy Hospital) - Brenner tumor
Michigan, Ann Arbor - Brenner tumor
Montana, Missoula - Brenner tumor
New York (Nassau University Medical Center) - Brenner tumor
New York (SUNY Downstate Medical Center) - Brenner tumor
North Carolina (Wake Forest University Medical Center) - Brenner tumor
North Carolina (Womack Army Medical Center) - Brenner tumor (4)
Ohio (Summa Health System Pathology Residency Program) - Brenner tumor
Ohio (University of Toledo/University Medical Center) - Brenner tumor
Oklahoma (Integrus Baptist Medical Center) - Benign transitional cell tumor (Brenner tumor)
Pennsylvania (Conemaugh Memorial Medical Center) - Benign Brenner's tumor
Pennsylvania (Drexel University College of Medicine) - Brenner tumor
Texas (Scott & White Hospital) - Brenner tumor
Texas, Lubbock - Brenner tumor
Texas, San Antonio - Brenner tumor
Texas, Sugarland - Brenner's tumor
Utah (University of Utah Pathology Residents) - Benign Brenner tumor
West Virginia (Wetzel County Hospital) - Brenner's tumor
Australia (Sullivan Nicolaides Pathology) - Brenner tumor
Canada (Pasqua Hospital) - Brenner tumor
Canada (University Hospital of Sherbrooke) - Brenner tumor
China (Sir Run Run Shaw Hospital) - Benign Brenner tumor
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Brenner tumor
Japan (Gunma University Hospital) - Brenner tumor
Japan (Hamamatsu University School of Medicine) - Brenner tumor, benign
Japan, Chiba - Brenner tumor
Puerto Rico (University of Puerto Rico) - Brenner tumor
Qatar (Hamad Medical Corporation) - Brenner's tumor (metaplastic)
Saudi Arabia (King Fahad National Guard Hospital) - Brenner tumor of ovary
Saudi Arabia (MCH) - Brenner tumour
Singapore (KK Women's and Children's Hospital) - Benign Brenner tumour
Spain (Povisa) - Brenner tumor
The Netherlands, Amstelveen - Brenner tumor
United Kingdom (Oxford Study Group) - Right Ovary – Brenner tumour

Case 6 - Diagnosis:

Brenner tumor, ovary
T-87000, M-90000

Case 6 - References:

- Takeuchi K, Kitazawa S, Wakahashi S, et al: A Case Of Virilizing Brenner Tumor In A Postmenopausal Woman With Stromal Androgenic Activity. *Int J Gynecol Pathol*, 2006 Jul; 25(3):230-2.
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- Logani S, Oliva E, Amin MB, et al: Immunoprofile Of Ovarian Tumors With Putative Transitional Cell (Urothelial) Differentiation Using Novel Urothelial Markers: Histogenetic And Diagnostic Implications. *Am J Surg Pathol*, 2003 Nov; 27(11):1434-41.
- Riedel I, Czernobilsky B, Lifschitz-Mercer B, et al: Brenner Tumors But Not Transitional Cell Carcinomas Of The Ovary Show Urothelial Differentiation: Immunohistochemical Staining Of Urothelial Markers, Including Cytokeratins And Uroplakins. *Virchows Archiv*, 2001 Feb; 438(2):181-91.
- Ordenez NG, Mackay B: Brenner Tumor Of the Ovary: A Comparative Immunohistochemical And Ultrastructural Study With Transitional Cell Carcinoma Of The Bladder. *Ultrastructural Pathology*, 2000 May-Jun; 24(3):157-67.

Bakersfield - Fibrothecoma
Escondido - Thecoma
Glendale - Fibrothecoma
Loma Linda University Residents - Cellular fibroma
Mountain View (El Camino Pathology) - Cellular fibrothecoma
Orange (UCI Medical Center Residents) - Fibrothecoma
Palo Alto (Palo Alto Pathology) - Fibroma/thecoma
Sacramento (U.C. Davis Residents) - Thecofibroma
San Diego (UCSD) - Fibrothecoma
San Francisco (San Francisco General Hospital) - Thecoma/fibroma
Arkansas (University of Arkansas Medical Center) - Fibrothecoma, ovary (1); Ovarian fibroma (1)
Florida (Winter Haven Hospital) - Thecoma (2)
Georgia, Decatur - Fibrothecoma
Illinois (Heartland Regional Medical Center) - Cellular fibroma
Illinois (Loyola University Medical Center) - Fibroma thecoma
Kansas (Coffeyville Regional Medical Center) - Cellular leiomyoma (rare mitoses)
Kansas (Peterson Laboratory Services) - Fibroma
Kansas (Physicians Reference Laboratory) - Luteinized thecoma (1); Fibroma (1)
Kentucky (University of Louisville Hospital) - Cellular fibroma
Louisiana (Louisiana State University Health Science Center) - Thecoma
Maryland (University of Maryland Medical Center) - Cellular fibroma
Maryland (Silver Springs) - Cellular fibroma
Massachusetts (UMASS Pathology Residents) - Fibrothecoma
Michigan (Henry Ford Hospital Residents) - Fibrothecoma
Michigan (St. Joseph Mercy Hospital) - Fibroma
Michigan, Ann Arbor - Adult granulosa cell tumor
Montana, Missoula - Cellular fibroma
New York (Nassau University Medical Center) - Cellular fibroma
New York (SUNY Downstate Medical Center) - Thecoma
North Carolina (Wake Forest University Medical Center) - Cellular fibroma
North Carolina (Womack Army Medical Center) - Fibrothecoma (4)
Ohio (Summa Health System Pathology Residency Program) - Fibrothecoma
Ohio (University of Toledo/University Medical Center) - Fibroma
Oklahoma (Integris Baptist Medical Center) - Cellular fibroma
Pennsylvania (Conemaugh Memorial Medical Center) - Fibrosarcoma, low grade
Pennsylvania (Drexel University College of Medicine) - Cellular fibroma
Texas (Scott & White Hospital) - Fibrothecoma
Texas, Lubbock - Granulosa cell tumor
Texas, San Antonio - Cellular fibroma
Texas, Sugarland - Thecoma
Utah (University of Utah Pathology Residents) - Fibrothecoma
West Virginia (Wetzel County Hospital) - Thecoma
Australia (Sullivan Nicolaides Pathology) - Fibro-Thecoma
Canada (Pasqua Hospital) - Cellular fibroma
Canada (University Hospital of Sherbrooke) - Cellular fibroma (mitotically active)
China (Sir Run Run Shaw Hospital) - Thecoma
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Fibrothecoma
Japan (Gunma University Hospital) - Cellular thecoma
Japan (Hamamatsu University School of Medicine) - Thecoma
Japan, Chiba - Fibrothecoma
Puerto Rico (University of Puerto Rico) - Fibroma/Fibrothecoma
Qatar (Hamad Medical Corporation) - Cellular fibroma (5); Fibrothecoma (2)
Saudi Arabia (King Fahad National Guard Hospital) - Cellular fibroma
Saudi Arabia (MCH) - Fibroma
Singapore (KK Women's and Children's Hospital) - Fibrothecoma
Spain (Povisa) - Cellular fibroma
The Netherlands, Amstelveen - Fibrothecoma
United Kingdom (Oxford Study Group) - Left ovary - Fibrothecoma

Case 7 - Diagnosis:

Fibrothecoma, ovary

T-87000, M-86000

Case 7 - References:

- Sakaki M, Hirokawa M, Horiguchi H, et al: Ovarian Fibrothecoma With Massive Edema. *J Med Invest*, 2000 Aug; 47(3-4):148-51.
- Knusel PR, Kubik-Huch RA, Komminoth R, et al: Ovarian Fibrothecoma: MR Imaging Findings And Differential Diagnosis. *Schweiz Rundsch Med Prax*, 2006 Feb; 22; 95(8):283-6.
- Yang GC, Mesia AF: Fine-Needle Aspiration Cytology Of Malignant Fibrothecoma Of The Ovary. *Diagn Cytopathol*, 1999 Oct; 21(4):284-6.
- Tiltman AJ, Haffajee Z: Sclerosing Stromal Tumors, Thecomas, And Fibromas Of The Ovary: An Immunohistochemical Profile. *Int J Gynecol Pathol*, 1999 Jul; 18(3):254-8.
- Movahedi-Lankarani S, Kurman RJ: Calretinin, A More Sensitive But Less Specific Marker Than Alpha-Inhibin For Ovarian Sex Cord-Stromal Neoplasms: An Immunohistochemical Study Of 215 Cases. *Am J Surg Pathol*, 2002 Nov; 26(11):1477-83.

Case No. 8 - Accession No. 30096

September, 2006

Bakersfield - Thymic carcinoma, well-differentiated
Escondido - Invasive thymoma
Glendale - Epithelial-rich thymoma, invasive
Loma Linda University Residents - Type B3 thymoma
Mountain View (El Camino Pathology) - Thymic carcinoma
Orange (UCI Medical Center Residents) - Thymic carcinoma
Palo Alto (Palo Alto Pathology) - Thymic carcinoma
Sacramento (U.C. Davis Residents) - Squamous cell carcinoma
San Diego (UCSD) - Atypical thymoma (Suster + Moran), type B3 (WHO), well-differentiated thymic carcinoma (Muller + Hermelink)
San Francisco (San Francisco General Hospital) - Thymoma
Arkansas (University of Arkansas Medical Center) - Atypical thymoma (type B3 thymoma, WHO), anterior mediastinum (1);
Invasive thymoma (atypical type, WHO type B3)
Florida (Winter Haven Hospital) - Malignant epithelial thymoma (2)
Georgia, Decatur - Invasive thymoma
Illinois (Heartland Regional Medical Center) - Epithelial thymoma with atypia, non-encapsulated
Illinois (Loyola University Medical Center) - Thymic carcinoid
Kansas (Coffeyville Regional Medical Center) - Thymoma, squamoid
Kansas (Peterson Laboratory Services) - Well-differentiated squamous cell carcinoma
Kansas (Physicians Reference Laboratory) - Thymic carcinoma (2)
Kentucky (University of Louisville Hospital) - Well-differentiated thymic carcinoma, squamous type
Louisiana (Louisiana State University Health Science Center) - Thymic squamous cell carcinoma
Maryland (University of Maryland Medical Center) - Thymic carcinoma
Maryland (Silver Springs) - Thymic carcinoma
Massachusetts (UMASS Pathology Residents) - Thymoma, type B3
Michigan (Henry Ford Hospital Residents) - Invasive atypical thymoma
Michigan (St. Joseph Mercy Hospital) - Thymoma
Michigan, Ann Arbor - Thymic carcinoma
Montana, Missoula - Thymic carcinoma
New York (Nassau University Medical Center) - Squamous cell carcinoma, thymic
New York (SUNY Downstate Medical Center) - Epithelioid thymoma (well-differentiated thymic carcinoma)
North Carolina (Wake Forest University Medical Center) - Type B3 thymoma
North Carolina (Womack Army Medical Center) - Thymic carcinoma (4)
Ohio (Summa Health System Pathology Residency Program) - Thymic carcinoma (Type C Thymoma)
Ohio (University of Toledo/University Medical Center) - Malignant fibrous histiocytoma
Oklahoma (Integrus Baptist Medical Center) - Atypical carcinoid tumor of thymus
Pennsylvania (Conemaugh Memorial Medical Center) - Thymic carcinoma, rule-out metastatic urothelial carcinoma
Pennsylvania (Drexel University College of Medicine) - Well-differentiated thymic carcinoma
Texas (Scott & White Hospital) - Thymoma
Texas, Lubbock - Metastatic squamous cell carcinoma
Texas, San Antonio - Atypical carcinoid
Texas, Sugarland - Thymic atypical carcinoid

Utah (University of Utah Pathology Residents) - Thymoma
West Virginia (Wetzel County Hospital) - Thymic carcinoma
Australia (Sullivan Nicolaides Pathology) - Thymic carcinoma
Canada (Pasqua Hospital) - Thymoma, type B3
Canada (University Hospital of Sherbrooke) - Type A thymoma with malignant transformation
China (Sir Run Run Shaw Hospital) - Thymic carcinoma/Squamous cell carcinoma
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Thymic carcinoma
Japan (Gunma University Hospital) - Thymoma, type C
Japan (Hamamatsu University School of Medicine) - Thymoma, type A
Japan, Chiba - Thymoma, type B3
Puerto Rico (University of Puerto Rico) - Invasive thymoma
Qatar (Hamad Medical Corporation) - Malignant thymoma (WHO type B3), mediastinum
Saudi Arabia (King Fahad National Guard Hospital) - Type B3 thymoma
Saudi Arabia (MCH) - Thymic carcinoma (squamous cell carcinoma)
Singapore (KK Women's and Children's Hospital) - Thymoma (type B3) with capsular invasion
Spain (Povisa) - Thymic carcinoma
The Netherlands, Amstelveen - Type B3 thymoma
United Kingdom (Oxford Study Group) - Thymus – Atypical carcinoid

Case 8 - Diagnosis:

Invasive/malignant thymoma (“thymic carcinoma”)
T-Y2300, M-8580/3

Case 8 - References:

Kurup A, Loehrer PJ Sr.: Thymoma And Thymic Carcinoma: Therapeutic Approaches. *Clin Lung Cancer*, 2004 Jul; 6(1):28-32. Review.
 Lara PN Jr.: Malignant Thymoma: Current Status And Future Directions. *Cancer Treat Rev*, 2000 Apr; 26(2):127-31. Review.
 Suster S, Moran CA: Thymoma Classification: Current Status And Future Trends. *Am J Clin Pathol*, 2006 Apr; 125(4):542-54.
 Sonobe S, Miyamoto H, Izumi H, et al: Clinical Usefulness Of The WHO Histological Classification Of Thymoma. *Annals Of Thoracic And Cardiovascular Surgery*, 2005 Dec; 11(6):367-73.
 Wright CD, Wain JC, Wong DR, et al: Predictors Of Recurrence In Thymic Tumors: Importance Of Invasion, World Health Organization Histology, And Size. *Journal Of Thoracic & Cardiovascular Surgery*, 2005 Nov; 130(5):1413-21.

Case No. 9 - Accession No. 30061

September, 2006

Bakersfield - Osteochondroma, malignant progression with chondrosarcoma
Escondido - Chondrosarcoma
Glendale - Low-grade chondrosarcoma secondary to osteochondroma
Loma Linda University Residents - Osteochondroma
Mountain View (El Camino Pathology) - Osteochondroma
Orange (UCI Medical Center Residents) - Well-differentiated Grade I chondrosarcoma
Palo Alto (Palo Alto Pathology) - Osteochondroma
Sacramento (U.C. Davis Residents) - Osteochondroma
San Diego (UCSD) - Periosteal osteosarcoma with prominent cartilage formation
San Francisco (San Francisco General Hospital) - Osteochondroma
Arkansas (University of Arkansas Medical Center) - Osteochondroma, humerus (2)
Florida (Winter Haven Hospital) - Chondroma (2)
Georgia, Decatur - Osteochondroma
Illinois (Heartland Regional Medical Center) - Periosteal chondrosarcoma
Illinois (Loyola University Medical Center) - Osteochondroma
Kansas (Coffeyville Regional Medical Center) - Osteochondroma
Kansas (Peterson Laboratory Services) - Osteochondroma
Kansas (Physicians Reference Laboratory) - Osteochondroma (1); Favor well-differentiated Grade I chondrosarcoma (1)
Kentucky (University of Louisville Hospital) - Osteochondroma
Louisiana (Louisiana State University Health Science Center) - Osteochondroma
Maryland (University of Maryland Medical Center) - Osteochondroma
Maryland (Silver Springs) - Chondrosarcoma arising from osteochondroma

Massachusetts (UMASS Pathology Residents) - Osteochondroma
Michigan (Henry Ford Hospital Residents) - Osteochondroma with necrosis, humerus
Michigan (St. Joseph Mercy Hospital) - Chondrosarcoma, low-grade
Michigan, Ann Arbor - Secondary chondrosarcoma arising in osteochondroma
Montana, Missoula - Well-differentiated chondrosarcoma
New York (Nassau University Medical Center) - Osteochondroma
New York (SUNY Downstate Medical Center) - Osteochondroma
North Carolina (Wake Forest University Medical Center) - Low-grade chondrosarcoma
North Carolina (Womack Army Medical Center) - Chondrosarcoma, low grade (4)
Ohio (Summa Health System Pathology Residency Program) - Osteochondroma
Ohio (University of Toledo/University Medical Center) - Low-grade chondrosarcoma
Oklahoma (Integrus Baptist Medical Center) - Osteochondroma
Pennsylvania (Conemaugh Memorial Medical Center) - Chondrosarcoma arising from osteochondroma
Pennsylvania (Drexel University College of Medicine) - Periosteal osteosarcoma
Texas (Scott & White Hospital) - Osteochondroma
Texas, Lubbock - Chondrosarcoma
Texas, San Antonio - Osteochondroma
Texas, Sugarland - Osteochondroma
Utah (University of Utah Pathology Residents) - Osteochondroma
West Virginia (Wetzel County Hospital) - Periosteal chondroma
Australia (Sullivan Nicolaides Pathology) - Osteochondroma
Canada (Pasqua Hospital) - Chondrosarcoma
Canada (University Hospital of Sherbrooke) - Low-grade chondrosarcoma in an osteochondroma/Osteochondroma with ischemic necrosis.
China (Sir Run Run Shaw Hospital) - Chondroma
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Chondrosarcoma, low-grade
Japan (Gunma University Hospital) - Osteochondroma
Japan (Hamamatsu University School of Medicine) - Osteochondroma
Japan, Chiba - Chondrosarcoma
Puerto Rico (University of Puerto Rico) - Osteochondroma (suspected Grade I chondrosarcoma)
Qatar (Hamad Medical Corporation) - Osteochondromatous exostosis, humerus
Saudi Arabia (King Fahad National Guard Hospital) - Osteochondroma
Saudi Arabia (MCH) - Osteochondroma
Singapore (KK Women's and Children's Hospital) - Low-grade chondrosarcoma arising from osteochondroma (correlate with films)
Spain (Povisa) - Osteochondroma
The Netherlands, Amstelveen - Chondrosarcoma
United Kingdom (Oxford Study Group) - Right humerus - Osteochondroma

Case 9 - Diagnosis:

Osteochondroma, humerus
T-11410, M-9210/0

Outside Consultation: Alberto G. Ayala, M.D. (The University of Texas MD Anderson Cancer Center): "Large osteochondroma."

Case 9 - References:

Tobias AM, Chang B: A Rare Brachial Artery Pseudoaneurysm 13 Years After Excision Of A Humeral Osteochondroma. *Ann Plast Surg*, 2004 Apr; 52(4):419-22.
 Kawakami T, Kimura A, Yamada M, et al: Localization Of Matrix Proteins Of Hard Tissue In Osteochondromas. *Eur J Med Res*, 2002 Jul 24; 7(7):335-9.
 Smith NC, Ellis AM, McCarthy S, McNaught P: Bizarre Parosteal Osteochondromatous Proliferation: A Review Of Seven Cases. *Aust N Z J Surg*, 1996 Oct; 66(10):694-7.
 Abramovici L, Steiner GC: Bizarre Parosteal Osteochondromatous Proliferation (Nora's Lesion): A Retrospective Study Of 12 Cases, 2 Arising In Long Bones. *Hum Pathol*, 2002 Dec; 33(12):1205-10.
 Carpintero P, Leon F, Zafra M, et al: Fractures Of Osteochondroma During Physical Exercise. *Am J Sports Med*, 2003 Nov-Dec; 31(6):1003-6.

Bakersfield - High-grade osteosarcoma
Escondido - Osteosarcoma
Glendale - High-grade osteosarcoma
Loma Linda University Residents - Osteosarcoma
Mountain View (El Camino Pathology) - Osteogenic sarcoma
Orange (UCI Medical Center Residents) - Osteogenic sarcoma
Palo Alto (Palo Alto Pathology) - Telangiectatic osteosarcoma
Sacramento (U.C. Davis Residents) - Osteosarcoma
San Diego (UCSD) - Osteogenic osteosarcoma
San Francisco (San Francisco General Hospital) - Telangiectatic osteosarcoma
Arkansas (University of Arkansas Medical Center) - Osteosarcoma, femur (1); Conventional osteosarcoma, high-grade
Florida (Winter Haven Hospital) - Osteosarcoma (2)
Georgia, Decatur - Osteosarcoma
Illinois (Heartland Regional Medical Center) - Osteosarcoma
Illinois (Loyola University Medical Center) - Osteosarcoma
Kansas (Coffeyville Regional Medical Center) - Osteosarcoma
Kansas (Peterson Laboratory Services) - Osteosarcoma
Kansas (Physicians Reference Laboratory) - Osteosarcoma (1); Favor osteoblastic osteosarcoma (1)
Kentucky (University of Louisville Hospital) - Osteosarcoma
Louisiana (Louisiana State University Health Science Center) - Osteogenic sarcoma
Maryland (University of Maryland Medical Center) - Osteosarcoma
Maryland (Silver Springs) - Osteosarcoma
Massachusetts (UMASS Pathology Residents) - Osteosarcoma
Michigan (Henry Ford Hospital Residents) - Osteosarcoma, femur
Michigan (St. Joseph Mercy Hospital) - Osteosarcoma with treatment effect
Michigan, Ann Arbor - Osteosarcoma
Montana, Missoula - Osteosarcoma
New York (Nassau University Medical Center) - Osteogenic sarcoma
New York (SUNY Downstate Medical Center) - Osteosarcoma
North Carolina (Wake Forest University Medical Center) - High-grade osteosarcoma with chemotherapy effect
North Carolina (Womack Army Medical Center) - Osteosarcoma (4)
Ohio (Summa Health System Pathology Residency Program) - Osteoblastic osteosarcoma
Ohio (University of Toledo/University Medical Center) - High-grade osteoblastic osteosarcoma
Oklahoma (Integrus Baptist Medical Center) - Osteosarcoma, with extensive necrosis (post-treatment)
Pennsylvania (Conemaugh Memorial Medical Center) - Osteosarcoma, low grade
Pennsylvania (Drexel University College of Medicine) - Osteoblastic osteosarcoma
Texas (Scott & White Hospital) - Osteosarcoma
Texas, Lubbock - Osteosarcoma
Texas, San Antonio - Osteosarcoma
Texas, Sugarland - Osteosarcoma
Utah (University of Utah Pathology Residents) - Conventional osteosarcoma
West Virginia (Wetzel County Hospital) - Osteogenic sarcoma
Australia (Sullivan Nicolaides Pathology) - Osteosarcoma
Canada (Pasqua Hospital) - Osteosarcoma
Canada (University Hospital of Sherbrooke) - Post-chemotherapy residual high-grade osteosarcoma
China (Sir Run Run Shaw Hospital) - Conventional osteosarcoma
Hong Kong (Pamela Youde Nethersole Eastern Hospital) - Osteosarcoma, post-chemotherapy effect
Japan (Gunma University Hospital) - Osteosarcoma
Japan (Hamamatsu University School of Medicine) - Osteosarcoma
Japan, Chiba - Osteosarcoma
Puerto Rico (University of Puerto Rico) - Osteosarcoma
Qatar (Hamad Medical Corporation) - Osteosarcoma, femur
Saudi Arabia (King Fahad National Guard Hospital) - Osteosarcoma
Saudi Arabia (MCH) - Osteosarcoma
Singapore (KK Women's and Children's Hospital) - Osteosarcoma with post-chemotherapy effect (abundant viable tumor)
Spain (Povisa) - Osteosarcoma
The Netherlands, Amstelveen - Osteosarcoma
United Kingdom (Oxford Study Group) - Femur – Osteosarcoma (post-chemotherapy)

Case 10 - Diagnosis:

Osteosarcoma, femur

T-11710, M-9180/3

Case 10 - References:

- Leavey PJ, Timmons C, Frawley W, et al: KAI-1 Expression In Pediatric High-Grade Osteosarcoma. *Pediatr Dev Pathol*, 2006 May-Jun; 9(3):219-24.
- Longhi A, Errani C, De Paolis M, et al: Primary Bone Osteosarcoma In The Pediatric Age: State Of The Art. *Cancer Treat Rev*, 2006 Oct; 32(6):423-36.
- Hendershot E, Pappo A, Malkin D, Sung L: Tumor Necrosis In Pediatric Osteosarcoma: Impact Of Modern Therapies. *J Pediatr Oncol Nurs*, 2006 Jul-Aug; 23(4):176-81.
- Park HR, Jung WW, Bacchini P, et al: Ezrin In Osteosarcoma: Comparison Between Conventional High-Grade And Central Low-Grade Osteosarcoma. *Pathol Res Pract*, 2006; 202(7):509-15.
- Li Y, Dang TA, Shen J, et al: Identification Of A Plasma Proteomic Signature To Distinguish Pediatric Osteosarcoma From Benign Osteochondroma. *Proteomics*, 2006 Jun; 6(11):3426-35.