



CALIFORNIA
TUMOR TISSUE REGISTRY

“GENERAL PATHOLOGY”

Minutes – Subscription B

September, 2003



SUGGESTED READING (General Topics from Recent Literature):

Atypical Lobular Hyperplasia As A Unilateral Predictor of Breast Cancer Risk: A Retrospective Cohort Study. Page DL, Schuyler PA, Dupont WD, et al. *Lancet*, 2003 Jan 11; 361(9352):125-29.

Medicine and Health Policy: Nicotine May Promote Tumour Growth, U.S. Researchers Suggest. Lawrence D. *Lancet*, 2003 Jan 11; 361.

Rules For Making Human Tumor Cells. Hahn WC, Weinberg RA. *New Engl J Med*, 2002 Nov 14; 347(20):1593-603.

The Mosaic That Is Our Genome. Paabo S. *Nature*, 2003 Jan 23; 421(6921):409-12.

DNA Replication and Recombination. Alberts B. *Nature*, 2003 Jan 23; 421(6921):431-5.

Ten Years of Tension: Single-Molecule DNA Mechanics. Bustamante C, Bryant Z, Smith SB. *Nature*, 2003 Jan 23; 421(6921):423-7.

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FILE DIAGNOSES

CTTR Subscription B

September, 2003

Case 1:

**Collagenous Fibroma (Desmoplastic Fibroblastoma), Breast
T-04000, M-88100**

Case 2:

**Lymphangioma, Spleen
T-07000, M-91700**

Case 3:

**Oncocytoma, Kidney
T-71000, M-82900**

Case 4:

**Sarcomatoid Renal Cell Carcinoma, Kidney
T-71000, M-83123**

Case 5:

**Poorly-Differentiated Carcinoma With Neuroendocrine Features, Vulva
T-80100, M-80413**

Case 6:

**Metastatic Follicular Variant of Papillary Carcinoma, Cervical Lymph Node
T-08200, M-83403**

Case 7:

**Poorly-Differentiated (Insular) Carcinoma, Thyroid
T-96000, M-80103**

Case 8:

**Myofibroblastoma, Breast
T-04000, M-88100**

Case 9:

**Mixed Malignant Germ Cell Tumor (Immature Teratoma, Embryonal Carcinoma, and Yolk
Sac Tumor)
T-78000, M-90801, M-90703; M-90713**

Case 10:

**Papillary Serous Carcinoma, Ovary
T-87000, M-80503**

Escondido - Neurofibroma
Glendale (Glendale Pathology Association) - Fibromatosis
Granada Hills - Benign Phyllodes tumor
Loma Linda (LLUMC Residents) - Collagenous fibroma versus burn-out nodular fasciitis
Los Angeles (LAC-USC Medical Center) - PASH
Orange (UCI Medical Center Residents) - Fibromatosis
Sacramento (U.C. Davis Medical Center) - Fibroma/Fibromatosis
San Francisco (San Francisco General Hospital) - Fibromatosis
Tustin Ranch - Solitary fibrous tumor
Arizona (Phoenix Memorial Hospital) - Fibromatosis, breast
Arkansas (University of Arkansas Medical Center) - Fibromatosis (1); Desmoplastic fibroblastoma, breast (1)
Colorado, Denver - Fibroma
Florida (St. Joseph's Hospital) - Benign spindle cell tumor, favor neurofibroma
Florida (Winter Haven Hospital) - Fibroma
Florida, Ocala - Desmoid
Georgia, Decatur - Fibromatosis
Illinois (Heartland Regional Medical Center) - Benign fibrous tumor, favor fibrous hamartoma
Kansas (Coffeyville Regional Medical Center) - Pseudoangiomatous hyperplasia, breast
Kansas, Manhattan - Solitary fibrous tumor
Kentucky (University of Louisville Hospital) - Fibroma vs. neurofibroma
Louisiana (LSUHSC) - Desmoplastic fibroma
Maryland (Johns Hopkins Medical Center) - Fibromatosis
Maryland (National Cancer Institute) - Mammary fibromatosis
Maryland (National Naval Medical Center) - Solitary fibrous tumor (10); Extra-abdominal fibromatosis (5)
Michigan (Henry Ford Hospital) - Nodular fasciitis, fibromatosis
Michigan (St. Joseph Mercy Hospital) - Solitary fibrous tumor (1), Fibromatosis (1)
Michigan (St. Mary's Hospital) - Fibrous tumor
Michigan (Spectrum Health) - Fibrous tumor
Mississippi (University of Mississippi Medical Center) - Fibromatosis
Missouri (Ferguson's Medical Lab) - Fibromatosis
New Mexico (University of New Mexico) - Fibrous tumor of breast
New York (Nassau University Medical Center) - Angiofibroma/solitary fibrous tumor
New York (New York Presbyterian Hospital) - Solitary fibrous tumor
New York (Stony Brook University Hospital) - Fibrous tumor (fibrous mastopathy)
Ohio (Medical College of Ohio) - Benign fibrous histiocytoma
Ohio, Columbus - Fibrous tumor
Pennsylvania (Allegheny General Hospital) - Fibromatosis
Pennsylvania (Memorial Medical Center) - Cellular angiofibroma/fibromatosis
Pennsylvania (Magee Women's Hospital) - Fibromatosis
Texas (Brown & Associates Medical Lab) - Neurofibroma
Texas (Scott & White Memorial Hospital) - Myofibroblastoma
Texas, Lubbock - Hamartoma
Texas, San Antonio - Fibromatosis vs. collagenous fibroma
Utah (University of Utah) - Benign spindle stromal tumor
Washington, D.C. - Fibroma
Canada (CUSI, Site Fleurimont) - Fibrous tumor
Canada (University of Calgary, Foothills Hospital) - Solitary fibrous tumor
Canada (University of Saskatchewan Royal University Hospital) - Nodular fasciitis, breast
China (Sir Run Run Shaw Hospital) - Fibroma
Japan (Hamamatsu University School of Medicine) - Pseudo-angiomatous stromal hyperplasia
Japan (Gunma University Hospital) - Fibrous tumor, breast
Japan (Nagoya National Hospital) - Breast - Fibrous tumor
Japan, Chiba - Fibromatosis of breast
Puerto Rico (University of Puerto Rico) - Pseudo-angiomatous stromal hyperplasia
Qatar, Doha - Neurofibroma (4); Solitary fibrous tumor (2)
Spain (Povisa) - Fibrous tumor
The Netherlands, Amstelveen - Fibromatosis

Case 1 - Diagnosis:**Collagenous Fibroma (Desmoplastic Fibroblastoma), Breast**

Editor's Note: The tumor's hypocellularity and lack of fascicular growth help distinguish it from fibromatosis. (drc)

Case 1 - References:

- Miettinen M, Fetsch JE: Collagenous Fibroma (Desmoplastic Fibroma): A Clinicopathologic Analysis of 63 Cases of A Distinctive Soft Tissue Lesion With Stellate-Shaped Fibroblasts. *Hum Pathol*, 1998 Jul; 29(7):676-82.
- Ide F, Shimoyama T, Horie N, Tanaka H: Collagenous Fibroma (Desmoplastic Fibroblastoma) Presenting In A Parotid Mass. *J Oral Pathol Med*, 1999 Nov; 28(10):465-8. Review.
- Fukunaga M, Ushigome S: Collagenous Fibroma (Desmoplastic Fibroblastoma): A Distinctive Fibroblastic Soft Tissue Tumor. *Adv Anat Pathol*, 1999 Sep; 6(5):275-80.
- Hasegawa T, Shimoda T, Hirohashi S, et al: Collagenous Fibroma (Desmoplastic Fibroblastoma): Report of Four Cases and Review of the Literature. *Arch Pathol Lab Med*, 1998 May; 122(5):455-60.

Case No. 2, Accession No. 29689

September, 2003

Escondido - Lymphangioma
Glendale (Glendale Pathology Association) - Hemangioma
Granada Hills - Splenic cystic lymphangioma
Loma Linda (LLUMC Residents) - Cavernous lymphangioma, spleen
Los Angeles (LAC-USC Medical Center) - Vascular tumor: Lymphangioma, littoral cell angioma, hemangioma, peliosis - need CD31, CD34, CD68, S-100 protein
Orange (UCI Medical Center Residents) - Splenic lymphangioma
Sacramento (U.C. Davis Medical Center) - Lymphangioma
San Francisco (San Francisco General Hospital) - Lymphangiomatosis
Tustin Ranch - Littoral cell angioma
Arizona (Phoenix Memorial Hospital) - Hemangioma, spleen
Arkansas (University of Arkansas Medical Center) - Lymphangioma, spleen (2)
Colorado, Denver - Lymphangioma
Florida (St. Joseph's Hospital) - Lymphangiomatosis
Florida (Winter Haven Hospital) - Lymphangioma
Florida, Ocala - Hemangioma
Georgia, Decatur - Hemangioma of spleen
Illinois (Heartland Regional Medical Center) - Lymphangioma
Kansas (Coffeyville Regional Medical Center) - Cystic lymphangioma of spleen
Kansas, Manhattan - Lymphangioma
Kentucky (University of Louisville Hospital) - Lymphangioma vs. hemangioma
Louisiana (LSUHSC) - Lymphangioma
Maryland (Johns Hopkins Medical Center) - Lymphangiomatosis
Maryland (National Cancer Institute) - Splenic hemangiolymphangioma
Maryland (National Naval Medical Center) - Lymphangioma (14); Hemangioma (1)
Michigan (Henry Ford Hospital) - Lymphangioma, cavernous hemangioma
Michigan (St. Joseph Mercy Hospital) - Lymphangioma
Michigan (St. Mary's Hospital) - Lymphangioma
Michigan (Spectrum Health) - Angioma
Mississippi (University of Mississippi Medical Center) - Lymphangioma versus mesothelial cyst
Missouri (Ferguson's Medical Lab) - Lymphangioma
New Mexico (University of New Mexico) - Lymphangioma
New York (Nassau University Medical Center) - Lymphangioma
New York (New York Presbyterian Hospital) - Lymphangioma
New York (Stony Brook University Hospital) - Splenic lymphangioma
Ohio (Medical College of Ohio) - Splenic lymphangioma
Ohio, Columbus - Lymphangioma
Pennsylvania (Allegheny General Hospital) - Arteriovenous malformation
Pennsylvania (Memorial Medical Center) - Lymphangioma
Pennsylvania (Magee Women's Hospital) - Lymphangioma
Texas (Brown & Associates Medical Lab) - Lymphangiomatosis
Texas (Scott & White Memorial Hospital) - Lymphangioma
Texas, Lubbock - False cysts
Texas, San Antonio - Lymphangioma

Utah (University of Utah) - Splenic lymphangioma
Washington, D.C. - Hemangioma
Canada (CUSL Site Fleurimont) - Lymphangioma
Canada (University of Calgary, Foothills Hospital) - Lymphangioma
Canada (University of Saskatchewan Royal University Hospital) - Lymphangioma, spleen
China (Sir Run Run Shaw Hospital) - Angioma
Japan (Hamamatsu University School of Medicine) - Splenic lymphangioma
Japan (Gunma University Hospital) - Hemangioma, spleen
Japan (Nagoya National Hospital) - Spleen - Lymphangioma
Japan, Chiba - Hemangioma of spleen
Puerto Rico (University of Puerto Rico) - Hemangioma
Qatar, Doha - Splenic hemangioma
Spain (Povisa) - Splenic lymphangioma
The Netherlands, Amstelveen - Splenic lymphangioma

Case 2 - Diagnosis:

Lymphangioma, Spleen
T-07000, M-91700

Case 2 - References:

Stabile F, Trecate G, De Silvestri A: Magnetic Resonance Diagnosis of Large Cystic Lymphangioma of the Spleen. *Radiol Med (Torino)*, 1999 Mar; 97(3):201-2.
 Gidaro GS: Cystic Splenic Disease of Surgical Interest. *G Chir*, 1997 Oct; 18(10):555-9.
 Wan YL, Cheung YC, Lui KW, et al: Ultrasonographic Findings and Differentiation of Benign and Malignant Focal Splenic Lesions. *Postgrad Med J*, 2000 Aug; 76(898):488-93.
 Chan KW, Saw D: Distinctive Multiple Lymphangiomas of the Spleen. *J Pathol*, 1980 May; 131(1):75-81.
 Peitzman AB, Ford HR, Harbrecht BG, et al: Injury to the Spleen. *Curr Probl Surg*, 2001 Dec; 38(12):932-1008. Review. (Good Anatomic Review)

Case No. 3, Accession No. 28748

September, 2003

Escondido - Oncocytoma
Glendale (Glendale Pathology Association) - Renal oncocytoma
Granada Hills - Clear cell carcinoma, "kidney"
Loma Linda (LLUMC Residents) - Chromophobe (oncocytic) renal cell carcinoma, Grade II
Los Angeles (LAC-USC Medical Center) - Oncocytoma versus chromophobe RCC (renal cell carcinoma) - Hale's colloidal iron, Electron microscopy
Orange (UCI Medical Center Residents) - Oncocytoma
Sacramento (U.C. Davis Medical Center) - Renal oncocytoma
San Francisco (San Francisco General Hospital) - Oncocytoma
Tustin Ranch - Renal oncocytoma
Arizona (Phoenix Memorial Hospital) - Oncocytoma, kidney
Arkansas (University of Arkansas Medical Center) - Oncocytoma, kidney (2)
Colorado, Denver - Renal cell carcinoma
Florida (St. Joseph's Hospital) - Oncocytoma
Florida (Winter Haven Hospital) - Oncocytoma
Florida, Ocala - Oncocytoma
Georgia, Decatur - Oncocytoma
Illinois (Heartland Regional Medical Center) - Oncocytoma
Kansas (Coffeyville Regional Medical Center) - Renal cell carcinoma, granular cell type
Kansas, Manhattan - Oncocytoma
Kentucky (University of Louisville Hospital) - Chromophobe renal cell carcinoma
Louisiana (LSUHSC) - Oncocytoma
Maryland (Johns Hopkins Medical Center) - Oncocytoma
Maryland (National Cancer Institute) - Renal oncocytoma
Maryland (National Naval Medical Center) - Oncocytoma (11); Renal cell carcinoma, oncocytic, granular cell type (4)
Michigan (Henry Ford Hospital) - Oncocytoma
Michigan (St. Joseph Mercy Hospital) - Oncocytoma
Michigan (St. Mary's Hospital) - Oncocytoma
Michigan (Spectrum Health) - Clear cell carcinoma

Mississippi (University of Mississippi Medical Center) - Oncocytoma
Missouri (Ferguson's Medical Lab) - Oncocytoma
New Mexico (University of New Mexico) - Oncocytoma
New York (Nassau University Medical Center) - Clear cell RCC (renal cell carcinoma), low nuclear grade
New York (New York Presbyterian Hospital) - Oncocytoma
New York (Stony Brook University Hospital) - Renal oncocytoma
Ohio (Medical College of Ohio) - Renal oncocytoma
Ohio, Columbus - Oncocytoma
Pennsylvania (Allegheny General Hospital) - Oncocytoma
Pennsylvania (Memorial Medical Center) - Renal cell carcinoma, chromophobe type
Pennsylvania (Magee Women's Hospital) - Oncocytoma
Texas (Brown & Associates Medical Lab) - Renal cell carcinoma, granular cell type
Texas (Scott & White Memorial Hospital) - Oncocytoma
Texas, Lubbock - Oncocytoma
Texas, San Antonio - Oncocytoma
Utah (University of Utah) - Oncocytoma
Washington, D.C. - Renal cell carcinoma, granular cell
Canada (CUSI, Site Fleurimont) - Oncocytoma
Canada (University of Calgary, Foothills Hospital) - Oncocytoma
Canada (University of Saskatchewan Royal University Hospital) - Renal cell carcinoma, clear cell variant
China (Sir Run Run Shaw Hospital) - Oncocytoma
Japan (Hamamatsu University School of Medicine) - Oncocytic adenoma
Japan (Gunma University Hospital) - Oncocytoma, kidney
Japan (Nagoya National Hospital) - Kidney - Oncocytoma
Japan, Chiba - Oncocytoma of kidney
Puerto Rico (University of Puerto Rico) - Renal cell carcinoma, chromophobe cell type
Qatar, Doha - Renal cell carcinoma - conventional
Spain (Povisa) - Oncocytoma
The Netherlands, Amstelveen - Renal oncocytoma

CASE 3 - Diagnosis:

Oncocytoma, Kidney

T-71000, M-82900

Case 3 - References:

Moch H, Gasser T, Amin MB, et al: Prognostic Utility of the Recently Recommended Histologic Classification and Revised TNM Staging System of Renal Cell Carcinoma: A Swiss Experience With 588 Tumors. *Cancer*, 2000 Aug 1; 89(3):604-14.
 Amin MB, Amin MB, Tamboli P, et al: Prognostic Impact of Histologic Subtyping of Adult Renal Epithelial Neoplasm: An Experience of 405 Cases. *Am J Surg Pathol*, 2002 Mar; 26(3):281-91.
 Chao DH, Zisman A, Pantuck AJ, et al: Changing Concepts In The Management of Renal Oncocytoma. *Urology*, 2002 May; 59(5):635-42. Review.
 Tickoo SK, Reuter VE, Amin MB, et al: Renal Oncocytosis: A Morphologic Study of Fourteen Cases. *Am J Surg Pathol*, 1999 Sep; 23(9):1094-101.
 Stopyra GA, Warhol MJ, Mulhaupt HA: Cytokeratin 20 Immunoreactivity in Renal Oncocytomas. *J Histochem Cytochem*, 2001 Jul; 49(7):919-20.
 Reuter VE: Renal Tumors Exhibiting Granular Cytoplasm. *Semin Diagn Pathol*, 1999 May; 16(2):135-45.

Case No. 4, Accession No. 29686

September, 2003

Escondido - Angiomyolipoma
Glendale (Glendale Pathology Association) - Renal cell carcinoma, sarcomatoid
Granada Hills - Sarcomatoid renal cell carcinoma
Loma Linda (LLUMC Residents) - Sarcomatoid variant of renal cell carcinoma
Los Angeles (LAC-USC Medical Center) - Sarcomatoid RCC (renal cell carcinoma)
Orange (UCI Medical Center Residents) - Sarcomatoid carcinoma
Sacramento (U.C. Davis Medical Center) - Sarcomatoid renal cell carcinoma
San Francisco (San Francisco General Hospital) - Leiomyosarcoma, Grade 3
Tustin Ranch - Sarcomatoid renal cell carcinoma
Arizona (Phoenix Memorial Hospital) - Sarcomatoid carcinoma, kidney

Arkansas (University of Arkansas Medical Center) - Malignant transformation in angiomyolipoma (1); sarcomatoid renal cell carcinoma (1)

Colorado, Denver - Malignant fibrous histiocytoma

Florida (St. Joseph's Hospital) - Sarcomatoid renal cell carcinoma

Florida (Winter Haven Hospital) - Malignant fibrous histiocytoma

Florida, Ocala - Leiomyosarcoma

Georgia, Decatur - Sarcomatoid carcinoma

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

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

Kansas, Manhattan - High grade sarcoma, consistent with malignant fibrous histiocytoma

Kentucky (University of Louisville Hospital) - Sarcomatoid renal cell carcinoma

Louisiana (LSUHSC) - Sarcomatoid renal cell carcinoma

Maryland (Johns Hopkins Medical Center) - Leiomyosarcoma

Maryland (National Cancer Institute) - Leiomyosarcoma

Maryland (National Naval Medical Center) - Renal cell carcinoma, spindle cell {sarcomatoid} (15)

Michigan (Henry Ford Hospital) - Sarcomatoid renal cell carcinoma

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

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

Michigan (Spectrum Health) - Sarcomatoid carcinoma

Mississippi (University of Mississippi Medical Center) - Leiomyosarcoma versus sarcomatoid renal cell carcinoma

Missouri (Ferguson's Medical Lab) - Sarcomatoid RCC (renal cell carcinoma)

New Mexico (University of New Mexico) - Malignant solitary fibrous tumor

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

New York (New York Presbyterian Hospital) - Sarcomatoid renal cell carcinoma

New York (Stony Brook University Hospital) - Sarcomatoid renal cell carcinoma

Ohio (Medical College of Ohio) - Sarcomatoid renal cell carcinoma

Ohio, Columbus - Malignant spindle cell tumor

Pennsylvania (Allegheny General Hospital) - Sarcomatoid renal cell carcinoma

Pennsylvania (Memorial Medical Center) - Sarcomatoid renal cell carcinoma/leiomyosarcoma

Pennsylvania (Magee Women's Hospital) - Sarcomatoid renal carcinoma

Texas (Brown & Associates Medical Lab) - Renal cell carcinoma, sarcomatoid type

Texas (Scott & White Memorial Hospital) - Favor sarcomatoid renal cell carcinoma

Texas, Lubbock - Sarcomatoid renal cell carcinoma

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

Utah (University of Utah) - Sarcomatoid renal cell carcinoma

Washington, D.C. - Sarcomatoid carcinoma

Canada (CUSI, Site Fleurimont) - Leiomyosarcoma

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

Canada (University of Saskatchewan Royal University Hospital) - Malignant spindle cell tumor, kidney

China (Sir Run Run Shaw Hospital) - Sarcomatoid carcinoma

Japan (Hamamatsu University School of Medicine) - Rhabdomyosarcoma

Japan (Gunma University Hospital) - Spindle cell carcinoma, kidney

Japan (Nagoya National Hospital) - Kidney - Sarcomatoid renal cell carcinoma

Japan, Chiba - Sarcomatoid renal cell carcinoma

Puerto Rico (University of Puerto Rico) - Sarcoma (leiomyosarcoma)/Renal cell carcinoma, sarcomatoid type

Qatar, Doha - Sarcomatoid renal cell carcinoma

Spain (Povisa) - Sarcomatoid carcinoma versus sarcoma

The Netherlands, Amstelveen - Sarcomatoid renal carcinoma

Case 4 - Diagnosis:

Sarcomatoid Renal Cell Carcinoma, Kidney

T-71000, M-83123

Case 4 - References:

Reuter VE: Sarcomatoid Lesions of the Urogenital Tract. *Semin Diagn Pathol*, 1993 May; 10(2):188-201. Review.

Khorsand L, Ro JY, Mackay B, et al: Sarcomatoid Renal Cell Carcinoma: An Immunocytochemical and Ultrastructural Study of 26 Cases. *Lab Invest*, 1986; 54:31A.

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

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

Case No. 5, Accession No. 28132

September, 2003

Escondido - Small cell carcinoma
Glendale (Glendale Pathology Association) - Metastatic carcinoma
Granada Hills - Neuroendocrine tumor
Loma Linda (LLUMC Residents) - Poorly-differentiated neuroendocrine carcinoma (Merkel carcinoma)
Los Angeles (LAC-USC Medical Center) - Merkel cell carcinoma
Orange (UCI Medical Center Residents) - Squamous cell carcinoma with small cell features
Sacramento (U.C. Davis Medical Center) - Neuroendocrine carcinoma
San Francisco (San Francisco General Hospital) - Small cell neuroendocrine carcinoma
Tustin Ranch - Basaloid squamous cell carcinoma versus Merkel cell carcinoma
Arizona (Phoenix Memorial Hospital) - Neuroendocrine carcinoma, large cell
Arkansas (University of Arkansas Medical Center) - Malignant epithelial neoplasm, primary versus metastasis (1); lymphatic vascular carcinomatosis (squamous cell carcinoma, vulva) (1)
Colorado, Denver - Small cell neuroendocrine carcinoma
Florida (St. Joseph's Hospital) - Small cell (Merkel cell) carcinoma
Florida (Winter Haven Hospital) - Metastatic undifferentiated carcinoma
Florida, Ocala - Poorly-differentiated carcinoma with neuroendocrine features
Georgia, Decatur - Small cell neuroendocrine carcinoma
Illinois (Heartland Regional Medical Center) - Poorly-differentiated carcinoma, favor squamous cell type
Kansas (Coffeyville Regional Medical Center) - Squamous cell carcinoma, poorly-differentiated
Kansas, Manhattan - Merkel cell carcinoma
Kentucky (University of Louisville Hospital) - Merkel cell vs. small cell carcinoma
Louisiana (LSUHSC) - Infiltrating carcinoma, probably neuroendocrine, possibly Merkel cell carcinoma
Maryland (Johns Hopkins Medical Center) - Small cell carcinoma
Maryland (National Cancer Institute) - Merkel cell carcinoma
Maryland (National Naval Medical Center) - Merkel cell carcinoma (14); metastatic small cell carcinoma (1)
Michigan (Henry Ford Hospital) - Merkel cell carcinoma/neuroendocrine carcinoma
Michigan (St. Joseph Mercy Hospital) - Basaloid squamous cell carcinoma
Michigan (St. Mary's Hospital) - Merkel cell carcinoma
Michigan (Spectrum Health) - Carcinoma, high grade
Mississippi (University of Mississippi Medical Center) - Small cell carcinoma
Missouri (Ferguson's Medical Lab) - Merkel cell tumor
New Mexico (University of New Mexico) - Merkel cell tumor
New York (Nassau University Medical Center) - Merkel cell tumor
New York (New York Presbyterian Hospital) - Poorly-differentiated neuroendocrine carcinoma
New York (Stony Brook University Hospital) - Small blue cell tumor, favor Merkel cell carcinoma
Ohio (Medical College of Ohio) - Small cell carcinoma
Ohio, Columbus - Undifferentiated carcinoma
Pennsylvania (Allegheny General Hospital) - Small cell carcinoma
Pennsylvania (Memorial Medical Center) - Small cell carcinoma
Pennsylvania (Magee Women's Hospital) - Neuroendocrine carcinoma
Texas (Brown & Associates Medical Lab) - Angiosarcoma
Texas (Scott & White Memorial Hospital) - Undifferentiated carcinoma with neuroendocrine features
Texas, Lubbock - Angiosarcoma
Texas, San Antonio - Neuroendocrine carcinoma
Utah (University of Utah) - Merkel cell carcinoma
Washington, D.C. - Adenocarcinoma, poorly-differentiated
Canada (CUSI, Site Fleurimont) - Merkel cell tumor
Canada (University of Calgary, Foothills Hospital) - Merkel cell carcinoma
Canada (University of Saskatchewan Royal University Hospital) - Small blue cell tumor - ? Merkel cell tumor
China (Sir Run Run Shaw Hospital) - Merkel cell tumor
Japan (Hamamatsu University School of Medicine) - Poorly-differentiated squamous cell carcinoma
Japan (Gunma University Hospital) - Undifferentiated carcinoma
Japan (Nagoya National Hospital) - Vulva - Merkel cell carcinoma
Japan, Chiba - Malignant melanoma of vulva
Puerto Rico (University of Puerto Rico) - Small cell carcinoma/neuroendocrine carcinoma

Qatar, Doha - Poorly-differentiated neuroendocrine carcinoma
Spain (Povisa) - Merkel cell (neuroendocrine) carcinoma
The Netherlands, Amstelveen - Small cell cancer

Case 5 - Diagnosis:

**Poorly-Differentiated Carcinoma With Neuroendocrine Features, Vulva
T-80100, M-80413**

Case 5 - References:

Cardosi RJ, Speights A, Fiorica JV, et al: Bartholin's Gland Carcinoma: A 15-Year Experience. *Gynecol Oncol*, 2001 Aug; 82(2):247-51.
Eichhorn JH, Young RH: Neuroendocrine Tumors of the Genital Tract. *Am J Clin Pathol*, 2001 Jun; 115 Suppl pS94-112.

Case No. 6, Accession No. 29371

September, 2003

Escondido - Metastatic follicular carcinoma
Glendale (Glendale Pathology Association) - Metastatic follicular carcinoma
Granada Hills - Metastatic papillary carcinoma (follicular type)
Loma Linda (LLUMC Residents) - Metastatic follicular carcinoma
Los Angeles (LAC-USC Medical Center) - Papillary carcinoma of thyroid - follicular variant
Orange (UCI Medical Center Residents) - Metastatic thyroid follicular carcinoma
Sacramento (U.C. Davis Medical Center) - Nodular hyperplasia in ectopic thyroid/follicular adenoma
San Francisco (San Francisco General Hospital) - Follicular carcinoma
Tustin Ranch - Metastatic papillary thyroid carcinoma, follicular variant
Arizona (Phoenix Memorial Hospital) - Follicular carcinoma, metastatic from thyroid
Arkansas (University of Arkansas Medical Center) - Insular carcinoma, metastatic (thyroid primary) (1); Metastatic papillary carcinoma (thyroid), lymph node (1)
Colorado, Denver - Metastatic papillary carcinoma
Florida (St. Joseph's Hospital) - Follicular variant of papillary carcinoma
Florida (Winter Haven Hospital) - Papillary carcinoma
Florida, Ocala - Follicular carcinoma
Georgia, Decatur - Papillary carcinoma, follicular variant
Illinois (Heartland Regional Medical Center) - Metastatic well-differentiated follicular carcinoma of thyroid origin
Kansas (Coffeyville Regional Medical Center) - Residual thyroid vs. parathyroid adenoma
Kansas, Manhattan - Follicular variant of papillary carcinoma
Kentucky (University of Louisville Hospital) - Follicular neoplasm/follicular carcinoma
Louisiana (LSUHSC) - Follicular carcinoma with insular component
Maryland (Johns Hopkins Medical Center) - Metastatic follicular variant of papillary thyroid carcinoma
Maryland (National Cancer Institute) - Metastatic follicular carcinoma
Maryland (National Naval Medical Center) - Metastatic papillary thyroid carcinoma (15)
Michigan (Henry Ford Hospital) - Follicular carcinoma
Michigan (St. Joseph Mercy Hospital) - Metastatic papillary thyroid carcinoma
Michigan (St. Mary's Hospital) - Metastatic thyroid carcinoma
Michigan (Spectrum Health) - Follicular carcinoma
Mississippi (University of Mississippi Medical Center) - Parathyroid adenoma
Missouri (Ferguson's Medical Lab) - Follicular variant of papillary carcinoma, metastatic
New Mexico (University of New Mexico) - Parasitic thyroid nodule
New York (Nassau University Medical Center) - Metastatic follicular carcinoma of thyroid
New York (New York Presbyterian Hospital) - Metastatic follicular variant of papillary thyroid carcinoma
New York (Stony Brook University Hospital) - Metastatic papillary carcinoma of thyroid, follicular variant, possibly tall cell variant
Ohio (Medical College of Ohio) - Metastatic papillary carcinoma of thyroid, follicular variant
Ohio, Columbus - Follicular neoplasm
Pennsylvania (Allegheny General Hospital) - Metastatic follicular carcinoma of the thyroid
Pennsylvania (Memorial Medical Center) - Follicular carcinoma
Pennsylvania (Magee Women's Hospital) - Follicular variant papillary carcinoma, metastatic
Texas (Brown & Associates Medical Lab) - Follicular carcinoma, metastatic
Texas (Scott & White Memorial Hospital) - Parathyroid adenoma
Texas, Lubbock - Metastatic follicular carcinoma
Texas, San Antonio - Mets PTC (papillary thyroid carcinoma), follicular variant
Utah (University of Utah) - Metastatic follicular carcinoma

Washington, D.C. - Papillary carcinoma, follicular variant, metastatic
Canada (CUSI, Site Fleurimont) - Follicular carcinoma, metastatic
Canada (University of Calgary, Foothills Hospital) - Metastatic thyroid carcinoma
Canada (University of Saskatchewan Royal University Hospital) - Metastatic papillary carcinoma, follicular variant
China (Sir Run Run Shaw Hospital) - Ectopic thyroid adenoma/metastatic thyroid carcinoma?
Japan (Hamamatsu University School of Medicine) - Follicular carcinoma
Japan (Gunma University Hospital) - Follicular carcinoma, metastatic to cervical lymph node
Japan (Nagoya National Hospital) - Parathyroid adenoma
Japan, Chiba - Metastatic follicular carcinoma in a cervical lymph node
Puerto Rico (University of Puerto Rico) - Follicular carcinoma, metastatic from thyroid
Qatar, Doha - Aberrant lateral thyroid
Spain (Povisa) - Metastatic thyroid carcinoma, follicular pattern (probably papillary carcinoma)
The Netherlands, Amstelveen - Follicular thyroid carcinoma

Case 6 - Diagnosis:

Metastatic Follicular Variant of Papillary Carcinoma, Cervical Lymph Node T-08200, M-83403

Case 6 - References:

Pilotti S, Collini P, Mariani L, et al: Insular Carcinoma: A Distinct De Novo Entity Among Follicular Carcinomas of The Thyroid Gland. *Am J Surg Pathol*, 1997 Dec; 21(12):1466-73.
 Giard RW, Hermans J: Use and Accuracy of Fine-Needle Aspiration Cytology In Histologically Proven Thyroid Carcinoma: An Audit Using A National Pathology Database. *Cancer*, 2000 Dec 25; 90(6):330-4.
 Flanagan D, Gibb P, Skene A, et al: What Should We Do? Papillary Thyroid Carcinoma In A Lymph Node But Normal Thyroid Tissue -- How Should We Proceed? *Eur J Surg Oncol*, 2000 Mar; 26(2):177-80.
 Zhang Y, Fraser JL, Wang HH: Morphologic Predictors of Papillary Carcinoma on Fine-Needle Aspiration of Thyroid With ThinPrep Preparations. *Diagn Cytopathol*, 2001 Jun; 24(6):378-83.

Case No. 7, Accession No. 29121

September, 2003

Escondido - Medullary carcinoma
Glendale (Glendale Pathology Association) - Insular carcinoma
Granada Hills - Poorly-differentiated (insular) carcinoma of thyroid
Loma Linda (LLUMC Residents) - Follicular carcinoma (capsular & vascular invasion)
Los Angeles (LAC-USC Medical Center) - Insular variant - follicular carcinoma
Orange (UCI Medical Center Residents) - Poorly-differentiated carcinoma, in-situ type
Sacramento (U.C. Davis Medical Center) - Follicular carcinoma/Follicular variant of papillary thyroid carcinoma
San Francisco (San Francisco General Hospital) - Follicular carcinoma
Tustin Ranch - Follicular carcinoma, microfollicular and solid type
Arizona (Phoenix Memorial Hospital) - Insular carcinoma (poorly-differentiated thyroid carcinoma)
Arkansas (University of Arkansas Medical Center) - Poorly-differentiated follicular carcinoma, insular carcinoma (1); insular carcinoma, thyroid (1)
Colorado, Denver - Follicular carcinoma
Florida (St. Joseph's Hospital) - Insular carcinoma
Florida (Winter Haven Hospital) - Insular carcinoma
Florida, Ocala - Insular carcinoma
Georgia, Decatur - Insular carcinoma of thyroid
Illinois (Heartland Regional Medical Center) - Poorly-differentiated follicular carcinoma, insular type
Kansas (Coffeyville Regional Medical Center) - Poorly-differentiated insular carcinoma, thyroid
Kansas, Manhattan - Insular carcinoma
Kentucky (University of Louisville Hospital) - Follicular carcinoma, insular type
Louisiana (LSUHSC) - Follicular carcinoma with insular pattern
Maryland (Johns Hopkins Medical Center) - Insular carcinoma
Maryland (National Cancer Institute) - Papillary thyroid carcinoma
Maryland (National Naval Medical Center) - Poorly-differentiated carcinoma, insular type (15)
Michigan (Henry Ford Hospital) - Insular carcinoma
Michigan (St. Joseph Mercy Hospital) - Follicular carcinoma (2), insular carcinoma (1)
Michigan (St. Mary's Hospital) - Thyroid insular carcinoma
Michigan (Spectrum Health) - Insular carcinoma
Mississippi (University of Mississippi Medical Center) - Poorly-differentiated (insular) carcinoma of thyroid

Missouri (Ferguson's Medical Lab) - Insular carcinoma of thyroid
New Mexico (University of New Mexico) - Insular carcinoma
New York (Nassau University Medical Center) - Poorly-differentiated (insular) carcinoma
New York (New York Presbyterian Hospital) - Insular carcinoma
New York (Stony Brook University Hospital) - Insular carcinoma
Ohio (Medical College of Ohio) - Papillary carcinoma of thyroid
Ohio, Columbus - Poorly-differentiated (insular) carcinoma
Pennsylvania (Allegheny General Hospital) - Insular carcinoma
Pennsylvania (Memorial Medical Center) - Follicular variant of papillary carcinoma
Pennsylvania (Magee Women's Hospital) - Follicular carcinoma (thyroid)
Texas (Brown & Associates Medical Lab) - Medullary carcinoma
Texas (Scott & White Memorial Hospital) - Insular carcinoma
Texas, Lubbock - Insular carcinoma
Texas, San Antonio - Poorly-differentiated thyroid carcinoma
Utah (University of Utah) - Insular carcinoma
Washington, D.C. - Papillary carcinoma
Canada (CUSI, Site Fleurimont) - Papillary carcinoma, follicular variant
Canada (University of Calgary, Foothills Hospital) - Poorly-differentiated thyroid carcinoma (insular)
Canada (University of Saskatchewan Royal University Hospital) - Insular carcinoma, thyroid
China (Sir Run Run Shaw Hospital) - Insular carcinoma
Japan (Hamamatsu University School of Medicine) - Poorly-differentiated (insular) carcinoma
Japan (Gunma University Hospital) - Insular carcinoma, thyroid gland
Japan (Nagoya National Hospital) - Thyroid - Poorly-differentiated (insular) carcinoma
Japan, Chiba - Poorly-differentiated (insular) carcinoma of thyroid gland
Puerto Rico (University of Puerto Rico) - Insular carcinoma
Qatar, Doha - Insular carcinoma of thyroid
Spain (Povisa) - Poorly-differentiated carcinoma (insular carcinoma)
The Netherlands, Amstelveen - Poorly-differentiated follicular thyroid carcinoma

Case 7 - Diagnosis:

Poorly-Differentiated (Insular) Carcinoma, Thyroid
T-96000, M-80103

Case 7 - References:

LiVolsi VA, Baloch ZW: Predicting Prognosis in Thyroid Carcinoma. Can Histology Do It? *Am J Surg Pathol*, 2002 Aug; 26(8):1064-5.
 Decaussin M, Bernard MH, Adeleine P, et al: Thyroid Carcinomas With Distant Metastasis: Review of 111 Cases With Emphasis on the Prognostic Significance of an Insular Component. *Am J Surg Pathol*, 2002 Aug; 26(8):1007-15.
 Layfield LJ, Gopez EV: Insular Carcinoma of the Thyroid: Report of a Case With Intact Insulae and Microfollicular Structures. *Diagn Cytopathol*, 2000 Dec; 23(6):409-13.
 Lam KY, Lo CY, Chan KW, Wan KY: Insular and Anaplastic Carcinoma of the Thyroid: A 45-Year Comparative Study at a Single Institution and a Review of the Significance of p53 and p21. *Ann Surg*, 2000 Mar; 231(3):329-38.

Case No. 8, Accession No. 29772

September, 2003

Escondido - Metaplastic carcinoma
Glendale (Glendale Pathology Association) - Spindled cell carcinoma
Granada Hills - Metaplastic carcinoma (breast)
Loma Linda (LLUMC Residents) - Solitary fibrous tumor
Los Angeles (LAC-USC Medical Center) - Myoepithelial carcinoma, malignant phyllodes tumor, poorly-differentiated angiosarcoma
Orange (UCI Medical Center Residents) - Metaplastic carcinoma
Sacramento (U.C. Davis Medical Center) - Phyllodes tumor
San Francisco (San Francisco General Hospital) - Atypical phyllodes tumor
Arizona (Phoenix Memorial Hospital) - Neurogenic sarcoma
Arkansas (University of Arkansas Medical Center) - Osteosarcoma arising most likely in a phyllodes tumor (1); metaplastic (sarcomatoid) carcinoma, breast (1)
Colorado, Denver - Low grade sarcoma
Florida (St. Joseph's Hospital) - Metaplastic (spindle cell) carcinoma
Florida (Winter Haven Hospital) - Malignant phyllodes tumor

Florida, Ocala - Myofibroblastoma
Georgia, Decatur - Metaplastic carcinoma
Illinois (Heartland Regional Medical Center) - Metaplastic ductal carcinoma, spindle cell type
Kansas (Coffeyville Regional Medical Center) - Myofibroblastoma, breast
Kansas, Manhattan - Hamartoma and ductal carcinoma in-situ, high grade
Kentucky (University of Louisville Hospital) - Metaplastic carcinoma vs. pleomorphic liposarcoma
Louisiana (LSUHSC) - Stromal sarcoma, possibly periductal, rule out metaplastic carcinoma
Maryland (Johns Hopkins Medical Center) - Myofibroblastoma (would do stains)
Maryland (National Cancer Institute) - Phyllodes tumor
Maryland (National Naval Medical Center) - High grade fibrosarcoma/malignant fibrous histiocytoma, cannot exclude malignant phyllodes or metaplastic carcinoma (15)
Michigan (Henry Ford Hospital) - Metaplastic carcinoma/malignant phyllodes tumor
Michigan (St. Joseph Mercy Hospital) - Phyllodes tumor, malignant
Michigan (St. Mary's Hospital) - Myofibroblastoma
Michigan (Spectrum Health) - Angiosarcoma
Mississippi (University of Mississippi Medical Center) - Metaplastic carcinoma
Missouri (Ferguson's Medical Lab) - Periductal stromal sarcoma
New Mexico (University of New Mexico) - Myofibroblastoma
New York (Nassau University Medical Center) - Malignant phyllodes tumor, low grade
New York (New York Presbyterian Hospital) - Differential diagnosis - 1) Metaplastic carcinoma, 2) Atypical myofibroblastoma
New York (Stony Brook University Hospital) - Malignant phyllodes tumor
Ohio (Medical College of Ohio) - Malignant phyllodes tumor
Ohio, Columbus - Malignant neoplasm, possible metaplastic carcinoma
Pennsylvania (Allegheny General Hospital) - Metaplastic carcinoma
Pennsylvania (Memorial Medical Center) - Metaplastic carcinoma
Pennsylvania (Magee Women's Hospital) - Metaplastic carcinoma, breast
Texas (Brown & Associates Medical Lab) - Metaplastic carcinoma versus sarcoma
Texas (Scott & White Memorial Hospital) - Phyllodes tumor
Texas, Lubbock - Metaplastic carcinoma
Texas, San Antonio - Metaplastic carcinoma versus sarcoma versus sarcomatoid OGPT
Utah (University of Utah) - Dedifferentiated liposarcoma
Washington, D.C. - Metaplastic carcinoma
Canada (CUSI, Site Fleurimont) - Phyllodes tumor, malignant
Canada (University of Calgary, Foothills Hospital) - Metaplastic breast carcinoma
Canada (University of Saskatchewan Royal University Hospital) - Schwannoma, atypical, breast
China (Sir Run Run Shaw Hospital) - Sarcoma (osteosarcoma)
Japan (Hamamatsu University School of Medicine) - Stromal sarcoma
Japan (Gunma University Hospital) - Stromal sarcoma, breast
Japan (Nagoya National Hospital) - Breast - Stromal sarcoma versus metaplastic carcinoma
Japan, Chiba - Cystosarcoma phyllodes, malignant
Puerto Rico (University of Puerto Rico) - Sarcoma (NOS)/Spindle cell sarcoma
Qatar, Doha - Phyllodes tumor, malignant (4); Poorly-differentiated angiosarcoma (2)
Spain (Povisa) - Sarcoma (probably leiomyosarcoma)
The Netherlands, Amstelveen - Metaplastic carcinoma

Case 8 - Diagnosis:

Myofibroblastoma, Breast
T-04000, M-88100

Director's Note: Note the circumscription of the tumor and male gender. Stromal elements were cytokeratin negative, actin positive, and rarely desmin positive. (drc)

Case 8 - References:

McMenamin ME, Fletcher CD: Mammary-Type Myofibroblastoma of Soft Tissue: A Tumor Closely Related To Spindle Cell Lipoma. *Am J Surg Pathol*, 2001 Aug; 25(8):1022-9.
 Simsir A, Cangiarella J, Boppana S, Waisman J: Aspiration Cytology of the Collagenized Variant of Mammary Myofibroblastoma: A Case Report With Review of the Literature. *Diagn Cytopathol*, 2001 Jun; 24(6):399-402.
 Mentzel T, Calonje E, Wadden C, et al: Myxofibrosarcoma: Clinicopathologic Analysis of 75 Cases With Emphasis On the Low-Grade Variant. *Am J Surg Pathol*, 1996 Apr; 20(4):391-405.
 Morgan MB, Pitha JV: Myofibroblastoma of the Breast Revisited: An Etiologic Association With Androgens? *Hum Pathol*, 1998 Apr; 29(4):347-51.

Eyden BP, Ioachim E, Ali HH, Christensen L: Myofibroblastoma of the Male Breast: A Comment on Differentiation and Terminology. *Histopathology*, 1998 Dec; 33(6):577-9.

Powari M, Srinivasan R, Radotra BD: Myofibroblastoma of the Male Breast: A Diagnostic Problem on Fine-Needle Aspiration Cytology. *Diagn Cytopathol*, 2002 May; 26(5):290-3.

Case No. 9, Accession No. 29449

September, 2003

Escondido - Mature and immature teratoma and yolk sac tumor
Glendale (Glendale Pathology Association) - Yolk sac tumor + immature teratoma
Granada Hills - Mature teratoma
Loma Linda (LLUMC Residents) - Mixed germ cell tumor: focal embryonal carcinoma, yolk sac tumor, and immature teratoma
Los Angeles (LAC-USC Medical Center) - Non-seminomatous germ cell tumor - 90% immature teratoma, 10% embryonal carcinoma
Orange (UCI Medical Center Residents) - Mixed germ cell tumor
Sacramento (U.C. Davis Medical Center) - Immature teratoma
San Francisco (San Francisco General Hospital) - Mixed germ cell tumor
Tustin Ranch - Immature teratoma
Arizona (Phoenix Memorial Hospital) - Mixed germ cell tumor (teratoma and yolk sac tumor)
Arkansas (University of Arkansas Medical Center) - Teratocarcinoma (1); Immature teratoma, testis (1)
Colorado, Denver - Malignant teratoma with embryonal carcinoma
Florida (St. Joseph's Hospital) - Malignant mixed germ cell tumor (immature teratoma + embryonal carcinoma + yolk sac tumor)
Florida (Winter Haven Hospital) - Teratocarcinoma
Florida, Ocala - Teratoma with immature elements
Georgia, Decatur - Mixed germ cell tumor (teratoma, yolk sac tumor)
Illinois (Heartland Regional Medical Center) - Immature teratoma plus embryonal carcinoma
Kansas (Coffeyville Regional Medical Center) - Immature teratoma, focal high grade, testis
Kansas, Manhattan - Mixed germ cell tumor - immature teratoma and yolk sac
Kentucky (University of Louisville Hospital) - Immature teratoma vs. teratocarcinoma
Louisiana (LSUHSC) - Mixed germ cell tumor (immature teratoma, embryonal carcinoma)
Maryland (Johns Hopkins Medical Center) - Immature teratoma
Maryland (National Cancer Institute) - Malignant teratoma
Maryland (National Naval Medical Center) - Immature teratoma (4); Mixed germ cell tumor with yolk sac and immature teratoma components (11)
Michigan (Henry Ford Hospital) - Immature teratoma
Michigan (St. Joseph Mercy Hospital) - Immature teratoma
Michigan (St. Mary's Hospital) - Immature teratoma
Michigan (Spectrum Health) - Immature teratoma
Mississippi (University of Mississippi Medical Center) - Malignant mixed germ cell tumor
Missouri (Ferguson's Medical Lab) - Teratocarcinoma
New Mexico (University of New Mexico) - Immature teratoma
New York (Nassau University Medical Center) - Immature teratoma with PNET feature
New York (New York Presbyterian Hospital) - Mixed germ cell tumor - immature teratoma and yolk sac elements
New York (Stony Brook University Hospital) - Immature teratoma
Ohio (Medical College of Ohio) - Mixed germ cell tumor -- malignant teratoma and yolk sac tumor
Ohio, Columbus - Malignant mixed germ cell tumor
Pennsylvania (Allegheny General Hospital) - Mixed germ cell tumor
Pennsylvania (Memorial Medical Center) - Teratocarcinoma
Pennsylvania (Magee Women's Hospital) - Mixed germ cell tumor
Texas (Brown & Associates Medical Lab) - Embryonal carcinoma/yolk sac tumor/teratoma
Texas (Scott & White Memorial Hospital) - Mixed germ cell tumor with immature teratoma and yolk sac tumor
Texas, Lubbock - Mixed nonseminomatous carcinoma with 75% teratoma and 25% yolk sac tumor
Texas, San Antonio - Mixed GCT (germ cell tumor) - immature teratoma, yolk sac tumor
Utah (University of Utah) - Yolk sac tumor with cartilaginous differentiation
Washington, D.C. - Teratocarcinoma
Canada (CUSI, Site Fleurimont) - Immature teratoma, high grade
Canada (University of Calgary, Foothills Hospital) - Teratoma with immature components
Canada (University of Saskatchewan Royal University Hospital) - Mixed germ cell tumor, comprising embryonal carcinoma and teratoma
China (Sir Run Run Shaw Hospital) - Immature teratoma (Grade III)
Japan (Hamamatsu University School of Medicine) - Immature teratoma

Japan (Gunma University Hospital) - Immature teratoma and embryonal carcinoma, testis
Japan (Nagoya National Hospital) - Testis - Immature teratoma
Japan, Chiba - Immature teratoma of testis
Puerto Rico (University of Puerto Rico) - Mixed germ cell tumor: Immature teratoma, teratocarcinoma
Qatar, Doha - Malignant mixed germ cell tumor, immature teratoma + EST
Spain (Povisa) - Mixed germ cell tumor {immature teratoma + yolk sac tumor (+ embryonic carcinoma?)}
The Netherlands, Amstelveen - Immature teratoma

Case 9 - Diagnosis:

Mixed Malignant Germ Cell Tumor (Immature Teratoma, Embryonal Carcinoma, and Yolk Sac Tumor)

T-78000, M-90801, M-90703, M-90713

Case 9 - References:

Motzer RJ, Amsterdam A, Prieto V, et al: Teratoma With Malignant Transformation: Diverse Malignant Histologies Arising in Men With Germ Cell Tumors. *J Urol*, 1998 Jan; 159(1):133-8.
 Aubry F, Satie AP, Rioux-Leclercq N, et al: MAGE-A4, A Germ Cell Specific Marker, Is Expressed Differentially in Testicular Tumors. *Cancer*, 2001 Dec 1; 92(11):2778-85.

Case No. 10, Accession No. 29471

September, 2003

Escondido - Serous papillary tumor of borderline malignancy
Glendale (Glendale Pathology Association) - Papillary serous carcinoma
Granada Hills - Papillary serous carcinoma
Loma Linda (LLUMC Residents) - Papillary serous adenocarcinoma
Los Angeles (LAC-USC Medical Center) - Papillary serous cystadenocarcinoma
Orange (UCI Medical Center Residents) - Granulosa cell tumor
Sacramento (U.C. Davis Medical Center) - Granulosa cell tumor
San Francisco (San Francisco General Hospital) - Micropapillary serous carcinoma
Arizona (Phoenix Memorial Hospital) - Adult granulosa cell tumor
Arkansas (University of Arkansas Medical Center) - Papillary carcinoma, FIGO Grade I (1); Atypical proliferating serous tumor, ovary (1)
Colorado, Denver - Papillary serous carcinoma
Florida (St. Joseph's Hospital) - Serous adenocarcinoma
Florida (Winter Haven Hospital) - Granulosa cell tumor
Florida, Ocala - Papillary serous carcinoma
Georgia, Decatur - Mesothelioma
Illinois (Heartland Regional Medical Center) - Serous papillary tumor of borderline malignancy
Kansas (Coffeyville Regional Medical Center) - Adenocarcinoma, endometrioid type, low grade, ovary
Kansas, Manhattan - Papillary serous cystic tumor, low malignant potential
Kentucky (University of Louisville Hospital) - Sertoli cell tumor
Louisiana (LSUHSC) - Endometrioid adenocarcinoma
Maryland (Johns Hopkins Medical Center) - Granulosa cell tumor
Maryland (National Cancer Institute) - Papillary serous adenocarcinoma
Maryland (National Naval Medical Center) - Endometrioid adenocarcinoma, ciliated cell variant (13); Strumal carcinoid with glandular differentiation (2)
Michigan (Henry Ford Hospital) - Serous adenocarcinoma
Michigan (St. Joseph Mercy Hospital) - Endometrioid adenocarcinoma (2), Papillary serous carcinoma (1)
Michigan (St. Mary's Hospital) - Malignant struma ovarii with papillary carcinoma
Michigan (Spectrum Health) - Serous carcinoma
Mississippi (University of Mississippi Medical Center) - Serous papillary cystadenocarcinoma
Missouri (Ferguson's Medical Lab) - Micropapillary serous carcinoma
New Mexico (University of New Mexico) - Micropapillary serous carcinoma
New York (Nassau University Medical Center) - Micropapillary serous carcinoma
New York (New York Presbyterian Hospital) - Endometrioid carcinoma, ciliated cell type
New York (Stony Brook University Hospital) - Borderline serous tumor, with micropapillary and solid components
Ohio (Medical College of Ohio) - Serous adenocarcinoma of ovary
Ohio, Columbus - Papillary carcinoma
Pennsylvania (Allegheny General Hospital) - Serous papillary borderline tumor
Pennsylvania (Memorial Medical Center) - Papillary serous cystadenocarcinoma/malignant teratoma

Pennsylvania (Magee Women's Hospital) - Papillary serous carcinoma, ovary
Texas (Brown & Associates Medical Lab) - Cystic papillary tumor (pancreatic origin?)
Texas (Scott & White Memorial Hospital) - Papillary serous carcinoma
Texas, Lubbock - Papillary serous tumor of low malignant potential
Texas, San Antonio - Borderline serous tumor
Utah (University of Utah) - Papillary serous cystadenocarcinoma
Washington, D.C. - Papillary serous adenocarcinoma
Canada (CUSI, Site Fleurimont) - Papillary carcinoma
Canada (University of Calgary, Foothills Hospital) - Endometrioid carcinoma of ovary, ciliated type
Canada (University of Saskatchewan Royal University Hospital) - Malignant Brenner's tumor, ovary
China (Sir Run Run Shaw Hospital) - Papillary cystadenocarcinoma
Japan (Hamamatsu University School of Medicine) - Serous papillary adenocarcinoma
Japan (Gunma University Hospital) - Serous adenocarcinoma, ovary
Japan (Nagoya National Hospital) - Ovary - Papillary carcinoma (probably associated with struma ovarii)
Japan, Chiba - Atypical proliferative ("borderline") serous tumor of ovary
Puerto Rico (University of Puerto Rico) - Papillary serous adenocarcinoma
Qatar, Doha - Serous borderline tumor of the ovary
Spain (Povisa) - Serous papillary adenocarcinoma (non-invasive type?)
The Netherlands, Amstelveen - Serous adenocarcinoma

Case 10 - Diagnosis:

Papillary Serous Carcinoma, Ovary
T-87000, M-80503

Outside consultation: Robert H. Young, M.D., Massachusetts General Hospital, Boston, Massachusetts: Serous papillary carcinoma, Grade I-II (of III), arising in a background of a serous papillary adenofibroma of borderline malignancy.

Case 10 - References:

Prat J, de Nictolis M: Serous Borderline Tumors of the Ovary: A Long-Term Follow-Up Study of 137 Cases, Including 18 With a Micropapillary Pattern and 20 With Microinvasion. *Am J Surg Pathol*, 2002 Sep; 26(9):1111-28.
 Deavers MT, Gershenson DM, Tortolero-Luna G, et al: Micropapillary and Cribriform Patterns In Ovarian Serous Tumors Of Low Malignant Potential: A Study of 99 Advanced Stage Cases. *Am J Surg Pathol*, 2002 Sep; 26(9):1129-41.
 Katabuchi H, Tashiro H, Cho KR, et al: Micropapillary Serous Carcinoma of the Ovary: An Immunohistochemical and Mutational Analysis of p53. *Int J Gynecol Pathol*, 1998 Jan; 17(1):54-60.
 Demopoulos RI, Mesia AF, Mittal K, Vamvakas E: Immunohistochemical Comparison of Uterine Papillary Serous and Papillary Endometrioid Carcinoma: Clues to Pathogenesis. *Int J Gynecol Pathol*, 1999 Jul; 18(3):233-7.
 Ordóñez NG: Role of Immunohistochemistry in Distinguishing Epithelial Peritoneal Mesotheliomas From Peritoneal and Ovarian Serous Carcinomas. *Am J Surg Pathol*, 1998 Oct; 22(10):1203-14.