



CALIFORNIA
TUMOR TISSUE REGISTRY

“General Pathology”

Minutes – Subscription B

February, 2006



SUGGESTED READING (General Topics from Recent Literature):

Facts Versus Ideology In The Cloning Debate. *The Lancet*, 2004 Feb 28; 363(9409):581.

Are Patients Diagnosed With Breast Cancer Before Age 50 Years Ever Cured? Brenner H, Hakulinen T. *J Clin Oncol*, 2004 Feb; 22(3):432-8.

Inhibition Of Telomerase Limits The Growth Of Human Cancer Cells. Hahn WC, Stewart SA, Brooks MA, et al: *Nature Medicine*, 1999 Oct; 5(10):1164-70.

Is There More Than One Road To Melanoma? Rivers JK. *The Lancet*, 2004 Feb 28; 363:728-30.

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FILE DIAGNOSES

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

CTTR Subscription B

Case 1:

**Dysgerminoma, ovary
T-87000, M-9060/3**

Case 2:

**Mixed germ cell/sex cord-stromal tumor with yolk sac and granulosa cell features, ovary
T-87000, M-8590/1**

Case 3:

**Adenocarcinoma arising in Barrett’s esophagus
T-62000, M-73330, M-81403**

Case 4:

**Metastatic mucinous adenocarcinoma, ovary
T-87000, M-8480/6**

Case 5:

**Adrenal cortical neoplasm, probably malignant
T-93000, M-8370/3**

Case 6:

**Adenoid cystic carcinoma, metastatic to lung
T-28000, M-8200/6**

Case 7:

**Pigmented villonodular synovitis (tenosynovial giant cell tumor), knee
T-Y9200, M-47830**

Case 8:

**Fibrolipoma with atypia (“Atypical lipoma”), thigh
T-Y9100, M-8851/0**

Case 9:

**Monophasic synovial sarcoma, hip
T-Y1500, M-9040/3**

Case 10:

**Uterine leiomyosarcoma
T-82000, M-88903**

Escondido - Dysgerminoma
Glendale - Dysgerminoma
Loma Linda University Medical Center Residents - Dysgerminoma
San Francisco (San Francisco General Hospital) - Dysgerminoma
Arkansas (University of Arkansas Medical Center) - Dysgerminoma, ovary
Florida (Winter Haven Hospital) - Dysgerminoma
Georgia, Decatur - Dysgerminoma
Illinois (Heartland Regional Medical Center) - Dysgerminoma
Indiana (Ball Memorial Hospital) - Dysgerminoma
Kansas (Coffeyville Regional Medical Center) - Dysgerminoma
Kentucky (University of Louisville Residents) - Dysgerminoma
Maryland (Johns Hopkins Medical Institute) - Dysgerminoma
Maryland (National Naval Medical Center) - Dysgerminoma
Maryland (University of Maryland Medical System Residents) - Dysgerminoma
Michigan (Pathology Services of West Michigan) - Large cell lymphoma
Michigan (St. Mary's Hospital) - Dysgerminoma (3)
Michigan, Niles - Dysgerminoma
New York (Nassau University Medical Center) - Dysgerminoma
New York (New York Stony Brook University Hospital Residents) - Dysgerminoma
New York (SUNY Downstate Residents) - Dysgerminoma
New York (Westchester Medical Center) - Dysgerminoma
Pennsylvania (Drexel University College of Medicine) - Dysgerminoma
Rhode Island (Brown University/Rhode Island Hospital Residents) - Dysgerminoma
Texas (Scott & White Hospital) - Dysgerminoma
Texas (Baylor College of Medicine) - Dysgerminoma
Texas, Crystal Beach - Dysgerminoma
Texas, Lubbock - Dysgerminoma
Texas, San Antonio - Dysgerminoma
West Virginia (Wetzel County Hospital) - Embryonal carcinoma
Wisconsin, Marshfield - Dysgerminoma
Australia (Sullivan Nicolaides Pathology) - Dysgerminoma
Canada (Pasqua Hospital) - Dysgerminoma
China (Sir Run Run Shaw Hospital) - Dysgerminoma
Japan (Gunma University Hospital) - Dysgerminoma
Japan (Hamamatsu University School of Medicine) - Dysgerminoma
Japan, Chiba - Dysgerminoma
Oman (Khoula Hospital) - Dysgerminoma
Puerto Rico (University of Puerto Rico) - Dysgerminoma
Qatar (Hamad Medical Corporation) - Dysgerminoma
Saudi Arabia (King Fahad National Guard Hospital) - Dysgerminoma
Spain (Povisa) - Dysgerminoma

Case 1 - Diagnosis:

Dysgerminoma, ovary
T-87000, M-9060/3

Case 1 - References:

- Palmquist MB, Webb MJ, Lieber MM, et al: DNA Ploidy Of Ovarian Dysgerminomas: Correlation With Clinical Outcome. *Gynecol Oncol*, 1992 Jan; 44(1):13-16.
- Dietl J, Horny HP, Ruck P, Kaiserling M: Dysgerminoma Of The Ovary: Immunohistochemical Study Of Tumor-Infiltrating Lymphoreticular Cells And Tumor Cells. *Cancer*, 1993 Apr 15; 71(8):2562-8.
- El-Lamie IK, Shehata NA, Abou-Loz SK, El-Lamie KI. Conservative Surgical Management Of Malignant Ovarian Germ Cell Tumors: The Experience Of The Gynecologic Oncology Unit At Ain Shams University. *Eur J Gynaecol Oncol*, 2000; 21(6):605-9.
- Ayhan A, Bildirici I, Gunalp S, Yuce K: Pure Dysgerminoma Of The Ovary: A Review Of 45 Well-Staged Cases. *Eur J Gynaecol Oncol*, 2000; 21(1):98-101.

Escondido - Yolk sac tumor
Glendale - Yolk sac tumor
Loma Linda University Medical Center Residents - Yolk-sac tumor
San Francisco (San Francisco General Hospital) - Yolk sac tumor, polyvesicular/polyviteline type
Arkansas (University of Arkansas Medical Center) - Yolk sac tumor, ovary
Florida (Winter Haven Hospital) - Yolk sac carcinoma
Georgia, Decatur - Juvenile granulosa cell tumor
Illinois (Heartland Regional Medical Center) - Yolk sac tumor
Indiana (Ball Memorial Hospital) - Yolk sac tumor
Kansas (Coffeyville Regional Medical Center) - Yolk sac tumor (endodermal sinus tumor)
Kentucky (University of Louisville Residents) - Yolk sac tumor
Maryland (Johns Hopkins Medical Institute) - Yolk sac tumor
Maryland (National Naval Medical Center) - Yolk-Sac tumor
Maryland (University of Maryland Medical System Residents) - Yolk sac tumor
Michigan (Pathology Services of West Michigan) - Yolk sac tumor
Michigan (St. Mary's Hospital) - Yolk sac tumor (1); Juvenile granulosa cell tumor (2)
Michigan, Niles - Adenocarcinoma, favor clear cell type
New York (Nassau University Medical Center) - Yolk sac tumor
New York (New York Stony Brook University Hospital Residents) - Yolk sac tumor
New York (SUNY Downstate Residents) - Yolk sac tumor
New York (Westchester Medical Center) - Yolk sac tumor
Pennsylvania (Drexel University College of Medicine) - Yolk sac tumor
Rhode Island (Brown University/Rhode Island Hospital Residents) - Yolk sac tumor
Texas (Scott & White Hospital) - Clear cell carcinoma
Texas (Baylor College of Medicine) - Mixed germ cell tumor (yolk sac tumor and embryonal carcinoma)
Texas, Crystal Beach - Germ cell tumor, probably yolk sac
Texas, Lubbock - Clear cell carcinoma
Texas, San Antonio - Yolk sac tumor
West Virginia (Wetzel County Hospital) - Yolk sac tumor
Wisconsin, Marshfield - Serous adenocarcinoma
Australia (Sullivan Nicolaides Pathology) - Yolk sac tumor
Canada (Pasqua Hospital) - Yolk sac tumor
China (Sir Run Run Shaw Hospital) - Embryonal carcinoma/Yolk sac tumor
Japan (Gunma University Hospital) - Clear cell adenocarcinoma
Japan (Hamamatsu University School of Medicine) - Yolk sac tumor
Japan, Chiba - Yolk sac tumor
Oman (Khoula Hospital) - Yolk sac tumour
Puerto Rico (University of Puerto Rico) - Yolk sac tumor
Qatar (Hamad Medical Corporation) - Yolk sac tumor
Saudi Arabia (King Fahad National Guard Hospital) - Yolk sac tumor
Spain (Povisa) - Yolk sac tumor

Case 2 - Diagnosis:

Mixed germ cell/sex cord stromal tumor with yolk sac and granulosa cell features, ovary

T-87000, M-8590/1

Case 2 - References:

- Pelkey TJ, Frierson HF Jr, Mills SE, Stoler MH: The Diagnostic Utility Of Inhibin Staining In Ovarian Neoplasms. *Int J Gynecol Pathol*, 1998 Apr; 17(2):97-105.
 Piura B, Nemet D, Yanai-Inbar I, et al: Granulosa Cell Tumor Of The Ovary: A Study Of 18 Cases. *J Surg Oncol*, 1994 Feb; 55(2):71-7.
 Chadha S, van der Kwast TH: Immunohistochemistry Of Ovarian Granulosa Cell Tumors: The Value Of Tissue Specific Proteins And Tumour Markers. *Virchows Arch A Pathol Anat Histopathol*, 1989; 414(5):439-45.
 Fox H, Agrawal K, Langley FA: A Clinicopathologic Study Of 92 Cases Of Granulosa Cell Tumor Of The Ovary With Special Reference To The Factors Influencing Prognosis. *Cancer*, 1975 Jan; 35(1):231-41.

Escondido - Poorly-differentiated adenocarcinoma arising in Barrett's
Glendale - Adenocarcinoma
Loma Linda University Medical Center Residents - Infiltrating well-differentiated adenocarcinoma
San Francisco (San Francisco General Hospital) - Barrett's esophagus with dysplasia
Arkansas (University of Arkansas Medical Center) - Adenocarcinoma arising in Barrett's esophagus
Florida (Winter Haven Hospital) - Invasive adenocarcinoma
Georgia, Decatur - Adenocarcinoma arising in Barrett's esophagus
Illinois (Heartland Regional Medical Center) - Adenocarcinoma, well-differentiated, arising in Barrett's esophagus
Indiana (Ball Memorial Hospital) - Invasive adenocarcinoma
Kansas (Coffeyville Regional Medical Center) - Adenocarcinoma arising in Barrett's esophagus
Kentucky (University of Louisville Residents) - Adenocarcinoma, poorly-differentiated, arising in a Barrett esophagus
Maryland (Johns Hopkins Medical Institute) - At least high-grade dysplasia arising in Barrett's esophagus, no invasive carcinoma on our slide
Maryland (National Naval Medical Center) - Adenocarcinoma
Maryland (University of Maryland Medical System Residents) - Adenocarcinoma
Michigan (Pathology Services of West Michigan) - Adenocarcinoma arising in Barrett's
Michigan (St. Mary's Hospital) - Adenocarcinoma (3), invasive well-differentiated (2)
Michigan, Niles - Moderately-differentiated adenocarcinoma
New York (Nassau University Medical Center) - Infiltrating adenocarcinoma of esophagus
New York (New York Stony Brook University Hospital Residents) - Adenocarcinoma, superficially invasive
New York (SUNY Downstate Residents) - Barrett's esophagus with high-grade dysplasia
New York (Westchester Medical Center) - Adenocarcinoma arising in Barrett's esophagus
Pennsylvania (Drexel University College of Medicine) - Adenocarcinoma
Rhode Island (Brown University/Rhode Island Hospital Residents) - Invasive moderately-differentiated adenocarcinoma arising in Barrett's with high-grade dysplasia
Texas (Scott & White Hospital) - Invasive adenocarcinoma
Texas (Baylor College of Medicine) - Well-differentiated adenocarcinoma
Texas, Crystal Beach - Barrett's esophagus with adenocarcinoma
Texas, Lubbock - Barrett's esophagus with superficially invasive carcinoma
Texas, San Antonio - Adenocarcinoma arising in Barrett's
West Virginia (Wetzel County Hospital) - Adenocarcinoma arising in Barrett's esophagus
Wisconsin, Marshfield - Invasive adenocarcinoma
Australia (Sullivan Nicolaides Pathology) - Adenocarcinoma arising in Barrett's esophagus
Canada (Pasqua Hospital) - Barrett's esophagus with dysplasia and carcinoma
China (Sir Run Run Shaw Hospital) - Adenocarcinoma arising in Barrett's esophagus
Japan (Gunma University Hospital) - Adenocarcinoma arising from Barrett's esophagus
Japan (Hamamatsu University School of Medicine) - Well-differentiated adenocarcinoma
Japan, Chiba - Adenocarcinoma, arising in Barrett's esophagus
Oman (Khoulia Hospital) - Adenocarcinoma arising from Barrett's esophagus
Puerto Rico (University of Puerto Rico) - Adenocarcinoma arising from Barrett's metaplasia
Qatar (Hamad Medical Corporation) - Adenocarcinoma arising in Barrett's esophagus
Saudi Arabia (King Fahad National Guard Hospital) - Adenocarcinoma, moderately-differentiated
Spain (Povisa) - Tubular type adenocarcinoma (Barrett's esophagus)

CASE 3 - Diagnosis:**Adenocarcinoma arising in Barrett's esophagus****T-62000, M-73330, M-81403****Case 3 - References:**

- Murray L, Watson P, Johnston B, et al: Risk Of Adenocarcinoma In Barrett's Esophagus: Population Based Study. *BMJ*, 2003 Sep 6; 327(7414):534-5.
- Blount PL, Meltzer SJ, Yin J, et al: Clonal Ordering Of 17p And 5q Allelic Losses In Barrett Dysplasia And Adenocarcinoma. *Proc Natl Acad Sci USA*, 1993 Apr 15; 90(8):3221-5.
- Hughes SJ, Glover TW, Zhu XX, et al: A Novel Amplicon At 8p22-23 Results In Overexpression Of Cathepsin B In Esophageal Adenocarcinoma. *Proc Natl Acad Sci USA*, 1998 Oct 13; 95(21):12410-5.
- Boynton RF, Blount PL, Yin J, et al: Loss Of Heterozygosity Involving The APC And MCC Genetic Loci Occurs In The Majority Of Human Esophageal Cancers. *Proc Natl Acad Sci USA*, 1992 Apr 15; 89(8):3385-8.

Escondido - Krukenberg tumor
Glendale - Adenocarcinoma
Loma Linda University Medical Center Residents - Signet-ring cell carcinoma
San Francisco (San Francisco General Hospital) - Mucinous carcinoma, poorly-differentiated
Arkansas (University of Arkansas Medical Center) - Krukenberg tumor, ovary
Florida (Winter Haven Hospital) - Krukenberg tumor
Georgia, Decatur - Krukenberg tumor
Illinois (Heartland Regional Medical Center) - Adenocarcinoma with signet-ring cells (Krukenberg tumor)
Indiana (Ball Memorial Hospital) - Sertoli-Leydig cell tumor
Kansas (Coffeyville Regional Medical Center) - Metastatic adenocarcinoma (signet rings) ? from stomach or G.B.
Kentucky (University of Louisville Residents) - Mucinous adenocarcinoma, favor metastatic
Maryland (Johns Hopkins Medical Institute) - Mucinous carcinoma, primary vs. metastatic
Maryland (National Naval Medical Center) - Adenocarcinoma (mucinous)
Maryland (University of Maryland Medical System Residents) - 1) Mucinous carcinoma; 2) Krukenberg tumor
Michigan (Pathology Services of West Michigan) - Signet ring carcinoma
Michigan (St. Mary's Hospital) - Metastatic adenocarcinoma (1); Mucinous carcinoma, rule out metastasis (2)
Michigan, Niles - Adenocarcinoma with goblet cell features, within Brenner tumor
New York (Nassau University Medical Center) - Krukenberg tumor
New York (New York Stony Brook University Hospital Residents) - Krukenberg tumor
New York (SUNY Downstate Residents) - Krukenberg tumor
New York (Westchester Medical Center) - Metastatic adenocarcinoma with signet-ring cells
Pennsylvania (Drexel University College of Medicine) - Mucinous carcinoma of the ovary
Rhode Island (Brown University/Rhode Island Hospital Residents) - Krukenberg tumor
Texas (Scott & White Hospital) - Goblet cell carcinoid
Texas (Baylor College of Medicine) - Metastatic poorly-differentiated adenocarcinoma with signet ring cells
Texas, Crystal Beach - Mucinous adenocarcinoma, ovary; possibly metastatic (G.I. tract, etc.)
Texas, Lubbock - Metastatic adenocarcinoma
Texas, San Antonio - Metastatic mucinous (signet-ring) carcinoma (Krukenberg)
West Virginia (Wetzel County Hospital) - Mucinous carcinoid with adenocarcinoma
Wisconsin, Marshfield - Adenocarcinoma, possibly Krukenberg carcinoma
Australia (Sullivan Nicolaides Pathology) - Metastatic adenocarcinoma, mucin-secreting
Canada (Pasqua Hospital) - Adenocarcinoma, probably metastatic
China (Sir Run Run Shaw Hospital) - Krukenberg tumor
Japan (Gunma University Hospital) - Metastatic adenocarcinoma
Japan (Hamamatsu University School of Medicine) - Metastatic adenocarcinoma
Japan, Chiba - Mixed adenocarcinoma
Oman (Khoula Hospital) - Metastatic adenocarcinoma; DD: Neuroendocrine tumor
Puerto Rico (University of Puerto Rico) - Mucinous carcinoma
Qatar (Hamad Medical Corporation) - Metastatic mucinous carcinoma, possibly Krukenberg tumor
Saudi Arabia (King Fahad National Guard Hospital) - Krukenberg tumor
Spain (Povisa) - Mucinous carcinoma (Krukenberg tumor)

Case 4 - Diagnosis:**Metastatic mucinous adenocarcinoma, ovary****T-87000, M-8480/6****Case 4 - References:**

- 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.
- Dickersin GR, Young RH, Scully RE: Signet-Ring Stromal And Related Tumors Of The Ovary. *Ultrastruct Pathol*, 1995 Sep-Oct; 19(5):401-19.
- Suarez A, Palacios J, Burgos E, Gamallo C: Signet-Ring Stromal Tumor Of The Ovary: A Histochemical, Immunohistochemical And Ultrastructural Study. *Virchows Arch [A] Pathol Anat Histopathol*, 1993 Jul; 422(4):333-6.

Escondido - Cortical carcinoma
Glendale - Adrenal cortical adenoma
Loma Linda University Medical Center Residents - Adrenal cortical neoplasm
San Francisco (San Francisco General Hospital) - Steroid cell tumor
Arkansas (University of Arkansas Medical Center) - Adrenal cortical adenoma, adrenal
Florida (Winter Haven Hospital) - Adrenal cortical carcinoma
Georgia, Decatur - Atypical adrenocortical tumor
Illinois (Heartland Regional Medical Center) - Adrenal cortical neoplasm
Indiana (Ball Memorial Hospital) - Adrenal cortical carcinoma
Kansas (Coffeyville Regional Medical Center) - Virilizing adrenal cortical tumor - ? adenoma
Kentucky (University of Louisville Residents) - Adrenal cortical carcinoma
Maryland (Johns Hopkins Medical Institute) - Adrenocortical carcinoma
Maryland (National Naval Medical Center) - Adrenocortical neoplasm, favor carcinoma
Maryland (University of Maryland Medical System Residents) - Adrenal cortical adenoma
Michigan (Pathology Services of West Michigan) - Adrenal cortical carcinoma
Michigan (St. Mary's Hospital) - Adrenal cortical carcinoma (1); Steroid cell tumor vs pheochromocytoma (2), favor steroid cell tumor (1)
Michigan, Niles - Adrenocortical adenoma
New York (Nassau University Medical Center) - Adrenal cortical carcinoma
New York (New York Stony Brook University Hospital Residents) - Adrenal cortical adenoma
New York (SUNY Downstate Residents) - Adrenal cortical adenoma
New York (Westchester Medical Center) - Steroid cell tumor
Pennsylvania (Drexel University College of Medicine) - Cortical adenoma
Rhode Island (Brown University/Rhode Island Hospital Residents) - Adrenal cortical adenoma
Texas (Scott & White Hospital) - Adrenal cortical neoplasm of indeterminate malignant potential
Texas (Baylor College of Medicine) - Adrenocortical adenoma
Texas, Crystal Beach - Adrenal cortical adenoma
Texas, Lubbock - Adrenal cortical carcinoma
Texas, San Antonio - Adrenocortical neoplasm, favor benign
West Virginia (Wetzel County Hospital) - Adrenal cortical carcinoma
Wisconsin, Marshfield - Adrenal cortical adenoma
Australia (Sullivan Nicolaides Pathology) - Adreno-cortical adenocarcinoma
Canada (Pasqua Hospital) - Adrenal cortical carcinoma
China (Sir Run Run Shaw Hospital) - Adrenocortical adenoma
Japan (Gunma University Hospital) - Cortical carcinoma
Japan (Hamamatsu University School of Medicine) - Adrenal cortical adenoma/carcinoma
Japan, Chiba - Adrenal cortical carcinoma with oncocytic features
Oman (Khoula Hospital) - Adrenal cortical tumour with oncocytic features, favour carcinoma over adenoma
Puerto Rico (University of Puerto Rico) - Benign adrenocortical neoplasm associated to Adrenogenital syndrome
Qatar (Hamad Medical Corporation) - Adrenal cortical carcinoma
Saudi Arabia (King Fahad National Guard Hospital) - Adrenal cortical tumor, probably malignant
Spain (Povisa) - Adrenal cortical carcinoma

Case 5 - Diagnosis:**Adrenal cortical neoplasm, probably malignant****T-93000, M-8370/3****Case 5 - References:**

- Atlas of Tumor Pathology, Third Series, Fascicle 19: *Tumors Of The Adrenal Gland And Extra-Adrenal Paraganglia*. Jack E. Armed Forces Institute Of Pathology, Washington, DC, 1990.
 Van Slooten H, Schaberg A, Smeenk D, Moolenaar AJ: Morphologic Characteristics Of Benign And Malignant Adrenocortical Tumors. *Cancer*, 1985 Feb 15; 55(4):766-73.
 Page DL, Hough AJ, Gray GF Jr.: Diagnosis And Prognosis Of Adrenocortical Neoplasms. *Arch Pathol Lab Med*, 1986 Nov; 110(11):993-4.
 Cibas ES, Medeiros LJ, Weinberg DS, et al: Cellular DNA Profiles Of Benign And Malignant Adrenocortical Tumors. *Am J Surg Pathol*, 1990 Oct; 14(10):948-55.

Escondido - Metastatic adenoid cystic carcinoma
Glendale - Adenoid cystic carcinoma
Loma Linda University Medical Center Residents - Mucoepidermoid carcinoma
San Francisco (San Francisco General Hospital) - Adenoid cystic carcinoma
Arkansas (University of Arkansas Medical Center) - Adenoid cystic carcinoma, metastatic to lung
Florida (Winter Haven Hospital) - Adenoid cystic carcinoma
Georgia, Decatur - Adenoid cystic carcinoma
Illinois (Heartland Regional Medical Center) - Adenoid cystic carcinoma
Indiana (Ball Memorial Hospital) - Adenoid cystic carcinoma
Kansas (Coffeyville Regional Medical Center) - Adenoid cystic carcinoma (cylindromatous pattern)
Kentucky (University of Louisville Residents) - Adenoid cystic carcinoma, metastatic
Maryland (Johns Hopkins Medical Institute) - Large cell neuroendocrine carcinoma
Maryland (National Naval Medical Center) - Adenoid cystic carcinoma
Maryland (University of Maryland Medical System Residents) - Adenoid cystic carcinoma
Michigan (Pathology Services of West Michigan) - Adenoid cystic carcinoma
Michigan (St. Mary's Hospital) - Mucus gland adenoma (3)
Michigan, Niles - Adenoid cystic carcinoma
New York (Nassau University Medical Center) - Adenoid cystic carcinoma
New York (New York Stony Brook University Hospital Residents) - Metastatic adenocarcinoma, NOS, probably lacrimal gland origin
New York (SUNY Downstate Residents) - Adenoid cystic carcinoma
New York (Westchester Medical Center) - Adenoid cystic carcinoma
Pennsylvania (Drexel University College of Medicine) - Adenoid cystic carcinoma
Rhode Island (Brown University/Rhode Island Hospital Residents) - Metastatic retinoblastoma
Texas (Scott & White Hospital) - Adenoid cystic carcinoma
Texas (Baylor College of Medicine) - Adenoid cystic carcinoma
Texas, Crystal Beach - Adenocarcinoma with mucin production, possibly adenoid cystic type
Texas, Lubbock - Adenoid cystic carcinoma
Texas, San Antonio - Adenoid cystic carcinoma
West Virginia (Wetzel County Hospital) - Adenoid cystic carcinoma
Wisconsin, Marshfield - Adenoid cystic carcinoma
Australia (Sullivan Nicolaides Pathology) - Adenoid cystic carcinoma, secondary
Canada (Pasqua Hospital) - Adenoid cystic carcinoma (metastatic)
China (Sir Run Run Shaw Hospital) - Adenoid cystic carcinoma, consider as metastasis
Japan (Gunma University Hospital) - Metastasis of adenoid cystic carcinoma
Japan (Hamamatsu University School of Medicine) - Adenoid cystic carcinoma, metastatic
Japan, Chiba - Adenoid cystic carcinoma
Oman (Khoula Hospital) - Adenoid cystic carcinoma with vascular tumour emboli
Puerto Rico (University of Puerto Rico) - Adenoid cystic carcinoma
Qatar (Hamad Medical Corporation) - Adenoid cystic carcinoma
Saudi Arabia (King Fahad National Guard Hospital) - Adenoid cystic carcinoma, metastatic
Spain (Povisa) - Adenoid cystic carcinoma

Case 6 - Diagnosis:**Adenoid cystic carcinoma, metastatic to lung****T-28000, M-8200/6****Case 6 - References:**

- Moran CA, Suster S, Koss MN: Primary Adenoid Cystic Carcinoma Of The Lung: A Clinicopathologic And Immunohistochemical Study Of 16 Cases. *Cancer*, 1994 Mar 1; 73(5):1390-97.
 Lawrence JB, Mazur MT: Adenoid Cystic Carcinoma: A Comparative Pathologic Study Of Tumors In Salivary Gland, Breast, Lung And Cervix. *Hum Pathol*, 1982 Oct; 13:916-24.
 Roggli VL. Editorial. Histologic Classification Of Lung Cancers. Factors Affecting Its Variability. *Am J Clin Pathol*, 1994 Apr; 101(4):411-2.

Escondido - Pigmented villonodular synovitis
Glendale - Pigmented villonodular synovitis
Loma Linda University Medical Center Residents - Pigmented villonodular synovitis
San Francisco (San Francisco General Hospital) - Giant cell tumor of tendon sheath
Arkansas (University of Arkansas Medical Center) - Pigmented villonodular synovitis, knee
Florida (Winter Haven Hospital) - Pigmented villonodular synovitis
Georgia, Decatur - Tenosynovial giant cell tumor, diffuse type
Illinois (Heartland Regional Medical Center) - Tenosynovial giant cell tumor, localized
Indiana (Ball Memorial Hospital) - Hemangioma ?
Kansas (Coffeyville Regional Medical Center) - Pigmented villonodular synovitis
Kentucky (University of Louisville Residents) - Pigmented villonodular synovitis
Maryland (Johns Hopkins Medical Institute) - Pigmented villonodular synovitis
Maryland (National Naval Medical Center) - Diffuse type giant cell tumor (pigmented villonodular synovitis)
Maryland (University of Maryland Medical System Residents) - Giant cell tumor of tendon sheath
Michigan (Pathology Services of West Michigan) - Pigmented villonodular synovitis
Michigan (St. Mary's Hospital) - Villonodular synovitis (1); DDX: Pigmented villonodular synovitis (PVS) vs tenosynovial giant cell tumor (TGCT), favor PVS (2)
Michigan, Niles - Pigmented villonodular synovitis
New York (Nassau University Medical Center) - Pigmented giant cell tumor of tendon sheath
New York (New York Stony Brook University Hospital Residents) - Pigmented villonodular synovitis
New York (SUNY Downstate Residents) - Pigmented villonodular synovitis/Tenosynovial giant cell tumor
New York (Westchester Medical Center) - Villonodular synovitis
Pennsylvania (Drexel University College of Medicine) - Pigmented nodular synovitis
Rhode Island (Brown University/Rhode Island Hospital Residents) - Pigmented villonodular tenosynovitis
Texas (Scott & White Hospital) - Pigmented villonodular synovitis
Texas (Baylor College of Medicine) - Giant cell tenosynovitis
Texas, Crystal Beach - Giant cell tumor of tendon sheath (villonodular tenosynovitis)
Texas, Lubbock - Pigmented villonodular synovitis
Texas, San Antonio - PVNS (pigmented villonodular synovitis)
West Virginia (Wetzel County Hospital) - Villonodular tenosynovitis
Wisconsin, Marshfield - Pigmented villonodular hyperplasia
Australia (Sullivan Nicolaides Pathology) - Pigmented villonodular synovitis
Canada (Pasqua Hospital) - Giant cell tumor of tendon sheath, diffuse type
China (Sir Run Run Shaw Hospital) - Tenosynovial giant cell tumor, diffuse type
Japan (Gunma University Hospital) - Pigmented villonodular synovitis
Japan (Hamamatsu University School of Medicine) - Pigmented villonodular synovitis
Japan, Chiba - Pigmented villonodular synovitis
Oman (Khoulal Hospital) - Pigmented villonodular synovitis
Puerto Rico (University of Puerto Rico) - Tenosynovial giant cell tumor (pigmented villonodular synovitis)
Qatar (Hamad Medical Corporation) - Pigmented villonodular synovitis
Saudi Arabia (King Fahad National Guard Hospital) - Pigmented villonodular synovitis
Spain (Povisa) - Pigmented villonodular synovitis

Case 7 - Diagnosis:

Pigmented villonodular synovitis (tenosynovial giant cell tumor), knee
T-Y9200, M-47830

Case 7 - References:

- Erler K, Demiralp B, Ozdemir MT, et al: Giant Cell Tumor Of Tendon Sheath Simulating Giant Cell Tumor Of Bone: Report Of A Case. *J Surg Orthop Adv*, 2004 Summer; 13(2):124-7.
 Gupta K, Dey P, Goldsmith R, Vasishta RK: Comparison Of Cytologic Features Of Giant-Cell Tumor And Giant-Cell Tumor Of Tendon Sheath. *Diagn Cytopathol*, 2004 Jan; 30(1):14-8.
 Mafee MF, Yang G, Tseng A, et al: Fibro-Osseous And Giant Cell Lesions, Including Brown Tumor Of The Mandible, Maxilla, And Other Craniofacial Bones. *Neuroimaging Clin N Am*, 2003 Aug; 13(3):525-40.
 Iyer VK, Kapila K, Verma K: Fine-Needle Aspiration Cytology Of Giant Cell Tumor Of Tendon Sheath. *Diagn Cytopathol*, 2003 Aug; 29(2):105-10.
 Monaghan H, Salter DM, Al-Nafussi A: Giant Cell Tumour Of Tendon Sheath (Localized Nodular Tenosynovitis): Clinicopathologic Features Of 71 Cases. *J Clin Pathol*, 2001 May; 54(5):404-7.

Escondido - Atypical Lipomatous tumor
Glendale - Fasciitis
Loma Linda University Medical Center Residents - Lipoma
San Francisco (San Francisco General Hospital) - Atypical lipoma
Arkansas (University of Arkansas Medical Center) - Atypical lipomatous tumor, thigh
Florida (Winter Haven Hospital) - Lipoma
Georgia, Decatur - Atypical lipomatous tumor
Illinois (Heartland Regional Medical Center) - Fibrolipoma
Indiana (Ball Memorial Hospital) - Angiolipoma
Kansas (Coffeyville Regional Medical Center) - Angiolipoma
Kentucky (University of Louisville Residents) - Well-differentiated liposarcoma
Maryland (Johns Hopkins Medical Institute) - Angiolipoma
Maryland (National Naval Medical Center) - Atypical lipomatous tumor (8); Well-differentiated liposarcoma (2)
Maryland (University of Maryland Medical System Residents) - Angiolipoma
Michigan (Pathology Services of West Michigan) - Well-differentiated liposarcoma
Michigan (St. Mary's Hospital) - Atypical lipoma (1); Lipomatous neoplasm, favor benign lipoma (2)
Michigan, Niles - Angiolipoma
New York (Nassau University Medical Center) - Angiolipoma
New York (New York Stony Brook University Hospital Residents) - Well-differentiated liposarcoma
New York (SUNY Downstate Residents) - Atypical lipomatous tumor
New York (Westchester Medical Center) - Angiolipoma
Pennsylvania (Drexel University College of Medicine) - Atypical lipoma/Well-differentiated liposarcoma
Rhode Island (Brown University/Rhode Island Hospital Residents) - Lipoma/Spindle cell lipoma
Texas (Scott & White Hospital) - Atypical lipoma
Texas (Baylor College of Medicine) - Well-differentiated liposarcoma
Texas, Crystal Beach - Lipoma
Texas, Lubbock - Well-differentiated carcinoma
Texas, San Antonio - Well-differentiated liposarcoma
West Virginia (Wetzel County Hospital) - Angiolipoma
Wisconsin, Marshfield - Fibrolipoma
Australia (Sullivan Nicolaides Pathology) - Massive localized lymphedema of the morbidly obese
Canada (Pasqua Hospital) - Atypical lipomatous tumor
China (Sir Run Run Shaw Hospital) - Lipoma
Japan (Gunma University Hospital) - Lipoma
Japan (Hamamatsu University School of Medicine) - Lipoma
Japan, Chiba - Well-differentiated liposarcoma
Oman (Khoula Hospital) - Lipomatous component of intramuscular hemangioma
Puerto Rico (University of Puerto Rico) - Well-differentiated liposarcoma
Qatar (Hamad Medical Corporation) - Lipoma
Saudi Arabia (King Fahad National Guard Hospital) - Angiolipoma
Spain (Povisa) - Angiolipoma

Case 8 - Diagnosis:

**Fibrolipoma with atypia ("Atypical lipoma"), thigh
T-Y9100, M-8851/0**

Case 8 - References:

Guillou L, Coindre JM: Newly Described Adipocytic Lesions. *Semin Diagn Pathol*, 2001 Nov; 18(4):238-49. Review.
Rubin BP, Dal Cin P: The Genetics Of Lipomatous Tumors. *Semin Diagn Pathol*, 2001 Nov; 18(4):286-93. Review.
Mentzel T: Cutaneous Lipomatous Neoplasms. *Semin Diagn Pathol*, 2001 Nov; 18(4):250-7. Review.

Escondido - Synovial sarcoma
Glendale - Monophasic synovial sarcoma
Loma Linda University Medical Center Residents - Synovial sarcoma
San Francisco (San Francisco General Hospital) - Monophasic synovial sarcoma
Arkansas (University of Arkansas Medical Center) - Synovial sarcoma, hip
Florida (Winter Haven Hospital) - Synovial sarcoma
Georgia, Decatur - Synovial sarcoma, monophasic type
Illinois (Heartland Regional Medical Center) - Monophasic synovial sarcoma
Indiana (Ball Memorial Hospital) - MPNST
Kansas (Coffeyville Regional Medical Center) - Low grade synovial sarcoma, predominantly spindle cell pattern
Kentucky (University of Louisville Residents) - Monomorphic synovial sarcoma
Maryland (Johns Hopkins Medical Institute) - Synovial sarcoma, monophasic
Maryland (National Naval Medical Center) - Synovial sarcoma, monophasic
Maryland (University of Maryland Medical System Residents) - Synovial sarcoma
Michigan (Pathology Services of West Michigan) - Synovial sarcoma
Michigan (St. Mary's Hospital) - Synovial sarcoma (3)
Michigan, Niles - Monomorphic synovial sarcoma
New York (Nassau University Medical Center) - Synovial sarcoma
New York (New York Stony Brook University Hospital Residents) - Synovial sarcoma, biphasic
New York (SUNY Downstate Residents) - Monomorphic synovial sarcoma
New York (Westchester Medical Center) - Synovial sarcoma
Pennsylvania (Drexel University College of Medicine) - Synovial sarcoma
Rhode Island (Brown University/Rhode Island Hospital Residents) - Synovial sarcoma (monophasic)
Texas (Scott & White Hospital) - Monophasic synovial sarcoma
Texas (Baylor College of Medicine) - Synovial sarcoma
Texas, Crystal Beach - Pericytoma likely
Texas, Lubbock - Monophasic synovial sarcoma
Texas, San Antonio - Synovial sarcoma
West Virginia (Wetzel County Hospital) - Monomorphic synovial sarcoma
Wisconsin, Marshfield - Synovial sarcoma
Australia (Sullivan Nicolaides Pathology) - Synovial sarcoma, monophasic
Canada (Pasqua Hospital) - Synovial sarcoma
China (Sir Run Run Shaw Hospital) - Synovial sarcoma
Japan (Gunma University Hospital) - Monophasic synovial sarcoma
Japan (Hamamatsu University School of Medicine) - Synovial sarcoma
Japan, Chiba - Hemangiopericytoma
Oman (Khoula Hospital) - Synovial sarcoma
Puerto Rico (University of Puerto Rico) - Synovial sarcoma, monophasic
Qatar (Hamad Medical Corporation) - Synovial sarcoma
Saudi Arabia (King Fahad National Guard Hospital) - Synovial sarcoma
Spain (Povisa) - Monophasic synovial sarcoma

Case 9 - Diagnosis:

Monophasic synovial sarcoma, hip
T-Y1500, M-9040/3

Case 9 - References:

- Fisher C: Synovial Sarcoma. *Ann Diagn Pathol*, 1998 Dec; 2(6):401-21. Review.
 Kawai A, Woodruff J, Healey JH, et al: SYT-SSX Gene Fusion As A Determinant Of Morphology And Prognosis In Synovial Sarcoma. *N Engl J Med*, 1998 Jan 15; 338(3):153-60.
 Viguier JM, Jimenez-Heffernan JA, Vicandi B, et al: Cytologic Features Of Synovial Sarcoma With Emphasis On The Monophasic Fibrous Variant. A Morphologic And Immunohistochemical Analysis Of bcl-2 Protein Expression. *Cancer*, 1998 Feb 25; 84(1):50-6.

Escondido - Atypical (symplastic) leiomyoma
Glendale - Symplastic leiomyoma
Loma Linda University Medical Center Residents - Leiomyosarcoma
San Francisco (San Francisco General Hospital) - Anaplastic stromal sarcoma
Arkansas (University of Arkansas Medical Center) - Atypical (symplastic) leiomyoma, uterus
Florida (Winter Haven Hospital) - Leiomyosarcoma
Georgia, Decatur - Leiomyosarcoma
Illinois (Heartland Regional Medical Center) - Leiomyosarcoma
Indiana (Ball Memorial Hospital) - Symplastic leiomyoma
Kansas (Coffeyville Regional Medical Center) - Bizarre (symplastic) leiomyoma
Kentucky (University of Louisville Residents) - Leiomyosarcoma
Maryland (Johns Hopkins Medical Institute) - Leiomyosarcoma
Maryland (National Naval Medical Center) - Leiomyosarcoma (9); Smooth muscle tumor of uncertain malignant potential (1)
Maryland (University of Maryland Medical System Residents) - Symplastic leiomyoma
Michigan (Pathology Services of West Michigan) - Leiomyosarcoma
Michigan (St. Mary's Hospital) - Leiomyoma (1); DDX: Low grade LMS vs atypical leiomyoma, favor atypical leiomyoma (1);
 DDX: Low grade leiomyosarcoma versus atypical leiomyoma, favor the latter (1)
Michigan, Niles - Symplastic leiomyoma
New York (Nassau University Medical Center) - Cellular leiomyomatosis
New York (New York Stony Brook University Hospital Residents) - STUMP vs leiomyosarcoma
New York (SUNY Downstate Residents) - Leiomyosarcoma
New York (Westchester Medical Center) - Leiomyosarcoma
Pennsylvania (Drexel University College of Medicine) - STUMP
Rhode Island (Brown University/Rhode Island Hospital Residents) - Atypical leiomyoma (bizarre leiomyoma)
Texas (Scott & White Hospital) - Leiomyosarcoma
Texas (Baylor College of Medicine) - Leiomyosarcoma
Texas, Crystal Beach - Leiomyoma, atypical
Texas, Lubbock - Leiomyosarcoma
Texas, San Antonio - Leiomyosarcoma
West Virginia (Wetzel County Hospital) - Atypical leiomyoma/symplastic leiomyoma
Wisconsin, Marshfield - Leiomyosarcoma
Australia (Sullivan Nicolaides Pathology) - Leiomyosarcoma
Canada (Pasqua Hospital) - Atypical leiomyoma with low risk of recurrence
China (Sir Run Run Shaw Hospital) - Leiomyosarcoma
Japan (Gunma University Hospital) - Leiomyosarcoma
Japan (Hamamatsu University School of Medicine) - Pleomorphic leiomyoma
Japan, Chiba - Atypical leiomyoma
Oman (Khoula Hospital) - Symplastic leiomyoma
Puerto Rico (University of Puerto Rico) - Smooth muscle tumor of uncertain malignant potential (STUMP)
Qatar (Hamad Medical Corporation) - Leiomyosarcoma
Saudi Arabia (King Fahad National Guard Hospital) - Symplastic leiomyoma
Spain (Povisa) - Atypical bizarre, symplastic leiomyoma

Case 10 - Diagnosis:**Uterine leiomyosarcoma****T-82000, M-88903****Director's Note:** Note the presence of coagulative necrosis.” (drc)**Case 10 - References:**

- Wu TI, Chang TC, Hsueh S, et al: Prognostic Factors And Impact Of Adjuvant Chemotherapy For Uterine Leiomyosarcoma. *Gynecol Oncol*, 2006 Jan; 100(1):166-72.
- Cho YL, Bae S, Koo MS, et al: Array Comparative Genomic Hybridization Analysis Of Uterine Leiomyosarcoma. *Gynecol Oncol*, 2005 Dec; 99(3):545-51.
- Hu J, Rao UN, Jasani S, et al: Loss Of DNA Copy Number Of 10q Is Associated With Aggressive Behavior Of Leiomyosarcomas: A Comparative Genomic Hybridization Study. *Cancer Genet Cytogenet*, 2005 Aug; 161(1):20-7.
- Raspollini MR, Pinzani P, Simi L, et al: Uterine Leiomyosarcomas Express KIT Protein But Lack Mutation(s) In Exon 9 of C-KIT. *Gynecol Oncol*, 2005 Aug; 98(2):334-5.

