



CALIFORNIA
TUMOR TISSUE REGISTRY

“PATHOLOGY of the DIGESTIVE SYSTEM”

Minutes – Subscription A

September 2011



SUGGESTED READING (General Topics from Recent Literature):

- Helicobacter pylori-negative gastritis: seek, yet ye shall not always find. *Am J Surg Pathol* 2010; Aug;34(8): pe25-34. Genta RM; Lash RH.
- Surveillance for hepatocellular carcinoma: development and validation of an algorithm to classify tests in administrative and laboratory data. *Dig Dis Sci* 2010; Nov;55(11): p3241-51 Richardson P; Henderson L, et al.
- Primary gastric inflammatory myofibroblastic tumor: a clinicopathologic and immunohistochemical study of 5 cases. *Pathol Res Pract* 2010; May 15;206(5): p287-91 Shi H; Wei L, et al.
- MALT lymphoma and Kaposi sarcoma in an HIV-negative patient. *Am J Hematol* 2010; Oct;85(10): p815-7. Mirabile A; Devizzi L, et al.
- Gastric syphilis: a systematic review of published cases of the last 50 years. *Sex Transm Dis* 2010; Mar;37(3): p177-83. Mylona EE; Baraboutis IG, et al.
- Long-term clinical outcome of patients with gastric gastrointestinal stromal tumors. *Dig Dis Sci* 2010; Oct;55(10): p2893-8. Maor Y; Avidan B, et al.

California Tumor Tissue Registry
c/o: Department of Pathology and Human Anatomy
Loma Linda University School of Medicine
11021 Campus Avenue, AH 335
Loma Linda, California 92350
(909) 558-4788
FAX: (909) 558-0188
E-mail: ctr@linkline.com
Web site & Case of the Month: www.ctr.org

FILE DIAGNOSES

CTTR Subscription A

September 2011

Case 1:

Sclerosing mesenteritis (mesenteric panniculitis ossificans)
T-64200, M-4000

Case 2:

Adenosquamous carcinoma, gallbladder
T-57000, M-85603

Case 3:

Gastric lymphoid hyperplasia (pseudolymphoma), stomach
T-63000, M-72200

Case 4:

Undifferentiated (“anaplastic”) carcinoma, stomach
T-63000, M-80213

Case 5:

Epithelioid malignant neoplasm, GIST vs. leiomyosarcoma, stomach
T-63000, M-88913

Case 6:

Gastrointestinal stromal tumor (GIST), stomach
T-63000, M-88903

Case 7:

Mucinous adenocarcinoma, stomach
T-63000, M-81403

Case 8:

Carcinoid tumor, rectum
T-68000, M-82401

Case 9:

Cholangiocarcinoma, liver
T-56000, M-81603

Case 10:

Hepatocellular carcinoma, liver
T-56000, M-81703

Arcadia (ABC Laboratories) - Ossified mesenteric fibroma
Baldwin Park (Kaiser Permanente Medical Center) - Inflammatory pseudotumor with metaplastic ossification (4)
Fontana (Kaiser Permanente) - Sclerosing mesenteritis
Hayward (St. Rose Hospital) - Heterotopic mesenteric ossification
Long Beach (Long Beach Veterans) - Inflammatory pseudotumor with osseous metaplasia
Alameda (Alameda County Medical Center) - Calcifying fibrous pseudotumor
Oxnard (St. John's Regional Medical Center) - Mesenteric ossification
Santa Barbara (Miramonte Laboratory) - Desmoid
Woodland Hills (Kaiser Permanente) - Mesenteric panniculitis/sclerosing mesenteritis
Arkansas (Associated Pathologists Laboratory) - Desmoid tumor with osseous metaplasia
Colorado (McKee Medical Center) - Calcifying fibrous pseudotumor
Florida (Pathology Associates) - Ossified fat necrosis
Georgia, Atlanta - Gardner fibroma/osteoma
Georgia (Oconee Regional Medical Center) - Pancreatic neuroendocrine tumor
Illinois (Heartland Regional Medical Center) - Inflammatory myofibroblastic tumor, rule out sclerosing mesenteritis
Illinois (Loyola University of Chicago) - Sclerosing mesenteritis
Indiana (Allen Memorial Hospital) - Heterotopic mesenteric ossification
Indiana, Indianapolis - Sclerosing mesenteritis with bone formation ossification
Maryland (University of Maryland) - Desmoid tumor
Massachusetts (Tafts Medical Center) - Heterotopic mesentery
Massachusetts (University of Massachusetts Medical Center) - Inflammatory myofibroblastic tumor, mesentery
Michigan, Caledonia - Metaplastic ossification, mesentery
Minnesota (Fairview Ridges Hospital) - Sclerosing mesenteritis
Missouri (Missouri Delta Medical Center) - Benign pseudotumor consistent with ossification
Nebraska (Creighton University Medical Center) - Heterotopic ossification
New York (Buffalo General Hospital) - Idiopathic sclerosing mesenteritis
New York (SUNY Stony Brook University Hospital) - Sclerosing mesenteritis
Ohio (Cleveland Clinic) - Heterotopic mesenteric ossification
Ohio, Columbus - Ossifying fibroma
Ohio, Union Town - Heterotopic mesenteric ossification vs. sclerosing mesenteritis
Ohio (University of Toledo) - Inflammatory myofibroblastic tumor
Pennsylvania (Conemaugh Memorial Medical Center) - Pseudotumor with bone metaplasia
Pennsylvania (Lehigh Valley Hospital) - Sclerosing mesenteritis
Pennsylvania (Magee Women's Hospital) - Calcifying fibrous tumor, mesentery
Puerto Rico (University of Puerto Rico) - Inflammatory myofibroblastic tumor
South Carolina (Lexington Medical Center) - Heterotopic mesenteric bone
Texas, Crystal Beach - Fibromatosis consistent with lymphoplasmocytic inflammatory reaction
Texas, Lubbock - Dystrophic calcification
Washington (Seattle VA Medical Center) - Chronic mesenteritis with some tissue formation/calcification
West Virginia (Greenbrier Valley Medical Center) - Heterotopic mesenteric ossification
Wisconsin, Madison - Heterotopic mesenteric ossification, osseous metaplasia
Wisconsin (Medical Assessment and Consultation, S.C.) - Mesenteric fibromatosis with osseous metaplasia
Australia (Royal Hobart Hospital) - Calcifying fibrous pseudotumor
Australia (St. Vincent's Hospital) - Mesentery calcifying fibrous pseudotumor
Canada (Pasqua Hospital) - Idiopathic retroperitoneal fibrosis
Canada (University of Sherbrooke) - Castleman disease hyalinizing type
Ireland (Connolly Hospital) - Sclerosing mesenteritis
Japan (Aichi Medical University Hospital) - Inflammatory myofibroblastic tumor
Japan (Asahi General Hospital) - Heterotopic mesenteric ossification (1); Mesenteric nodule with calcification (1)
Japan (Setagaya-Ku) - Calcifying fibrous tumor
Japan (Shizuoka Tokushukai Hospital) - Sclerosing mesenteritis
Japan (University of Yamanashi) - Ossification, NOS
Oman (Sultanate of Azaiba) - Sclerosing mesenteritis/calcifying fibrous tumor (pseudotumor)

Case 1 - Diagnosis:

Sclerosing mesenteritis (mesenteric panniculitis ossificans)
T-64200, M-40000

Case 1 - References:

Cutaneous sclerosis: a previously undescribed manifestation of sclerosing mesenteritis.. *Arch Dermatol* 2010; Sep;146(9): p1009-13. Hinds BR; Bahrami S; Bernardi JM; Callen JP.
Sclerosing mesenteritis involving the pancreas: a mimicker of pancreatic cancer. *Am J Surg Pathol* 2010; Apr;34(4): p447-53. Scudiere JR; Shi C, et al.
Sclerosing mesenteritis. *Surgery* 2001; Apr;129(4): p509-10. Cuff R; Landercasper J; Schlack S.
Beta-catenin immunohistochemistry separates mesenteric fibromatosis from gastrointestinal stromal tumor and sclerosing mesenteritis. *Am J Surg Pathol* 2002; Oct;26(10): p1296-301. Montgomery E; Torbenson MS; Kaushal M; Fisher C; Abraham SC.
Sclerosing mesenteritis with occult ileal perforation: report of a case simulating extensive intra-abdominal malignancy. *Dis Colon Rectum* 2004; Nov;47(11): p1974-7. Mathew J; McKenna F, et al.

Case No. 2, Accession No. 31404

September 2011

Arcadia (ABC Laboratories) - Mucinous adenocarcinoma
Baldwin Park (Kaiser Permanente Medical Center) - Invasive carcinoma (non-small cell) (1); Adenocarcinoma of gallbladder (3)
Fontana (Kaiser Permanente) - Adenocarcinoma
Hayward (St. Rose Hospital) - Adenocarcinoma in porcelain gallbladder
Long Beach (Long Beach Veterans) - Adenosquamous carcinoma
Alameda (Alameda County Medical Center) - Adenocarcinoma
Oxnard (St. John's Regional Medical Center) - Adenosquamous carcinoma
Santa Barbara (Miramonte Laboratory) - Adenocarcinoma
Woodland Hills (Kaiser Permanente) - Adenosquamous carcinoma
Arkansas (Associated Pathologists Laboratory) - Adenocarcinoma of gallbladder
Colorado (McKee Medical Center) - Adenocarcinoma, likely gallbladder origin
Florida (Pathology Associates) - Adenocarcinoma of the gallbladder
Georgia, Atlanta - Adenocarcinoma
Georgia (Oconee Regional Medical Center) - Low grade mucoepidermoid carcinoma
Illinois (Heartland Regional Medical Center) - Adenocarcinoma
Illinois (Loyola University of Chicago) - Adenocarcinoma with focal squamous differentiation
Indiana (Allen Memorial Hospital) - Adenosquamous carcinoma
Indiana, Indianapolis - Adenocarcinoma
Maryland (University of Maryland) - Adenosquamous carcinoma
Massachusetts (Tafts Medical Center) - Cholangiocarcinoma
Massachusetts (University of Massachusetts Medical Center) - Poorly differentiated adenocarcinoma, gallbladder
Michigan, Caledonia - Invasive adenocarcinoma, moderately-differentiated, gallbladder
Minnesota (Fairview Ridges Hospital) - Adenosquamous carcinoma
Missouri (Missouri Delta Medical Center) - Adenosquamous cancer of gallbladder
Nebraska (Creighton University Medical Center) - Adenocarcinoma with focal squamous differentiation
New York (Buffalo General Hospital) - Invasive poorly differentiated adenocarcinoma
New York (SUNY Stony Brook University Hospital) - Poorly differentiated adenocarcinoma of the gallbladder with marked sclerosis
Ohio (Cleveland Clinic) - Invasive adenocarcinoma, favor metastasis
Ohio, Columbus - Adenocarcinoma
Ohio, Union Town - Poorly differentiated adenocarcinoma
Ohio (University of Toledo) - Carcinoma of the gallbladder
Pennsylvania (Conemaugh Memorial Medical Center) - Poorly differentiated adenocarcinoma
Pennsylvania (Lehigh Valley Hospital) - Adenosquamous carcinoma
Pennsylvania (Magee Women's Hospital) - Adenocarcinoma, gallbladder
Puerto Rico (University of Puerto Rico) - Gallbladder, adenocarcinoma

South Carolina (Lexington Medical Center) - Invasive adenocarcinoma
Texas, Crystal Beach - Adenocarcinoma in chronic cholecystitis
Texas, Lubbock - Adenocarcinoma of gallbladder
Washington (Seattle VA Medical Center) - Ductal carcinoma
West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma, NOS
Wisconsin, Madison - Adenocarcinoma, gallbladder
Wisconsin (Medical Assessment and Consultation, S.C.) - Adenosquamous carcinoma of gallbladder
Australia (Royal Hobart Hospital) - Adenosquamous carcinoma, gallbladder
Australia (St. Vincent's Hospital) - Gallbladder, adenocarcinoma
Canada (Pasqua Hospital) - Adenosquamous carcinoma
Canada (University of Sherbrooke) - Poorly differentiated carcinoma
Ireland (Connolly Hospital) - Invasive moderately differentiated adenocarcinoma
Japan (Aichi Medical University Hospital) - Adenosquamous cell carcinoma
Japan (Asahi General Hospital) - Mucinous carcinoma (1); Adenocarcinoma of the gallbladder (1)
Japan (Setagaya-Ku) - Adenocarcinoma, gallbladder
Japan (Shizuoka Tokushukei Hospital) - Carcinoid tumor
Japan (University of Yamanashi) - Adenosquamous carcinoma
Oman (Sultanate of Azaiba) - Adenosquamous carcinoma

Case 2 - Diagnosis:

Adenosquamous carcinoma, gallbladder
 T-57000, M-85603

Consultation: Mayo Clinic; Gary L. Keeney, M.D. "Gallbladder, excision: Moderately differentiated adenosquamous carcinoma".

Case 2 - References:

Gallbladder adenosquamous cell carcinoma: report of two cases. *Acta Gastroenterol Belg* 2005; Oct-Dec;68(4): p440-2.
 Akcali Z; Ozyilkan O, et al.
 Adenosquamous carcinoma of the gallbladder warrants resection only if curative resection is feasible. *Cancer* 2002; Jun 1;94(11): p3000-5. Oohashi Y; Shirai Y, et al.
 The value of p53 protein expression in gallbladder carcinoma: analysis of 60 cases. *Hepatogastroenterology* 2004; Sep-Oct;51(59): p1310-4. da Rocha AO; Coutinho LM, et al.
 Squamous and adenosquamous cell carcinomas of the gallbladder. *J Exp Clin Cancer Res* 2005; Mar;24(1): p143-50.
 Mingoli A; Brachini G, et al.
 Adenosquamous carcinoma of the gallbladder. *Hepatogastroenterology* 2002; Sep-Oct;49(47): p1230-4. Kondo M; Dono K, etc.

Case No. 3, Accession No. 12590

September 2011

Arcadia (ABC Laboratories) - Malignant lymphoma, MALT type
Baldwin Park (Kaiser Permanente Medical Center) - Lymphoma (2); Lymphoid hyperplasia, rule out lymphoma (1);
 Adenocarcinoma of the gallbladder (1)
Fontana (Kaiser Permanente) - MALT lymphoma
Hayward (St. Rose Hospital) - Intestinal metaplasia with LG dysplasia, reactive lymphoid hyperplasia
Long Beach (Long Beach Veterans) - Reactive lymphoid hyperplasia (pseudolymphoma)
Alameda (Alameda County Medical Center) - Lymphoma
Oxnard (St. John's Regional Medical Center) - Consistent with perforation
Santa Barbara (Miramonte Laboratory) - Amyloidosis
Woodland Hills (Kaiser Permanente) - Lymphoma, MALT-type
Arkansas (Associated Pathologists Laboratory) - Gastric lymphoid hyperplasia
Colorado (McKee Medical Center) - Chronic active gastritis with helicobacter
Florida (Pathology Associates) - Atypical lymphoid infiltrate, rule out MALT lymphoma with appropriate studies
Georgia, Atlanta - MALT lymphoma
Georgia (Oconee Regional Medical Center) - Medullary carcinoma with amyloid stroma

Illinois (Heartland Regional Medical Center) - Probable MALT lymphoma, requires further evaluation
Illinois (Loyola University of Chicago) - Low grade lymphoma, Maltoma
Indiana (Allen Memorial Hospital) - Gastric marginal zone B-cell lymphoma
Indiana, Indianapolis - Possible MALT lymphoma
Maryland (University of Maryland) - Neurofibroma
Massachusetts (Tafts Medical Center) - Gastric adenocarcinoma, signet ring type
Massachusetts (University of Massachusetts Medical Center) - Lymphoma, stomach
Michigan, Caledonia - MALT lymphoma, low grade, stomach
Minnesota (Fairview Ridges Hospital) - Marginal zone B-cell lymphoma, MALT type
Missouri (Missouri Delta Medical Center) - MALT lymphoma
Nebraska (Creighton University Medical Center) - MALT lymphoma
New York (Buffalo General Hospital) - Gastric mucosa-associated lymphoid tumor with plasmacytic differentiation
New York (SUNY Stony Brook University Hospital) - Lymphoid hyperplasia rule out Maltoma
Ohio (Cleveland Clinic) - MALT lymphoma
Ohio, Columbus - Chronic gastritis with prominent lymphoid follicle formation, no helicobacter pylori identified
Ohio, Union Town - Gastric Crohn's disease
Ohio (University of Toledo) - MALT lymphoma
Pennsylvania (Conemaugh Memorial Medical Center) - H-pylori associated hyperplastic gastritis with atypical lymphoid proliferation
Pennsylvania (Lehigh Valley Hospital) - Pseudolymphoma
Pennsylvania (Magee Women's Hospital) - MALT lymphoma, stomach
Puerto Rico (University of Puerto Rico) - Extranodal marginal zone lymphoma of mucosa-associated lymphoid tissue
South Carolina (Lexington Medical Center) - Gastric marginal zone B-cell lymphoma (MALToma)
Texas, Crystal Beach - Peptic ulcer consistent with lymphoid hyperplasia
Texas, Lubbock - Marginal lymphoma
Washington (Seattle VA Medical Center) - Chronic active gastritis with extensive fibrosis (no ulceration in sample)
West Virginia (Greenbrier Valley Medical Center) - Plasmacytoma
Wisconsin, Madison - Benign ulcer with prominent lymphoid infiltration, rule out low grade B-cell lymphoma of MALT; rule out amyloidosis
Wisconsin (Medical Assessment and Consultation, S.C.) - Non-Hodgkin lymphoma, mucosa associated lymphoid tissue type
Australia (Royal Hobart Hospital) - MALT lymphoma
Australia (St. Vincent's Hospital) - Stomach, MALT lymphoma, intestinal metaplasia and amyloid deposition
Canada (Pasqua Hospital) - Benign lymphoid hyperplasia
Canada (University of Sherbrooke) - Follicular lymphoma, grade II
Ireland (Connolly Hospital) - Inflammatory fibroid polyp
Japan (Aichi Medical University Hospital) - Inflammatory pseudotumor
Japan (Asahi General Hospital) - Follicular lymphoma (1); MALT lymphoma (1)
Japan (Setagaya-Ku) - Pseudolymphoid hyperplasia
Japan (Shizuoka Tokushukei Hospital) - Pseudolymphoma
Japan (University of Yamanashi) - Malignant lymphoma
Oman (Sultanate of Azaiba) - Differential diagnosis (1); Pseudolymphoma (2); Low grade malignant lymphoma of MALT type

Case 3 - Diagnosis:

Gastric lymphoid hyperplasia (pseudolymphoma), stomach
 T-63000, M-72200

Consultation: Stanford University: "Nodular lymphoid hyperplasia/pseudolymphoma".

Director's note: This case appeared in several publications by the late Dr. Klaus Lewin. (drc)

Case 3 - References:

Helicobacter pylori associated gastric diseases and lymphoid tissue hyperplasia in gastric antral mucosa. *J Clin Pathol* 2002; Feb;55(2): p133-7. Chen XY; Liu WZ; Shi Y; Zhang DZ; Xiao SD; Tytgat GN.
 Primary Lung Small B-Cell Lymphoma versus Lymphoid Hyperplasia: Evaluation of Diagnostic Criteria in 26 Cases. *Am J Surg Pathol* 2002; Jan;26(1): p76-81. Begueret H; Vergier B, et al.

Severe gastritis secondary to Epstein-Barr viral infection. Unusual presentation of infectious mononucleosis and associated diffuse lymphoid hyperplasia in gastric mucosa. *Arch Pathol Lab Med* 2003; Apr;127(4): p478-80. Zhang Y; Molot R.

Lymphoid hyperplasia of the stomach: radiographic findings in five adult patients. *AJR Am J Roentgenol* 2001; Jul;177(1): p71-5. Torigian DA; Levine MS, et al.

Resolution of nodular lymphoid hyperplasia of the gastrointestinal tract following chemotherapy for extraintestinal lymphoma. *Dig Dis Sci* 2002; Nov;47(11): p2463-5. Jonsson OT; Birgisson S; Reykdal S.

Case No. 4, Accession No. 12484

September 2011

Arcadia (ABC Laboratories) - Undifferentiated large cell malignant neoplasm

Baldwin Park (Kaiser Permanente Medical Center) - Poorly differentiated non-small cell carcinoma (1); Poorly differentiated gastric carcinoma (3)

Fontana (Kaiser Permanente) - Signet ring cell carcinoma

Hayward (St. Rose Hospital) - Undifferentiated (diffuse) carcinoma

Long Beach (Long Beach Veterans) - Poorly differentiated carcinoma, NOS

Alameda (Alameda County Medical Center) - Poorly differentiated carcinoma

Oxnard (St. John's Regional Medical Center) - Poorly differentiated carcinoma

Santa Barbara (Miramonte Laboratory) - Neuroendocrine carcinoma

Woodland Hills (Kaiser Permanente) - Poorly differentiated carcinoma (germ cell tumor, eosinophilic globules)

Arkansas (Associated Pathologists Laboratory) - Choriocarcinoma

Colorado (McKee Medical Center) - Undifferentiated carcinoma

Florida (Pathology Associates) - Diffuse poorly differentiated adenocarcinoma with signet ring cells

Georgia, Atlanta - Choriocarcinoma

Georgia (Oconee Regional Medical Center) - Poorly differentiated follicular carcinoma, insular

Illinois (Heartland Regional Medical Center) - Poorly differentiated anaplastic carcinoma, rule out malignant GIST

Illinois (Loyola University of Chicago) - Choriocarcinoma

Indiana (Allen Memorial Hospital) - High grade epithelioid angiosarcoma

Indiana, Indianapolis - Epithelioid angiosarcoma

Maryland (University of Maryland) - Epithelioid angiosarcoma

Massachusetts (Tafts Medical Center) - Epithelioid angiosarcoma

Massachusetts (University of Massachusetts Medical Center) - Poorly differentiated carcinoma, stomach

Michigan, Caledonia - Poorly differentiated adenocarcinoma, diffuse type, stomach

Minnesota (Fairview Ridges Hospital) - Choriocarcinoma

Missouri (Missouri Delta Medical Center) - High grade cancer, NOS

Nebraska (Creighton University Medical Center) - Poorly differentiated adenocarcinoma vs. epithelioid angiosarcoma

New York (Buffalo General Hospital) - Poorly differentiated carcinoma

New York (SUNY Stony Brook University Hospital) - Poorly differentiated carcinoma, rule out choriocarcinoma

Ohio (Cleveland Clinic) - Angiosarcoma

Ohio, Columbus - Poorly differentiated carcinoma, favor adenocarcinoma

Ohio, Union Town - Undifferentiated carcinoma

Ohio (University of Toledo) - Poorly differentiated gastric carcinoma

Pennsylvania (Conemaugh Memorial Medical Center) - Undifferentiated carcinoma

Pennsylvania (Lehigh Valley Hospital) - Hepatoid gastric carcinoma

Pennsylvania (Magee Women's Hospital) - Angiosarcoma, epithelioid, liver

Puerto Rico (University of Puerto Rico) - Epithelioid angiosarcoma/poorly differentiated adenocarcinoma

South Carolina (Lexington Medical Center) - Invasive poorly differentiated adenocarcinoma

Texas, Crystal Beach - Adenocarcinoma stomach infiltrating

Texas, Lubbock - Adenocarcinoma of stomach

Washington (Seattle VA Medical Center) - Carcinoma with high grade growth pattern

West Virginia (Greenbrier Valley Medical Center) - Gastric adenocarcinoma

Wisconsin, Madison - Poorly differentiated adenocarcinoma

Wisconsin (Medical Assessment and Consultation, S.C.) - High grade carcinoma with focal signet ring cell adenocarcinoma

Australia (Royal Hobart Hospital) - Choriocarcinoma, stomach

Australia (St. Vincent's Hospital) - Stomach, angiosarcoma
Canada (Pasqua Hospital) - Angiosarcoma
Canada (University of Sherbrooke) - Poorly differentiated adenocarcinoma
Ireland (Connolly Hospital) - Poorly differentiated carcinoma
Japan (Aichi Medical University Hospital) - Hepatoid adenocarcinoma
Japan (Asashi General Hospital) - Hepatoid adenocarcinoma (1); Acinar cell carcinoma (1)
Japan (Setagaya-Ku) - Adenocarcinoma, poorly differentiated
Japan (Shizuoka Tokushukai Hospital) - Carcinoid tumor
Japan (University of Yamanashi) - Poorly differentiated adenocarcinoma (1); Epithelioid angiosarcoma (1)
Oman (Sultanate of Azaiba) - Poorly differentiated carcinoma

Case 4 - Diagnosis:

Undifferentiated ("anaplastic") carcinoma, stomach
 T-63000, M-80213

Director's note: CD31 and CD34 were negative. (drc)

Case 4 - References:

Gastric cancer histology: clinicopathologic characteristics and prognostic value. *J Surg Oncol* 2008; Dec 1;98(7): p520-5. Park JM; Jang YJ, et al.
 The effect of Helicobacter pylori eradication on reducing the incidence of gastric cancer. *J Clin Gastroenterol* 2008; Mar;42(3): p279-83. Ogura K; Hirata Y, et al.
 Molecular characterization of undifferentiated-type gastric carcinoma. *Lab Invest* 2001; Apr;81(4): p593-8. Tamura G; Sato K; Akiyama S; Tsuchiya T; Endoh Y; Usuba O; Kimura W; Nishizuka S; Motoyama T, et al.
 Tumor diameter as a prognostic factor in patients with gastric cancer. *Ann Surg Oncol* 2008; Jul;15(7): p1959-67. Kunisaki C; Makino H, et al.
 Epithelioid angiosarcoma: a neoplasm with potential diagnostic challenges. *Diagn Cytopathol* 2010; Feb;38(2): p154-8. Lin CF; De Frias D; Lin X.

Case No. 5, Accession No. 12379

September 2011

Arcadia (ABC Laboratories) - Leiomyosarcoma
Baldwin Park (Kaiser Permanente Medical Center) - GIST, epithelioid (4)
Fontana (Kaiser Permanente) - GIST
Hayward (St. Rose Hospital) - Leiomyoma vs. GIST
Long Beach (Long Beach Veterans) - Gastrointestinal stromal tumor (GIST), malignant, epithelioid type
Alameda (Alameda County Medical Center) - GIST (epithelioid)
Oxnard (St. John's Regional Medical Center) - GIST
Santa Barbara (Miramonte Laboratory) - Gastrointestinal stromal tumor
Woodland Hills (Kaiser Permanente) - GIST
Arkansas (Associated Pathologists Laboratory) - Undifferentiated carcinoma
Colorado (McKee Medical Center) - Gastrointestinal stromal tumor
Florida (Pathology Associates) - Epithelioid GIST vs. need CD117, CD34, etc.
Georgia, Atlanta - Gastrointestinal stromal tumor, probably malignant
Illinois (Heartland Regional Medical Center) - GIST
Illinois (Loyola University of Chicago) - Epithelioid gastrointestinal stromal tumor
Indiana (Allen Memorial Hospital) - Epithelioid gastric stromal tumor
Indiana, Indianapolis - Epithelioid GIST
Maryland (University of Maryland) - Epithelioid gastrointestinal stromal tumor
Massachusetts (Tafts Medical Center) - Ganglioneuroma
Massachusetts (University of Massachusetts Medical Center) - Gastrointestinal stromal tumor, stomach
Michigan, Caledonia - Ganglioneuroma, stomach
Minnesota (Fairview Ridges Hospital) - Gastrointestinal stromal tumor
Missouri (Missouri Delta Medical Center) - Leiomyosarcoma vs. epithelioid GIST

Nebraska (Creighton University Medical Center) - Atypical nerve sheath tumor vs. epithelioid GIST
New York (Buffalo General Hospital) - Malignant epithelioid gastrointestinal stromal tumor
New York (SUNY Stony Brook University Hospital) - Epithelioid GIST
Ohio (Cleveland Clinic) - Epithelioid GIST
Ohio, Columbus - Favor GIST
Ohio, Union Town - Epithelioid GIST
Ohio (University of Toledo) - Gastrointestinal stromal tumor, epithelioid
Pennsylvania (Conemaugh Memorial Medical Center) - GIST
Pennsylvania (Lehigh Valley Hospital) - Epithelioid GIST
Pennsylvania (Magee Women's Hospital) - GIST, epithelioid, stomach
Puerto Rico (University of Puerto Rico) - Epithelioid gastrointestinal stromal tumor, low to intermediate risk
South Carolina (Lexington Medical Center) - Gastrointestinal stromal tumor, epithelioid variant, low to intermediate risk
Texas, Crystal Beach - Carcinoma consistent with large cell features, possibly metastatic
Texas, Lubbock - Leiomyosarcoma
Washington (Seattle VA Medical Center) - Neoplasm consistent with spindle and epithelioid cells (need ICC), probably GI stromal
West Virginia (Greenbrier Valley Medical Center) - Linitis plastica
Wisconsin, Madison - Gastrointestinal stromal tumor, epithelioid type
Wisconsin (Medical Assessment and Consultation, S.C.) - Neoplasm most consistent with epithelioid gastrointestinal stromal tumor (would do IHC)
Australia (Royal Hobart Hospital) - GIST (low risk of malignant behavior)
Australia (St. Vincent's Hospital) - Stomach, epithelioid gastrointestinal stromal tumor (low risk for progressive disease)
Canada (Pasqua Hospital) - GIST
Canada (University of Sherbrooke) - Gastrointestinal stromal tumor, epithelioid variant
Ireland (Connolly Hospital) - Epithelioid GIST
Japan (Aichi Medical University Hospital) - GIST, epithelioid cell
Japan (Asashi General Hospital) - Gastrointestinal stromal tumor (1); Metastatic carcinoma, rule out granular cell tumor (1)
Japan (Setagaya-Ku) - Leiomyosarcoma
Japan (Shizuoka Tokushukei Hospital) - GIST
Japan (University of Yamanashi) - Gastrointestinal stromal tumor, epithelioid
Oman (Sultanate of Azaiba) - Epithelioid tumor/gastrointestinal stromal tumor

Case 5 - Diagnosis:

Epithelioid malignant neoplasm, GIST vs. leiomyosarcoma, stomach
 T-63000, M-88913

Director's note: This case was originally coded (in 1962) as a "leiomyoblastoma". Subsequently, the term "epithelioid" is favored over "...blastoma", and the term "GIST" evolved to mostly supersede previous dxs of leiomyoma and leiomyosarcoma. True smooth muscle tumors, however, DO still exist! This tumor needs a CD34, CD117 and a desmin. (drc)

Case 5 - References:

Epithelioid gastric stromal tumours of the antrum in young females with the Carney triad: a report of three new cases with mutational analysis and comparative genomic hybridization. *Oncol Rep* 2007; Jul;18(1): p9-15. Agaimy A; Pelz AF, et al.
 Gastrointestinal stromal tumors: pathology and prognosis at different sites. *Semin Diagn Pathol* 2006; May;23(2): p70-83. Miettinen M; Lasota J.
 Gastrointestinal stromal tumors: review on morphology, molecular pathology, prognosis, and differential diagnosis. *Arch Pathol Lab Med* 2006; Oct;130(10): p1466-78. Miettinen M; Lasota J.
 Immunohistochemistry for SDHB divides gastrointestinal stromal tumors (GISTs) into 2 distinct types. *Am J Surg Pathol* 2010; May;34(5): p636-44. Gill AJ; Chou A, et al.
 Keratin-positive gastrointestinal stromal tumor of the stomach mimicking gastric carcinoma: diagnosis confirmed by c-kit mutation analysis. *Diagn Mol Pathol* 2008; Dec;17(4): p241-4. Lippai N; Fule T, et al.

Arcadia (ABC Laboratories) - GIST (gastrointestinal stromal tumor)
Baldwin Park (Kaiser Permanente Medical Center) - GIST (4)
Fontana (Kaiser Permanente) - GIST
Hayward (St. Rose Hospital) - GIST
Long Beach (Long Beach Veterans) - Gastrointestinal stromal tumor (GIST)
Alameda (Alameda County Medical Center) - GIST
Oxnard (St. John's Regional Medical Center) - GIST
Santa Barbara (Miramonte Laboratory) - Gastrointestinal stromal tumor
Woodland Hills (Kaiser Permanente) - GIST
Arkansas (Associated Pathologists Laboratory) - Gastrointestinal stromal tumor (GIST)
Colorado (McKee Medical Center) - Gastrointestinal stromal tumor
Florida (Pathology Associates) - GIST
Georgia, Atlanta - Gastrointestinal stromal tumor
Georgia (Oconee Regional Medical Center) - Follicular carcinoma
Illinois (Heartland Regional Medical Center) - GIST, high risk
Illinois (Loyola University of Chicago) - Gastrointestinal stromal tumor
Indiana (Allen Memorial Hospital) - Gastrointestinal stromal tumor
Indiana, Indianapolis - GIST
Maryland (University of Maryland) - Gastrointestinal stromal tumor
Massachusetts (Tafts Medical Center) - Gastrointestinal stromal tumor
Massachusetts (University of Massachusetts Medical Center) - Gastrointestinal stromal tumor, stomach
Michigan, Caledonia - GIST, stomach
Minnesota (Fairview Ridges Hospital) - Gastrointestinal stromal tumor
Missouri (Missouri Delta Medical Center) - GIST
Nebraska (Creighton University Medical Center) - GIST
New York (Buffalo General Hospital) - Spindle cell gastrointestinal stromal tumor
New York (SUNY Stony Brook University Hospital) - GIST
Ohio (Cleveland Clinic) - Gastric GIST
Ohio, Columbus - GIST
Ohio, Union Town - GIST
Ohio (University of Toledo) - Gastrointestinal stromal tumor, spindle
Pennsylvania (Conemaugh Memorial Medical Center) - GIST
Pennsylvania (Lehigh Valley Hospital) - GIST
Pennsylvania (Magee Women's Hospital) - GIST, stomach
Puerto Rico (University of Puerto Rico) - Malignant GIST, spindle cell type
South Carolina (Lexington Medical Center) - Gastrointestinal stromal tumor, spindle cell variant, high risk
Texas, Crystal Beach - Gastrointestinal stromal tumor
Texas, Lubbock - Gastrointestinal stromal tumor
Washington (Seattle VA Medical Center) - Gastrointestinal stromal tumor, spindle cells
West Virginia (Greenbrier Valley Medical Center) - Gastrointestinal stromal tumor
Wisconsin, Madison - Gastrointestinal stromal tumor (GIST)
Wisconsin (Medical Assessment and Consultation, S.C.) - Spindle cell gastrointestinal stromal tumor
Australia (Royal Hobart Hospital) - GIST (high risk of malignant behavior)
Australia (St. Vincent's Hospital) - Stomach, gastrointestinal stromal tumor, malignant, high risk of progressive disease
Canada (Pasqua Hospital) - GIST
Canada (University of Sherbrooke) - Gastrointestinal stromal tumor with high risk of malignancy
Ireland (Connolly Hospital) - Spindle cell GIST
Japan (Aichi Medical University Hospital) - GIST, spindle cell
Japan (Asahi General Hospital) - Gastrointestinal stromal tumor (2)
Japan (Setagaya-Ku) - Gastrointestinal stromal tumor
Japan (Shizuoka Tokushukei Hospital) - GIST
Japan (University of Yamanashi) - Gastrointestinal stromal tumor
Oman (Sultanate of Azaiba) - Gastrointestinal stromal tumor

Case 6 - Diagnosis:

Gastrointestinal stromal tumor (GIST), stomach
T-63000, M-88903

Case 6 - References:

Diagnosis and treatment of gastrointestinal stromal tumors of the stomach: report of 28 cases. *Ann Clin Lab Sci* 2007; Winter;37(1): p15-21. Wu Y; Zhu X; Ding Y.
Keratin-positive gastrointestinal stromal tumor of the stomach mimicking gastric carcinoma: diagnosis confirmed by c kit mutation analysis. *Diagn Mol Pathol* 2008; Dec;17(4): p241-4. Lippai N; Fule T, et al.
High incidence of microscopic gastrointestinal stromal tumors in the stomach. *Hum Pathol* 2006; Dec;37(12): p1527-35. Kawanowa K; Sakuma Y, et al.
Gastrointestinal stromal tumors: pathology and prognosis at different sites. *Semin Diagn Pathol* 2006; May;23(2): p70-83. Miettinen M; Lasota J.
Long-term clinical outcome of patients with gastric gastrointestinal stromal tumors. *Dig Dis Sci* 2010; Oct;55(10): p2893-8. Maor Y; Avidan B, et al.
Gastric stromal tumors in Carney triad are different clinically, pathologically, and behaviorally from sporadic gastric gastrointestinal stromal tumors: findings in 104 cases. *Am J Surg Pathol* 2010; Jan;34(1): p53-64. Zhang L; Smyrk TC; Young WF; Stratakis CA; Carney JA.
Plexiform angiomyxoid myofibroblastic tumour: differential diagnosis of gastrointestinal stromal tumour in the stomach. *J Clin Pathol* 2008; Oct;61(10): p1136-7. Rau TT; Hartmann A, et al.

Case No. 7, Accession No. 12342

September 2011

Arcadia (ABC Laboratories) - Mucinous adenocarcinoma
Baldwin Park (Kaiser Permanente Medical Center) - Adenocarcinoma, mucin-secreting (1); Gastric mucinous adenocarcinoma (2); Gastric adenocarcinoma, mucin producing (1)
Fontana (Kaiser Permanente) - Mucinous adenocarcinoma
Hayward (St. Rose Hospital) - Carcinoma, diffuse type, focally mucinous
Long Beach (Long Beach Veterans) - Mucinous adenocarcinoma
Alameda (Alameda County Medical Center) - Mucinous adenocarcinoma
Oxnard (St. John's Regional Medical Center) - Adenocarcinoma
Santa Barbara (Miramonte Laboratory) - Adenocarcinoma
Woodland Hills (Kaiser Permanente) - Poorly differentiated adenocarcinoma
Arkansas (Associated Pathologists Laboratory) - Mucinous adenocarcinoma of the proximal stomach
Colorado (McKee Medical Center) - Diffuse signet ring carcinoma
Florida (Pathology Associates) - Adenocarcinoma
Georgia, Atlanta - Adenocarcinoma with mucinous features and signet ring cells
Georgia (Oconee Regional Medical Center) - Ganglioneuroma
Illinois (Heartland Regional Medical Center) - Adenocarcinoma, well-differentiated
Illinois (Loyola University of Chicago) - Adenocarcinoma
Indiana (Allen Memorial Hospital) - Tubular adenocarcinoma
Indiana, Indianapolis - Adenocarcinoma with mucinous features
Maryland (University of Maryland) - Gastric adenocarcinoma
Massachusetts (Tafts Medical Center) - Gastric adenocarcinoma
Massachusetts (University of Massachusetts Medical Center) - Adenocarcinoma, stomach
Michigan, Caledonia - Mucinous adenocarcinoma, stomach
Minnesota (Fairview Ridges Hospital) - Adenocarcinoma
Missouri (Missouri Delta Medical Center) - Mucinous adenocarcinoma
Nebraska (Creighton University Medical Center) - Mucinous adenocarcinoma
New York (Buffalo General Hospital) - Intestinal adenocarcinoma of stomach
New York (SUNY Stony Brook University Hospital) - Invasive adenocarcinoma with mucinous and signet ring cell features
Ohio (Cleveland Clinic) - Gastric adenocarcinoma, intestinal type
Ohio, Columbus - Adenocarcinoma
Ohio, Union Town - Poorly differentiated adenocarcinoma

Ohio (University of Toledo) - Gastric adenocarcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Adenocarcinoma
Pennsylvania (Lehigh Valley Hospital) - Mucinous adenocarcinoma
Pennsylvania (Magee Women's Hospital) - Mucinous adenocarcinoma, stomach
Puerto Rico (University of Puerto Rico) - Mucinous adenocarcinoma of stomach
South Carolina (Lexington Medical Center) - Poorly differentiated adenocarcinoma consistent with signet ring cell features
Texas, Crystal Beach - Adenocarcinoma, infiltrating
Texas, Lubbock - Mucinous adenocarcinoma
Washington (Seattle VA Medical Center) - Adenocarcinoma with high grade growth pattern
West Virginia (Greenbrier Valley Medical Center) - Mucous producing adenocarcinoma
Wisconsin, Madison - Gastric adenocarcinoma, intestinal type
Wisconsin (Medical Assessment and Consultation, S.C.) - Mucinous adenocarcinoma of stomach
Australia (Royal Hobart Hospital) - Gastric adenocarcinoma, intestinal type
Australia (St. Vincent's Hospital) - Adenocarcinoma, intestinal type, stomach
Canada (Pasqua Hospital) - Adenocarcinoma
Canada (University of Sherbrooke) - Mixed intestinal type and signet ring cell adenocarcinoma of the stomach
Ireland (Connolly Hospital) - Mucinoid adenocarcinoma
Japan (Aichi Medical University Hospital) - Mucinous carcinoma
Japan (Asahi General Hospital) - Adenocarcinoma (1); Poorly differentiated mucinous adenocarcinoma (1)
Japan (Setagaya-Ku) - Tubular adenocarcinoma, stomach
Japan (Shizuoka Tokushukei Hospital) - Composite carcinoma
Japan (University of Yamanashi) - AFP producing adenocarcinoma
Oman (Sultanate of Azaiba) - Adenocarcinoma

Case 7 - Diagnosis:

Mucinous adenocarcinoma, stomach
 T-63000, M-81403

Case 7 - References:

Clinicopathologic characteristics and prognosis of mucinous gastric carcinoma. *J Surg Oncol* 2010; Jul 1;102(1): p64-7. Zhang M; Zhu GY, et al.
 Submucosal tumor-like mucinous gastric adenocarcinoma showing mucin waterfall. *Gastrointest Endosc* 2009; Mar;69(3 Pt 1): p564-5. Kim KY; Kim GH, et al.
 Mucin-producing gastric cancer: clinicopathological difference between signet ring cell carcinoma and mucinous carcinoma. *Hepatogastroenterology* 2009; Jul-Aug;56(93): p1227-31. Fang WL; Wu CW, et al.
 Pathobiological behavior and molecular mechanism of signet ring cell carcinoma and mucinous adenocarcinoma of the stomach: a comparative study. *World J Gastroenterol* 2004; Mar 1;10(5): p750-4. Yang XF; Yang L, et al.
 Mucin phenotype and background mucosa of intramucosal differentiated-type adenocarcinoma of the stomach. *Oncology* 2004;66(5): p379-87. Sasaki A; Kitadai Y; Ito M, et al.
 Clinicopathologic study of early-stage mucinous gastric carcinoma. *Cancer* 2001; Feb 15;91(4): p698-703. Adachi Y; Yasuda K, et al.

Case No. 8, Accession No. 24822

September 2011

Arcadia (ABC Laboratories) - Malignant carcinoid
Baldwin Park (Kaiser Permanente Medical Center) - Neuroendocrine tumor, poorly differentiated (1); Poorly differentiated neuroendocrine tumor (3)
Fontana (Kaiser Permanente) - PNET
Hayward (St. Rose Hospital) - Hindgut carcinoid, high grade
Long Beach (Long Beach Veterans) - Neuroendocrine carcinoma
Alameda (Alameda County Medical Center) - Neuroendocrine carcinoma
Oxnard (St. John's Regional Medical Center) - Neuroendocrine carcinoma
Santa Barbara (Miramonte Laboratory) - Carcinoid
Woodland Hills (Kaiser Permanente) - Malignant melanoma

Arkansas (Associated Pathologists Laboratory) - Atypical malignant carcinoid
Colorado (McKee Medical Center) - Large cell neuroendocrine carcinoma
Florida (Pathology Associates) - Neuroendocrine neoplasm
Georgia, Atlanta - Neuroendocrine carcinoma
Georgia (Oconee Regional Medical Center) - Metastatic neuroblastoma
Illinois (Heartland Regional Medical Center) - Neuroendocrine carcinoma, high grade
Illinois (Loyola University of Chicago) - Large cell neuroendocrine carcinoma
Indiana (Allen Memorial Hospital) - Large cell neuroendocrine carcinoma
Indiana, Indianapolis - Rectal NET
Maryland (University of Maryland) - Atypical carcinoid
Massachusetts (Tafts Medical Center) - Neuroendocrine carcinoma
Massachusetts (University of Massachusetts Medical Center) - Poorly differentiated neuroendocrine tumor, rectum
Michigan, Caledonia - Paraganglioma, large intestine
Minnesota (Fairview Ridges Hospital) - Large cell neuroendocrine carcinoma vs. melanoma
Missouri (Missouri Delta Medical Center) - Carcinoid neuroendocrine cancer
Nebraska (Creighton University Medical Center) - High grade neuroendocrine carcinoma
New York (Buffalo General Hospital) - High grade neuroendocrine carcinoma, large cell type
New York (SUNY Stony Brook University Hospital) - Neuroendocrine carcinoma, rule out melanoma
Ohio (Cleveland Clinic) - Neuroendocrine carcinoma
Ohio, Columbus - Neuroendocrine carcinoma
Ohio, Union Town - Neuroendocrine carcinoma
Ohio (University of Toledo) - Malignant neuroendocrine tumor
Pennsylvania (Conemaugh Memorial Medical Center) - High grade neuroendocrine carcinoma
Pennsylvania (Lehigh Valley Hospital) - Malignant paraganglioma
Pennsylvania (Magee Women's Hospital) - Neuroendocrine carcinoma, rectum
Puerto Rico (University of Puerto Rico) - Large cell neuroendocrine carcinoma, high grade
South Carolina (Lexington Medical Center) - High grade rectal neuroendocrine tumor, atypical carcinoid tumor
Texas, Crystal Beach - Neuroendocrine carcinoma, carcinoid
Texas, Lubbock - Peripheral neuroendocrine tumor (PNET)
Washington (Seattle VA Medical Center) - Endocrine carcinoma with high grade growth pattern
West Virginia (Greenbrier Valley Medical Center) - Neuroendocrine carcinoma
Wisconsin, Madison - Neuroendocrine carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - High grade carcinoma with neuroendocrine differentiation
Australia (Royal Hobart Hospital) - Poorly differentiated neuroendocrine carcinoma
Australia (St. Vincent's Hospital) - Rectum, large cell neuroendocrine carcinoma
Canada (Pasqua Hospital) - Melanoma
Canada (University of Sherbrooke) - Neuroendocrine carcinoma or high grade neuroendocrine tumor
Ireland (Connolly Hospital) - Grade 3, poorly differentiated endocrine carcinoma
Japan (Aichi Medical University Hospital) - Neuroendocrine carcinoma
Japan (Asahi General Hospital) - Neuroendocrine carcinoma (2)
Japan (Setagaya-Ku) - Neuroendocrine carcinoma
Japan (Shizuoka Tokushukai Hospital) - Carcinoid tumor
Japan (University of Yamanashi) - Neuroendocrine carcinoma
Oman (Sultanate of Azaiba) - Neuroendocrine carcinoma/small cell carcinoma

Case 8 - Diagnosis:

Carcinoid tumor, rectum
 T-68000, M-82401

Director's note: Neuroendocrine markers were positive, but CK was negative. We reserve the term “neuroendocrine carcinoma” for tumors that are also CK positive. Also, all carcinoid tumors (and melanomas) are malignant. There's no need to dx “malignant carcinoid” or “malignant melanoma”. The malignancy is understood. (drc)

Case 8 - References:

Carcinoid tumors of the gastrointestinal tract: trends in incidence in England since 1971. *Am J Gastroenterol* 2010; Dec;105(12): p2563-9. Ellis L; Shale MJ; Coleman MP.
Rectal carcinoid tumor mimicking colonic adenomatous lesion.. *Gastrointest Endosc* 2005; Dec;62(6): p976-7; discussion 977. Nakase H; Matsuura M; Uza N; Ueno S; Nishio A; Chiba T.
Tumor size is irrelevant in predicting malignant potential of carcinoid tumors of the rectum. *Tech Coloproctol* 2001; Aug;5(2): p73-7. Heah SM; Eu KW; Ooi BS; Ho YH; Seow-Choen F.
Familial rectal carcinoid: report of two first-degree relatives with rectal carcinoid and review of the literature. *Tech Coloproctol* 2006; Jul;10(2): p143-6. Katdare MV; Fichera A; Heimann TM.
Current status of gastrointestinal carcinoids. *Gastroenterology* 2005; May;128(6): p1717-51. Modlin IM; Kidd M; Latich I; Zikusoka MN; Shapiro MD.

Case No. 9, Accession No. 26295

September 2011

Arcadia (ABC Laboratories) - Cholangiocarcinoma
Baldwin Park (Kaiser Permanente Medical Center) - Cholangiocarcinoma (4)
Fontana (Kaiser Permanente) - Bile duct carcinoma
Hayward (St. Rose Hospital) - Cholangiocarcinoma
Long Beach (Long Beach Veterans) - Cholangiocarcinoma
Alameda (Alameda County Medical Center) - Cholangiocarcinoma
Oxnard (St. John's Regional Medical Center) - Cholangiocarcinoma
Santa Barbara (Miramonte Laboratory) - Bile duct adenomas
Woodland Hills (Kaiser Permanente) - Epithelioid hemangioendothelioma
Arkansas (Associated Pathologists Laboratory) - Intrahepatic cholangiocarcinoma
Colorado (McKee Medical Center) - Epithelioid hemangioendothelioma
Florida (Pathology Associates) - Cholangiocarcinoma
Georgia, Atlanta - Cholangiocarcinoma
Georgia (Oconee Regional Medical Center) - Adrenal cortical carcinoma
Illinois (Heartland Regional Medical Center) - Cholangiocarcinoma, well-differentiated, tubular
Illinois (Loyola University of Chicago) - Cholangiocarcinoma
Indiana (Allen Memorial Hospital) - Cholangiocarcinoma
Indiana, Indianapolis - HCC
Maryland (University of Maryland) - Cholangiocarcinoma
Massachusetts (Tafts Medical Center) - Florid ductal proliferation arising from existing cirrhosis
Massachusetts (University of Massachusetts Medical Center) - Cholangiocarcinoma
Michigan, Caledonia - Cholangiocarcinoma, well-differentiated
Minnesota (Fairview Ridges Hospital) - Cholangiocarcinoma
Missouri (Missouri Delta Medical Center) - Cholangiocarcinoma
Nebraska (Creighton University Medical Center) - Cholangiocarcinoma
New York (Buffalo General Hospital) - Intrahepatic cholangiocarcinoma
New York (SUNY Stony Brook University Hospital) - Cholangiocarcinoma perhaps cholangiocellular type
Ohio (Cleveland Clinic) - Massive bile duct proliferation
Ohio, Columbus - Cholangiocarcinoma
Ohio, Union Town - Cholangiocarcinoma
Ohio (University of Toledo) - Cholangiocarcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Cholangiocarcinoma
Pennsylvania (Lehigh Valley Hospital) - Epithelioid hemangioendothelioma
Pennsylvania (Magee Women's Hospital) - Cholangiocarcinoma, liver
Puerto Rico (University of Puerto Rico) - Intrahepatic cholangiocarcinoma
South Carolina (Lexington Medical Center) - Bile duct proliferation secondary to lepatic injury in background of cirrhosis
Texas, Crystal Beach - Cholangiocarcinoma
Texas, Lubbock - Cholangiocarcinoma
Washington (Seattle VA Medical Center) - Cirrhostic liver consistent with cholangiocarcinoma
West Virginia (Greenbrier Valley Medical Center) - Cholangiocarcinoma

Wisconsin , Madison - Liver cirrhosis liver cell necrosis and reactive bile duct proliferation
Wisconsin (Medical Assessment and Consultation, S.C.) - Cholangiocarcinoma in liver
Australia (Royal Hobart Hospital) - Micronodular cirrhosis with ischemic damage and regenerative bile duct hyperplasia
Australia (St. Vincent's Hospital) - Liver, combined hepatocellular carcinoma and cholangiocarcinoma
Canada (Pasqua Hospital) - Cholangiocarcinoma
Canada (University of Sherbrooke) - Cholangiocarcinoma
Ireland (Connolly Hospital) - Bile duct proliferation needs immunos
Japan (Aichi Medical University Hospital) - Bile ductal proliferation
Japan (Asashi General Hospital) - Combined hepatocellular-cholangiocarcinoma with stem cell features, cholangiocellular type (1); Cholangiocarcinoma (2)
Japan (Setagaya-Ku) - Cholangiocarcinoma
Japan (Shizuoka Tokushukei Hospital) - Cholangiocarcinoma
Japan (University of Yamanashi) - Intrahepatic cholangiocarcinoma, with stem-cell features (cholangiolocellular type)
Oman (Sultanate of Azaiba) - Cholangiocarcinoma

Case 9 - Diagnosis:

Cholangiocarcinoma, liver
T-56000, M-81603

Case 9 - References:

Intrahepatic cholangiocarcinoma and combined hepatocellular-cholangiocarcinoma: a Western experience. *Ann Surg Oncol* 2008; Jul;15(7): p1880-90. Portolani N; Baiocchi GL, et al.
Clinicopathologic characteristics of intrahepatic cholangiocarcinoma in patients with positive serum a-fetoprotein. *World J Gastroenterol* 2008; Apr 14;14(14): p2251-4. Zhou YM; Yang JM, et al.
p62+ Hyaline inclusions in intrahepatic cholangiocarcinoma associated with viral hepatitis or alcoholic liver disease. *Am J Clin Pathol* 2010; Sep;134(3): p457-65. Aishima S; Fujita N, et al.
Aberrant expression of alpha-fetoprotein in intrahepatic cholangiocarcinoma: an exceptional occurrence. *Int J Surg Pathol* 2008; Apr;16(2): p194-8. Vij K; Wang HL.
Complex liver resection for a large intrahepatic cholangiocarcinoma in a Jehovah's witness: a strategy to avoid transfusion.. *J Surg Oncol* 2007; Sep 1;96(3): p249-53. Barakat O; Cooper JR, et al.

Case No. 10, Accession No. 20796

September 2011

Arcadia (ABC Laboratories) - Fibrolamellar hepatocellular carcinoma
Baldwin Park (Kaiser Permanente Medical Center) - HCC (hepatocellular carcinoma) (4)
Fontana (Kaiser Permanente) - Hepatocellular carcinoma
Hayward (St. Rose Hospital) - Combined hepatocellular carcinoma/cholangiocarcinoma
Long Beach (Long Beach Veterans) - Hepatocellular carcinoma
Alameda (Alameda County Medical Center) - Hepatocellular carcinoma
Oxnard (St. John's Regional Medical Center) - Hepatocellular carcinoma
Santa Barbara (Miramonte Laboratory) - Hepatocellular carcinoma
Woodland Hills (Kaiser Permanente) - Hepatocellular carcinoma
Arkansas (Associated Pathologists Laboratory) - Hepatocellular carcinoma
Colorado (McKee Medical Center) - Hepatocellular carcinoma
Florida (Pathology Associates) - Hepatocellular carcinoma, confirm with Hepar, CD31 stains or AFP level
Georgia, Atlanta - Hepatocellular carcinoma
Georgia (Oconee Regional Medical Center) - Pheochromocytoma
Illinois (Heartland Regional Medical Center) - Hepatocellular carcinoma
Illinois (Loyola University of Chicago) - Hepatocellular carcinoma
Indiana (Allen Memorial Hospital) - Hepatocellular carcinoma
Indiana, Indianapolis - Bile duct adenoma
Maryland (University of Maryland) - Hepatocellular carcinoma
Massachusetts (Tafts Medical Center) - Combined hepatocellular cholangiocarcinoma
Massachusetts (University of Massachusetts Medical Center) - Hepatocellular carcinoma, liver

Michigan, Caledonia - Hepatocellular carcinoma, moderately differentiated
Minnesota (Fairview Ridges Hospital) - Cholangiocarcinoma
Missouri (Missouri Delta Medical Center) - Hepatoma
Nebraska (Creighton University Medical Center) - Hepatocellular carcinoma
New York (Buffalo General Hospital) - Hepatocellular carcinoma
New York (SUNY Stony Brook University Hospital) - Hepatocellular carcinoma
Ohio (Cleveland Clinic) - Hepatocellular carcinoma
Ohio, Columbus - Hepatocellular carcinoma
Ohio, Union Town - Hepatocellular carcinoma
Ohio (University of Toledo) - Hepatocellular carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - HCC
Pennsylvania (Lehigh Valley Hospital) - Fibrolamellar hepatocellular carcinoma
Pennsylvania (Magee Women's Hospital) - Hepatocellular carcinoma, liver
Puerto Rico (University of Puerto Rico) - Hepatocellular cell carcinoma
South Carolina (Lexington Medical Center) - Hepatocellular carcinoma
Texas, Crystal Beach - Hepatocellular carcinoma and adenocarcinoma, probably metastatic
Texas, Lubbock - Hepatocellular carcinoma
Washington (Seattle VA Medical Center) - Hepatocellular carcinoma consistent with fibrolamellar growth pattern
West Virginia (Greenbrier Valley Medical Center) - Hepatocellular carcinoma
Wisconsin, Madison - Hepatocellular carcinoma vs. cholangiocarcinoma (focal squamous differentiation)
Wisconsin (Medical Assessment and Consultation, S.C.) - Fibrolamellar hepatocellular carcinoma
Australia (Royal Hobart Hospital) - Combined hepatocellular carcinoma and cholangiocarcinoma
Australia (St. Vincent's Hospital) - Liver, separate hepatocellular carcinoma and cholangiocarcinoma
Canada (Pasqua Hospital) - Combined hepatocellular and cholangiocarcinoma
Canada (University of Sherbrooke) - Hepatic metastasis of biliary adenocarcinoma
Ireland (Connolly Hospital) - Hepatocellular carcinoma
Japan (Aichi Medical University Hospital) - Fibrolamellar carcinoma
Japan (Asashi General Hospital) - Hepatocellular carcinoma (1); Cholangiocarcinoma (1)
Japan (Setagaya-Ku) - Hepatocellular carcinoma
Japan (Shizuoka Tokushukei Hospital) - Hepatocellular carcinoma
Japan (University of Yamanashi) - Combined hepatocellular cholangiocarcinoma
Oman (Sultanate of Azaiba) - Hepatocellular carcinoma

Case 10 - Diagnosis:

Hepatocellular carcinoma, liver
 T-56000, M-81703

Case 10 - References:

Hepatocellular carcinoma in situ: does the entity exist? *Arch Pathol Lab Med* 2005; Dec;129(12): p1523-4. Gao ZH.
 Reliability and reproducibility of the Edmondson grading of hepatocellular carcinoma using paired core biopsy and surgical resection specimens. *Arch Pathol Lab Med* 2010; Dec;134(12): p1818-22. Pirisi M; Leutner M, et al.
 Prospective study of hepatocellular carcinoma in nonalcoholic steatohepatitis in comparison with hepatocellular carcinoma caused by chronic hepatitis C. *J Gastroenterol* 2010; Sep;45(9): p960-7. Tokushige K; Hashimoto E, et al..
 Recurrent hepatocellular carcinoma after living donor liver transplantation: a preventable problem or an acceptable risk? *Ann Surg Oncol* 2010; Sep;17(9): p2262-3. Sonnenday CJ.
 Diabetes mellitus, obesity, and hepatocellular carcinoma: the jury is still out. *Am J Gastroenterol* 2010; Sep;105(9): p2116-7. Shebl FM; El-Kamary SS.
 Diabetes and hepatocellular carcinoma: associations, biologic plausibility, and clinical implications. *Gastroenterology* 2005; Sep;129(3): p1132-4. Dellon ES; Shaheen NJ.
 Hepatocellular carcinoma surgery--review of the past and prospects for the 21st century. *J Surg Oncol* 2005; Aug 1;91(2): p95-6. Tang ZY.