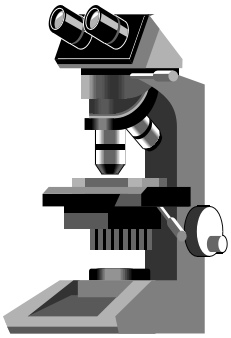
CALIFORNIA
TUMOR TISSUE REGISTRY

TUMORS OF THE GI & HEPATOBILIARY TRACTS

Minutes – Subscription B

April 2001



SUGGESTED READING (General Topics from Recent Literature):

Deletions of Chromosome 4 Occur Early During the Pathogenesis of Colorectal Carcinoma. Shivapurkar N, Maitra A, Milchgrub S, et al. *Hum Pathol* 2001; 169-177.

Endometriosis of the Intestinal Tract. A Study of 44 Cases of a Disease That May Cause Diverse Challenges in Clinical and Pathologic Evaluation. Yantiss RK, Clement PB, et al. *Am J of Surg Pathol* 2001; 25(4):445-454.

Hyperplastic Polyps of the Stomach. Associations with Histologic Patterns of Gastritis and Gastric Atrophy. Abraham SC, Singh VK, et al. *Am J of Surg Pathol* 2001; 25(4):500-507.

Atypical and Malignant Glomus Tumors. Analysis of 52 Cases with a Proposal for the Reclassification of Glomus Tumors. Folpe AL, Fanburg-Smith JC, Miettinen M, et al. *Am J of Surg Pathol* 2001; 25(1):1-12.

Expanding the Spectrum of Malignant Change in Schwannomas. Epithelioid Malignant Change, Epithelioid Malignant Peripheral Nerve Sheath Tumor, and Epithelioid Angiosarcoma. A Study of 17 Cases. *Am J Surg Pathol* 2001; 25(1):13-25.

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FILE DIAGNOSES

CTTR Subscription B April 2001

Case 1:

Hamartomatous Polyp (Peutz-Jegher Type), Colon
T-67000, M-75630

Case 2:

Leiomyosarcoma, Colon, Stomach, and Small Intestine
T-64000, M-88903

Case 3:

Serous Microcystic Adenoma ("Serous Cystadenoma"), Pancreas
T-59000, M-81400

Case 4:

Pancreatic Endocrine Tumor with Glucagon Production ("Glucagonoma")
T-59000, M-81520

Case 5:

Melanoma, Stomach
T-63000, M-87203

Case 6:

Malignant Pancreatic Endocrine Tumor ("Neuroendocrine Carcinoma"), Pancreas
T-59000, M-80103

Case 7:

Hepatoblastoma, Liver
T-56000, M-89703

Case 8:

Angiosarcoma, Liver
T-56000, M-91203

Case 9:

Poorly-Differentiated Adenocarcinoma, Probably Hepatocellular
T-56000, M-81703

Case 10:

Cholangiocarcinoma, Liver
T-56000, M-81603

Case No. 1, Accession No. 26039

Glendale (Glendale Pathology Associates) - Peutz-Jegher polyp
Modesto - Peutz-Jegher polyp
Mountain View (El Camino Pathology Group) - Hamartomatous polyp consistent with Peutz-Jegher's syndrome
Orange (UCI Medical Center Residents) - Hamartomatous polyp
Sacramento (UCD Medical Center) - Peutz-Jegher polyp
Arkansas (Little Rock) - Peutz-Jegher polyp, colon
Colorado (Unipath) - Cowden's disease
Florida (Munroe Regional Medical Center) - Juvenile polyp – Peutz-Jegher's syndrome
Florida (Winter Haven Hospital) - Hamartomatous polyp (Peutz-Jegher) (2)
Illinois (Chicago) - Hamartomatous polyp
Illinois (Marion Memorial Hospital) - Peutz-Jegher polyp (hamartomatous polyp)
Indiana (Fort Wayne) - Peutz-Jegher's hamartomatous polyps, small bowel
Kansas (University of Kansas Medical Center) - Peutz-Jegher's syndrome
Maryland (National Naval Medical Center) - Hamartomatous polyp
Massachusetts (Providence Pathology Associates) - Hamartomatous polyp, colon (Peutz-Jegher's syndrome)
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Peutz-Jegher polyp
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Hamartoma (1): Hamartoma of Peutz-Jegher's type (1)
Michigan (Spectrum Health) - Peutz-Jegher polyp
Minnesota (Golden Gopher Study) - Hamartomatous polyp
Missouri (Ferguson Labs) - Hamartomatous polyp associated with Peutz-Jegher's
Nebraska (Good Samaritan Hospital) - Peutz-Jegher polyp (hamartomatous polyp)
New York (East Meadow) - Peutz-Jegher polyp, colon
New York (Impath) - Hamartomatous polyp of Peutz-Jeghers
Pennsylvania (Allegheny General Hospital Residents) - Peutz-Jegher polyp
Texas (Houston) - Peutz-Jegher polyp
Texas (Lubbock) - Peutz-Jeghers syndrome
Texas (ProPath Associates) - Hamartomatous polyp (1); Peutz-Jegher polyp (1)
Texas (San Antonio) - Peutz-Jegher's
Texas (Shannon Clinic Pathology) - Peutz-Jegher's (hamartomatous) polyp
Washington (Madigan Army Medical Center) - Peutz-Jegher polyp
Washington, DC - Hamartomatous polyp
Canada (CUSE Site Fleurimont) - Peutz-Jegher's syndrome
Canada (Foothills Hospital, Calgary) - Hamartomatous (Peutz-Jegher) polyp
China (Sir Run Run Shaw Hospital) - Peutz-Jegher polyp
Japan (Kawasaki Medical School Hospital) - Peutz-Jegher polyp (4)
Japan (Minami-Ku, Sapporo) - Peutz-Jegher polyp
Puerto Rico (Universidad de Puerto Rico) - Peutz-Jegher's syndrome
Singapore - Hamartomatous (Peutz-Jegher) polyp
Singapore (Tan Tock Seng Hospital) - Peutz-Jegher polyp
Spain (POVISA, Vigo) - Peutz-Jegher polyps (hamartomatous polyps)

Case 1 - Diagnosis:

Hamartomatous Polyp (Peutz-Jegher Type), Colon
T-67000, M-75630

Case 1 - References:

Westerman AM, Wilson JH, et al. Peutz-Jeghers Syndrome. Risks of a Hereditary Condition. *Scand J Gastroenterol Suppl* 1999; 230:64-70.
Petersen VC, Sheehan AL, Bryan RL, et al. Misplacement of Dysplastic Epithelium in Peutz-Jeghers Polyps. The Ultimate Diagnostic Pitfall? *Am J Surg Pathol* 2000; 24(1):34-39.

Patterson MJ and Kernen JA. Epithelioid Leiomyosarcoma Originating in a Hamartomatous Polyp from a Patient with Peutz-Jeghers Syndrome. *Gastroenterology* 1985; 88(4):1060-1064.
Narita T, Eto T and Ito T. Peutz-Jeghers Syndrome with Adenomas and Adenocarcinomas in Colonic Polyps. *Am J Surg Pathol* 1987; 11(1):76-81.

Case No. 2, Accession No. 28867 April 2001

Glendale (Glendale Pathology Associates) - Leiomyosarcoma, high grade
Modesto - Leiomyosarcoma
Mountain View (El Camino Pathology Group) - Leiomyosarcoma
Orange (UCI Medical Center Residents) - Leiomyosarcoma
Sacramento (UCD Medical Center) - Leiomyosarcoma
Arkansas (Little Rock) - Leiomyosarcoma, colon
Colorado (Unipath) - GIST
Florida (Munroe Regional Medical Center) - Leiomyosarcoma
Florida (Winter Haven Hospital) - Leiomyosarcoma (2)
Illinois (Chicago) - Leiomyosarcoma
Illinois (Marion Memorial Hospital) - Leiomyosarcoma (malignant gastrointestinal stromal tumor)
Indiana (Fort Wayne) - Leiomyosarcoma, cecum
Kansas (University of Kansas Medical Center) - Leiomyosarcoma
Maryland (National Naval Medical Center) - Leiomyosarcoma
Massachusetts (Providence Pathology Associates) - Leiomyosarcoma, gastrointestinal
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Leiomyosarcoma
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Metastatic leiomyosarcoma (1); Leiomyosarcoma (1)
Michigan (Spectrum Health) - Leiomyosarcoma
Minnesota (Golden Gopher Study) - Leiomyosarcoma
Missouri (Ferguson Labs) - Leiomyosarcoma
Nebraska (Good Samaritan Hospital) - Malignant gastrointestinal stromal tumor (leiomyosarcoma)
New York (East Meadow) - Leiomyosarcoma, GI tract
New York (Impath) - Pleomorphic leiomyosarcoma
Pennsylvania (Allegheny General Hospital Residents) - Leiomyosarcoma
Texas (Houston) - Leiomyosarcoma
Texas (Lubbock) - Leiomyosarcoma
Texas (ProPath Associates) - Gastrointestinal stromal tumor – leiomyosarcoma (2)
Texas (San Antonio) - Leiomyosarcoma
Texas (Shannon Clinic Pathology) - Leiomyosarcoma
Washington (Madigan Army Medical Center) - Leiomyosarcoma
Washington, DC - Leiomyosarcoma
Canada (CUSE Site Fleurimont) - GIST, malignant
Canada (Foothills Hospital, Calgary) - Leiomyosarcoma (malignant GIST)
China (Sir Run Run Shaw Hospital) - Leiomyosarcoma
Japan (Kawasaki Medical School Hospital) - GIST, malignant (4)
Japan (Minami-Ku, Sapporo) - Pleomorphic leiomyosarcoma
Puerto Rico (Universidad de Puerto Rico) - Pleomorphic leiomyosarcoma
Singapore - Leiomyosarcoma
Singapore (Tan Tock Seng Hospital) - Leiomyosarcoma
Spain (POVISA, Vigo) - Leiomyosarcoma

Case 2 - Diagnosis:

Leiomyosarcoma, Colon, Stomach, and Small Intestine

Directors Note: The negative CD34 and CD117, combined with positive stains for desmin and actin, identify this as a true smooth muscle tumor (instead of a malignant GIST). drc

T-64000, M-88903

Case 2 - References:

North JH, Pack MS et al. Malignant Tumors of the Small Intestine. A Review of 144 Cases. *Am Surg* 2000; 66(1):46-51.

Wang L, Vargas H and French SW. Cellular-Origin of Gastrointestinal Stromal Tumor. A Study of 27 Cases. *Arch Pathol & Lab Med* 2000; 1471-1475.

Cunningham JD, Aleali R, Aleali M, Brower ST, et al. Malignant Small Bowel Neoplasms. Histopathologic Determinants of Recurrence and Survival. *Ann Surg* 1997; 225(3):300-306.

Knapp RH, Wick MR, et al. Leiomyoblastomas and Their Relationship to Other Smooth-Muscle Tumors of the Gastrointestinal Tract. An Electron-Microscopic Study. *Am J Surg Pathol* 1984; 8(6):449-461.

Miettinen M, Sarlomo-Rikala M, et al. Gastrointestinal Stromal Tumors and Leiomyosarcomas in the Colon. A Clinicopathologic, Immunohistochemical, and Molecular Genetic Study of 44 Cases. *Am J Surg Pathol* 2000; 24(10):1339-1352.

Case No. 3, Accession No. 28897 April 2001

Glendale (Glendale Pathology Associates) - Serous cystadenoma
Modesto - Serous microcystic adenoma
Mountain View (El Camino Pathology Group) - Microcystic adenoma
Orange (UCI Medical Center Residents) - Microcystic adenoma
Sacramento (UCD Medical Center) - Serous microcystic adenoma
Arkansas (Little Rock) - Microcystic cystadenoma, pancreas
Colorado (Unipath) - Lymphangioma
Florida (Munroe Regional Medical Center) - Lymphangioma
Florida (Winter Haven Hospital) - Papillary cystadenoma, head of pancreas (1); Cystadenoma (1)
Illinois (Chicago) - Microcystic adenoma (serous cystadenoma)
Illinois (Marion Memorial Hospital) - Serous microcystic adenoma
Indiana (Fort Wayne) - Serous microcystic adenoma, pancreas
Kansas (University of Kansas Medical Center) - Microcystic serous adenoma
Maryland (National Naval Medical Center) - Serous microcystic adenoma
Massachusetts (Providence Pathology Associates) - Microcystic cystadenoma, pancreas
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Serous microcystic adenoma
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Serous cystadenoma (1); Serous neoplasm, microcystic (1)
Michigan (Spectrum Health) - Serous microcystic adenoma
Minnesota (Golden Gopher Study) - Serous cystadenoma
Missouri (Ferguson Labs) - Ductal adenoma
Nebraska (Good Samaritan Hospital) - Microcystic cystadenoma
New York (East Meadow) - Serous microcystic adenoma, pancreas
New York (Impath) - Serous microcystic adenoma of pancreas
Pennsylvania (Allegheny General Hospital Residents) - Serous microcystic adenoma
Texas (Houston) - Serous microcystic tumor
Texas (Lubbock) - Cystadenoma
Texas (ProPath Associates) - Serous cystadenoma of pancreas (1); Microcystic cystadenoma (1)
Texas (San Antonio) - Serous microcystic adenoma
Texas (Shannon Clinic Pathology) - Serous microcystic adenoma
Washington (Madigan Army Medical Center) - Serous microcystic adenoma
Washington, DC - Cavernous lymphangioma
Canada (CUSE Site Fleurimont) - Microcystic cystadenoma
Canada (Foothills Hospital, Calgary) - Serous microcystic adenoma
China (Sir Run Run Shaw Hospital) - Cystadenoma of pancreas vs. angioma
Japan (Kawasaki Medical School Hospital) - Serous cystadenoma (microcystic adenoma) (4)
Japan (Minami-Ku, Sapporo) - Serous microcystic adenoma
Puerto Rico (Universidad de Puerto Rico) - Microcystic cystadenoma
Singapore - Microcystic serous adenoma

Singapore (Tan Tock Seng Hospital) - Serous microcystic adenoma
Spain (POVISA, Vigo) - Microcystic cystadenoma

Case 3 - Diagnosis:

Serous Microcystic Adenoma ("Serous Cystadenoma"), Pancreas
T-59000, M-81400

Case 3 - References:

Pyke CM, van Heerden JA, Colby TV, et al. The Spectrum of Serous Cystadenoma of the Pancreas. Clinical, Pathologic and Surgical Aspects. *Ann Surg* 1992; 215(2):132-139.

Warshaw AL, Compton CC, Lewandrowsky K, Cardenosa G, Mueller PR. Cystic Tumors of the Pancreas. New Clinical, Radiologic and Pathologic Observations in 67 Patients. *Ann Surg* 1990; 212(4):432-443.

Young NA, Villani MA, Khoury P, et al. Differential Diagnosis of Cystic Neoplasms of the Pancreas by Fine-Needle Aspiration. *Arch Pathol Lab Med* 1991; 115(6):571-577.

Friedman AC, Lichtenstein JE, et al. Cystic Neoplasms of the Pancreas. Radiological-Pathological Correlation. *Radiology* 1983; 149(1):45-50.

Case No. 4, Accession No. 29021 April 2001

Glendale (Glendale Pathology Associates) - Islet cell tumor
Modesto - Glucagonoma
Mountain View (El Camino Pathology Group) - Islet cell tumor
Orange (UCI Medical Center Residents) - Glucagonoma
Sacramento (UCD Medical Center) - Gastrinoma - glucagonoma
Arkansas (Little Rock) - Pancreatic endocrine cell tumor, alpha cell type (glucagonoma) unassociated with glucagonoma syndrome
Colorado (Unipath) - Islet cell tumor
Florida (Munroe Regional Medical Center) - Endocrine carcinoma
Florida (Winter Haven Hospital) - Pancreatic neuroendocrine tumor (2)
Illinois (Chicago) - Glucagonoma
Illinois (Marion Memorial Hospital) - Islet cell tumor (glucagonoma) of low malignant potential
Indiana (Fort Wayne) - Carcinoid neoplasm, duodenum
Kansas (University of Kansas Medical Center) - Islet cell tumor
Maryland (National Naval Medical Center) - Islet cell tumor
Massachusetts (Providence Pathology Associates) - Gastrinoma, pancreas
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Islet cell tumor (glucagonoma)
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Pancreatic endocrine neoplasm of uncertain malignant potential (2)
Michigan (Spectrum Health) - Well-differentiated pancreatic endocrine tumor (glucagonoma)
Minnesota (Golden Gopher Study) - Glucagonoma
Missouri (Ferguson Labs) - Acinar carcinoma
Nebraska (Good Samaritan Hospital) - Glucagonoma
New York (East Meadow) - Endocrine neoplasm (glucagonoma), pancreas
New York (Impath) - Well-differentiated pancreatic endocrine neoplasm with glucagon immunoreactivity, uncertain clinical behavior
Pennsylvania (Allegheny General Hospital Residents) - Malignant glucagonoma
Texas (Houston) - Pancreatic endocrine tumor
Texas (Lubbock) - Islet cell tumor
Texas (ProPath Associates) - Neuroendocrine tumor (1); Neuroendocrine tumor (probably alpha all type) – glucagonoma (1)
Texas (San Antonio) - Neuroendocrine carcinoma, well-differentiated
Texas (Shannon Clinic Pathology) - Pancreatic endocrine neoplasm (glucagonoma)
Washington (Madigan Army Medical Center) - Alpha cell tumor (glucagonoma)
Washington, DC - Islet cell tumor
Canada (CUSE Site Fleurimont) - Glucagonoma
Canada (Foothills Hospital, Calgary) - Islet cell tumor

China (Sir Run Run Shaw Hospital) - Islet cell tumor of pancreas (carcinoid)
Japan (Kawasaki Medical School Hospital) - Carcinoid tumor (3); Atypical carcinoid tumor (1)
Japan (Minami-Ku, Sapporo) - Alpha cell tumor (glucagonoma)
Puerto Rico (Universidad de Puerto Rico) - Neurendocrine tumor, mixed gastrinoma - glucagonoma
Singapore - Pancreatic endocrine tumor
Singapore (Tan Tock Seng Hospital) - Pancreatic endocrine neoplasm (glucagonoma)
Spain (POVISA, Vigo) - Islet cell tumor (glucagonoma)

Case 4 - Diagnosis:

Pancreatic Endocrine Tumor with Glucagon Production ("Glucagonoma")
T-59000, M-81520

Case 4 - References:

Venkatesh S, Ordonez NG, et al. Islet Cell Carcinoma of the Pancreas. A Study of 98 Patients. *Cancer* 1990; 65(2):354-357.
Muramatsu T, Kijima H, et al. Acinar-Islet Cell Tumor of the Pancreas. Report of a Malignant Pancretic Composite Tumor. *J Clin Gastroenterol* 2000; 31(2):175-178.
Anderson MA, Carpenter S, Thompson NW, et al. Endoscopic Ultrasound is Highly Accurate and Directs Management in Patients with Neuroendocrine Tumors of the Pancreas. *Am J Gastroenterol* 2000; 95(9):2271-2277.
Brown K, Kristopaitis T, Yong S, et al. Cystic Glucagonoma. A Rare Variant of an Uncommon Neuroendocrine Pancreas Tumor. *J Gastrointest Surg* 1998; 2(6):533-536.
Pour PM, Permert J, Mogaki M, et al. Endocrine Aspects of Exocrine Cancer of the Pancreas. Their Patterns and Suggested Biologic Significance. *Am J Clin Pathol* 1993; 100(3):223-230.

Case No. 5, Accession No. 26474 April 2001

Glendale (Glendale Pathology Associates) - Metastatic melanoma
Modesto - Metastatic melanoma
Mountain View (El Camino Pathology Group) - Metastatic melanoma
Orange (UCI Medical Center Residents) - Melanoma
Sacramento (UCD Medical Center) - Melanoma
Arkansas (Little Rock) - Metastatic malignant melanoma
Colorado (Unipath) - Melanoma
Florida (Munroe Regional Medical Center) - Melanoma
Florida (Winter Haven Hospital) - Malignant melanoma (1); Melanoma (1)
Illinois (Chicago) - Melanoma
Illinois (Marion Memorial Hospital) - Malignant melanoma, probably metastatic
Indiana (Fort Wayne) - Metastatic melanoma, stomach
Kansas (University of Kansas Medical Center) - Melanoma
Maryland (National Naval Medical Center) - Melanoma
Massachusetts (Providence Pathology Associates) - Metastatic melanoma, stomach
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Melanoma
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Metastatic melanoma (1); Melanoma (1)
Michigan (Spectrum Health) - Melanoma
Minnesota (Golden Gopher Study) - Melanoma
Missouri (Ferguson Labs) - Melanoma
Nebraska (Good Samaritan Hospital) - Metastatic melanoma
New York (East Meadow) - Melanoma, stomach
New York (Impath) - Melanoma
Pennsylvania (Allegheny General Hospital Residents) - Metastatic melanoma
Texas (Houston) - Malignant melanoma
Texas (Lubbock) - Melanoma
Texas (ProPath Associates) - Melanoma (1); GIST – malignant epithelioid type with melanoma differentiation (rule out metastatic melanoma) (1)

Texas (San Antonio) - Melanoma
Texas (Shannon Clinic Pathology) - Melanoma
Washington (Madigan Army Medical Center) - Melanoma
Washington, DC - Melanoma vs. epithelioid GIST
Canada (CUSE Site Fleurimont) - Metastatic melanoma
Canada (Foothills Hospital, Calgary) - Epithelioid malignant melanoma
China (Sir Run Run Shaw Hospital) - Malignant melanoma
Japan (Kawasaki Medical School Hospital) - Malignant melanoma (4)
Japan (Minami-Ku, Sapporo) - Malignant Schwannoma
Puerto Rico (Universidad de Puerto Rico) - Melanoma
Singapore - Metastatic melanoma
Singapore (Tan Tock Seng Hospital) - Melanoma
Spain (POVISA, Vigo) - Melanoma

Case 5 - Diagnosis:
Melanoma, Stomach
T-63000, M-87203

Case 5 - References:

Basagoiti ML, Vesga F, et al. Gastric Metastasis of Melanoma. *Rev Esp Enferm Dig* 1992; 82(6):419-421.
Ihde JK and Coit DG. Melanoma Metastatic to Stomach, Small Bowel, or Colon. *Am J Surg* 1991; 162(3):208-211.
Caputy GG, Donohue JH, Goellner JR, et al. Metastatic Melanoma of the Gastrointestinal Tract. Results of Surgical Management. *Arch Surg* 1991; 126(11):1353-1358.
Macak J. Melanoma of the Stomach. Reality or Fiction? *Pathologica* (Italy) 1998; 90(4):388-390.

Case No. 6, Accession No. 26372 April 2001

Glendale (Glendale Pathology Associates) - Desmoplastic small round cell tumor
Modesto - Endocrine carcinoma
Mountain View (El Camino Pathology Group) - Intra-abdominal desmoplastic small round cell tumor
Orange (UCI Medical Center Residents) - Neuroendocrine carcinoma vs. acinar carcinoma
Sacramento (UCD Medical Center) - Solid – pseudopapillary tumor
Arkansas (Little Rock) - Intra-abdominal desmoplastic small round cell tumor
Colorado (Unipath) - Islet cell tumor
Florida (Munroe Regional Medical Center) - Solid-pseudopapillary tumor
Florida (Winter Haven Hospital) - Immunoblastic lymphoma (1); Malignant stromal tumor, rule out ovarian 1° (1)
Illinois (Chicago) - Acinic cell carcinoma
Illinois (Marion Memorial Hospital) - Islet cell tumor, low grade malignant
Indiana (Fort Wayne) - Malignant islet cell carcinoma of pancreas, rule out amphicrine neoplasm (malignant)
Kansas (University of Kansas Medical Center) - Neuroendocrine carcinoma, low grade (metastatic carcinoid)
Maryland (National Naval Medical Center) - Neuroendocrine carcinoma
Massachusetts (Providence Pathology Associates) - Acinar cell carcinoma, pancreas
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Intra-abdominal desmoplastic round cell tumor
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Malignant pancreatic endocrine neoplasm (1); Pancreatic endocrine carcinoma (1)
Michigan (Spectrum Health) - Desmoplastic small round cell tumor
Minnesota (Golden Gopher Study) - Acinar cell carcinoma
Missouri (Ferguson Labs) - Malignant islet cell tumor
Nebraska (Good Samaritan Hospital) - Endocrine carcinoma
New York (East Meadow) - Endocrine carcinoma, pancreas
New York (Impath) - Poorly differentiated endocrine carcinoma of pancreas
Pennsylvania (Allegheny General Hospital Residents) - Neuroendocrine carcinoma, moderately differentiated

Texas (Houston) - Neuroendocrine carcinoma
Texas (Lubbock) - Islet cell tumor
Texas (ProPath Associates) - Pleomorphic carcinoma (1); Pleomorphic carcinoma, spindle and small cell type (1)
Texas (San Antonio) - Neuroendocrine carcinoma
Texas (Shannon Clinic Pathology) - Pancreatic endocrine carcinoma
Washington (Madigan Army Medical Center) - Acinar cell carcinoma
Washington, DC - Acinar cell carcinoma
Canada (CUSE Site Fleurimont) - Acinic cell carcinoma
Canada (Foothills Hospital, Calgary) - Solid pseudopapillary tumor
China (Sir Run Run Shaw Hospital) - Malignant neuroectodermal tumor vs. anaplastic carcinoma of pancreas
Japan (Kawasaki Medical School Hospital) - Islet cell carcinoma (4)
Japan (Minami-Ku, Sapporo) - Poorly differentiated adenocarcinoma
Puerto Rico (Universidad de Puerto Rico) - Acinar cell carcinoma
Singapore - Malignant neuroendocrine tumor
Singapore (Tan Tock Seng Hospital) - Invasive carcinoma, consider solid pseudopapillary carcinoma and endocrine carcinoma
Spain (POVISA, Vigo) - Intra-abdominal desmoplastic small cell tumor

Case 6 - Diagnosis:

Malignant Pancreatic Endocrine Tumor ("Neuroendocrine Carcinoma"), Pancreas
T-59000, M-80103

Case 6 - References:

Pelosi G, Bresaola E, Bogina G, et al. Endocrine Tumors of the Pancreas. Ki-67 Immunoreactivity on Paraffin Sections is An Independent Predictor for Malignancy. A Comparison Study with Proliferating-Cell Nuclear Antigen and Progesterone Receptor Protein Immunostaining, Mitotic Index, and Other Clinicopathologic Variables. *Hum Pathol* 1996; 27(11):1124-1134.
Leteurtre E, Brami F, Kerr-Conte, et al. Mixed Ductal-Endocrine Carcinoma of the Pancreas. A Possible Pathogenic Mechanism for Arrhythmogenic Right Ventricular Cardiomyopathy. *Arch Pathol Lab Med* 2000; 124(2):284-286.
Kloppel G. Mixed Exocrine-Endocrine Tumors of the Pancreas. *Semin Diagn Pathol* 2000; 17(2):104-108.
Labate AM, Klimstra DL, et al. Comparative Cytologic Features of Pancreatic Acinar Cell Carcinoma and Islet Cell Tumor. *Diagn Cytopathol* 1997; 16(2):112-116.

Case No. 7, Accession No. 26038 April 2001

Glendale (Glendale Pathology Associates) - Hepatoblastoma
Modesto - Hepatoblastoma
Mountain View (El Camino Pathology Group) - Hepatoblastoma
Orange (UCI Medical Center Residents) - Mixed hepatoblastoma
Sacramento (UCD Medical Center) - Hepatoblastoma
Arkansas (Little Rock) - Hepatoblastoma, mixed type
Colorado (Unipath) - Small cell carcinoma
Florida (Munroe Regional Medical Center) - Hepatoblastoma
Florida (Winter Haven Hospital) - Hepatoblastoma (2)
Illinois (Chicago) - Hepatoblastoma, mixed type
Illinois (Marion Memorial Hospital) - Hepatoblastoma
Indiana (Fort Wayne) - Hepatoblastoma, liver
Kansas (University of Kansas Medical Center) - Hepatoblastoma
Maryland (National Naval Medical Center) - Hepatoblastoma
Massachusetts (Providence Pathology Associates) - Hepatoblastoma
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Hepatoblastoma
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Hepatoblastoma (2)
Michigan (Spectrum Health) - Hepatoblastoma
Minnesota (Golden Gopher Study) - Hepatoblastoma
Missouri (Ferguson Labs) - Hepatoblastoma

Nebraska (Good Samaritan Hospital) - Hepatoblastoma
New York (East Meadow) - Hepatoblastoma, embryonal variant, liver
New York (Impath) - Hepatoblastoma
Pennsylvania (Allegheny General Hospital Residents) - Hepatoblastoma
Texas (Houston) - Hepatoblastoma
Texas (Lubbock) - Carcinoid tumor
Texas (ProPath Associates) - Hepatoblastoma (1); Hepatoblastoma, mixed type
Texas (San Antonio) - Hepatoblastoma (mixed)
Texas (Shannon Clinic Pathology) - Hepatoblastoma
Washington (Madigan Army Medical Center) - Hepatoblastoma (fetal type)
Washington, DC - Hepatoblastoma
Canada (CUSE Site Fleurimont) - Hepatoblastoma, epithelial type, fetal subtype
Canada (Foothills Hospital, Calgary) - Fetal hepatoblastoma with extramedullary hematopoiesis
China (Sir Run Run Shaw Hospital) - Hepatoblastoma of liver
Japan (Kawasaki Medical School Hospital) - Hepatoblastoma (4)
Japan (Minami-Ku, Sapporo) - Hepatoblastoma
Puerto Rico (Universidad de Puerto Rico) - Hepatoblastoma, mixed epithelial and mesenchymal type
Singapore - Hepatoblastoma
Singapore (Tan Tock Seng Hospital) - Hepatoblastoma, mixed epithelial and mesenchymal
Spain (POVISA, Vigo) - Mixed hepatoblastoma

Case 7 - Diagnosis:
Hepatoblastoma, Liver
T-56000, M-89703

Case 7 – Reference:

Ishak KG and Glunz PR. Hepatoblastoma and Hepatocarcinoma in Infancy and Childhood. Report of 47 Cases. *Cancer* 1967; 20(3):396-422
Isaacs H, Jr. Perinatal (Congenital and Neonatal) Neoplasms. A Report of 110 Cases. *Pediatr Pathol* 1985; 3(2-4):165-216.
Torzilli G, Takayama T, Hue Am, et al. A New Technical Aspect of Ultrasound-guided Liver Surgery. *Am J Surg* 1999; 178(4):341-343.
Lack EE, Neave C and Vawter GF. Hepatoblastoma.. A Clinical and Pathologic Study of 54 Cases. *Am J Surg Pathol* 1982; 6(8):693-705.
Exelby PR, Filler RM and Grosfeld JL. Liver Tumors in Children in the Particular Reference to Hepatoblastoma and Hepatocellular Carcinoma. American Academy of Pediatrics Surgical Section Survey 1974; J *Pediatr Surg* 10(3):329-337.

Case No. 8, Accession No. 26336 April 2001

Glendale (Glendale Pathology Associates) - Angiosarcoma
Modesto - Angiosarcoma
Mountain View (El Camino Pathology Group) - Angiosarcoma
Orange (UCI Medical Center Residents) - Angiosarcoma
Sacramento (UCD Medical Center) - Angiosarcoma
Arkansas (Little Rock) - Kaposi form angiosarcoma, liver
Colorado (Unipath) - Angiosarcoma
Florida (Munroe Regional Medical Center) - Angiosarcoma
Florida (Winter Haven Hospital) - Angiosarcoma (2)
Illinois (Chicago) - Angiosarcoma
Illinois (Marion Memorial Hospital) - Angiosarcoma
Indiana (Fort Wayne) - Hemangioendothelioma, liver
Kansas (University of Kansas Medical Center) - Angiosarcoma
Maryland (National Naval Medical Center) - Angiosarcoma
Massachusetts (Providence Pathology Associates) - Hemangioma, liver

Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Angiosarcoma
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Angiosarcoma (2)
Michigan (Spectrum Health) - Angiosarcoma
Minnesota (Golden Gopher Study) - Angiosarcoma
Missouri (Ferguson Labs) - Angiosarcoma
Nebraska (Good Samaritan Hospital) - Angiosarcoma
New York (East Meadow) - Angiosarcoma, liver
New York (Impath) - Angiosarcoma
Pennsylvania (Allegheny General Hospital Residents) - Angiosarcoma
Texas (Houston) - Angiosarcoma
Texas (Lubbock) - Hemangioendothelioma
Texas (ProPath Associates) - Angiosarcoma (2)
Texas (San Antonio) - Angiosarcoma
Texas (Shannon Clinic Pathology) - Angiosarcoma
Washington (Madigan Army Medical Center) - Angiosarcoma
Washington, DC - Angiosarcoma
Canada (CUSE Site Fleurimont) - Angiosarcoma
Canada (Foothills Hospital, Calgary) - Angiosarcoma
China (Sir Run Run Shaw Hospital) - Angiosarcoma of liver
Japan (Kawasaki Medical School Hospital) - Angiosarcoma (4)
Japan (Minami-Ku, Sapporo) - Angiosarcoma
Puerto Rico (Universidad de Puerto Rico) - Angiosarcoma
Singapore - Angiosarcoma
Singapore (Tan Tock Seng Hospital) - Angiosarcoma
Spain (POVISA, Vigo) - Angiosarcoma

Case 8 - Diagnosis:
Angiosarcoma, Liver
T-56000, M-91203

Case 8 - References:

Saleh HA and Tao LC. Hepatic Angiosarcoma. Aspiration Biopsy Cytology and Immunocytochemical Contribution. *Diagn* Cytopathol 1998; 18(3):208-211.
Nguyen GK and Husain N. Fine-Needle Aspriation Biopsy Cytology of Angiosarcoma. *Diagn Cytopathol* 2000; 23(2):143-145.
Epidemiologic Notes and Reports. Angiosarcoma of the Liver Among Polyvinyl Chloride Workers-Kentucky. 1974. *MMWR Morb Mortal Wkly Red* 1997; 46(5):97-101.
Selby DM, Stocker JT, et al. Angiosarcoma of the Liver in Childhood . A Clinicopathologic and Follow-Up Study of 10 Cases. *Pediatr Pathol* 1992; 12(4):485-498.

Case No. 9, Accession No. 28727 April 2001

Glendale (Glendale Pathology Associates) - Giant cell carcinoma
Modesto - Undifferentiated carcinoma
Mountain View (El Camino Pathology Group) - Metastatic hepatoma
Orange (UCI Medical Center Residents) - Carcinoma vs. melanoma vs. high grade lymphoma
Sacramento (UCD Medical Center) - Gastrointestinal stromal tumor
Arkansas (Little Rock) - Pleomorphic (giant cell) carcinoma, colon
Colorado (Unipath) - GIST
Florida (Munroe Regional Medical Center) - Carcinoma with hepatoid features , metastatic combined hepatocellular, cholangiocarcinoma
Florida (Winter Haven Hospital) - Poorly differentiated adenocarcinoma
Illinois (Chicago) - Hepatoma
Illinois (Marion Memorial Hospital) - Large cell anaplastic carcinoma

Indiana (Fort Wayne) - Adenocarcinoma, colon
Kansas (University of Kansas Medical Center) - Hepatocellular carcinoma vs. melanoma vs. GIST, malignant
Maryland (National Naval Medical Center) - Epithelial GIST (5); Poorly differentiated carcinoma (2)
Massachusetts (Providence Pathology Associates) - Adenocarcinoma, colon, poorly differentiated
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Poorly differentiated carcinoma
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Metastatic hepatocellular carcinoma (2)
Michigan (Spectrum Health) - Metastatic hepatocellular carcinoma
Minnesota (Golden Gopher Study) - Poorly differentiated carcinoma, rule out melanoma and hepatocellular carcinoma
Missouri (Ferguson Labs) - Adenocarcinoma
Nebraska (Good Samaritan Hospital) - Poorly differentiated carcinoma
New York (East Meadow) - Adenocarcinoma, poorly differentiated
New York (Impath) - High grade carcinoma, colon 1° (2), liver 1° (2)
Pennsylvania (Allegheny General Hospital Residents) - Metastatic hepatocellular carcinoma
Texas (Houston) - GIST
Texas (Lubbock) - Poorly differentiated adenocarcinoma
Texas (ProPath Associates) - Malignant stromal tumor (1); Malignant stromal tumor, epithelial type (1)
Texas (San Antonio) - Cancer, favor neuroendocrine carcinoma vs. MET
Texas (Shannon Clinic Pathology) - Malignant gastrointestinal stromal tumor
Washington (Madigan Army Medical Center) - Poorly differentiated carcinoma
Washington, DC - Metastatic hepatoma
Canada (CUSE Site Fleurimont) - Hepatoid adenocarcinoma
Canada (Foothills Hospital, Calgary) - Epithelioid GIST, malignant
China (Sir Run Run Shaw Hospital) - Anaplastic adenocarcinoma of colon
Japan (Kawasaki Medical School Hospital) - Hepatocellular carcinoma (3); Adenocarcinoma (1)
Japan (Minami-Ku, Sapporo) - Gastrointestinal stromal tumor
Puerto Rico (Universidad de Puerto Rico) - Metastatic hepatocellular carcinoma
Singapore - Metastatic hepatocellular carcinoma
Singapore (Tan Tock Seng Hospital) - Malignant epithelioid GIST
Spain (POVISA, Vigo) - Hepatocarcinoma vs. carcinoid tumor

Case 9 - Diagnosis:

Poorly-Differentiated Adenocarcinoma, Probably Hepatocellular

T-56000, M-81703

Case 9 - References:

Gouillat C, Mauganas D, Saguier G, et al. Resection of Hepatocellular Carcinoma in the Cirrhotic Patients. Longterm Results of a Prospective Study. *J Am Coll Surg* 1999; 189(3):282-290.
Ganne-Carrie N, Chastang C, et al. Predictive Score For the Development of Hepatocellular Carcinoma and Additional Value of Liver Large Cell Dysplasia in Western Patients with Cirrhosis. *Hepatology* 1996; 23(5):1112-1118.
Ferrell L, Crawford JM, Dhillon AP, et al. Proposal for Standardized Criteria for Diagnosis of Benign, Borderline and Hepatocellular Lesions Arising in Chronic Advanced Liver Disease. *Am J Surg Pathol* 1993; 17(11):1113-1123.
Kojiro M, Yano H and Nakashima O. Pathology of Early Hepatocellular Carcinoma. Progression from Early to Advanced. *Semin Surg Oncol* 1996; 12(3):197-203.

Case No. 10, Accession No. 28746 April 2001

Glendale (Glendale Pathology Associates) - Adenocarcinoma
Modesto - Mucin-producing adenocarcinoma, can't rule out cholangiocarcinoma
Mountain View (El Camino Pathology Group) - Cholangiocarcinoma
Orange (UCI Medical Center Residents) - Cholangiocarcinoma
Sacramento (UCD Medical Center) - Cholangiocarcinoma
Arkansas (Little Rock) - Bile duct carcinoma (cholangiocarcinoma)
Colorado (Unipath) - Cholangiocarcinoma

Florida (Munroe Regional Medical Center) - Bile duct carcinoma
Florida (Winter Haven Hospital) - Cholangiocarcinoma (2)
Illinois (Chicago) - Cholangiocarcinoma
Illinois (Marion Memorial Hospital) - Metastatic adenocarcinoma consistent with bile duct origin
Indiana (Fort Wayne) - Cholangiocarcinoma, liver
Kansas (University of Kansas Medical Center) - Cholangiocarcinoma
Maryland (National Naval Medical Center) - Cholangiocarcinoma
Massachusetts (Providence Pathology Associates) - Intrahepatic bile duct carcinoma
Michigan (St. Joseph's Mercy Hospital, Ann Arbor) - Cholangiocarcinoma, intestinal type
Michigan (St. Mary's Mercy Medical Center, Grand Rapids) - Cholangiocarcinoma (2)
Michigan (Spectrum Health) - Klatskin tumor
Minnesota (Golden Gopher Study) - Cholangiocarcinoma
Missouri (Ferguson Labs) - Cholangiocarcinoma
Nebraska (Good Samaritan Hospital) - Cholangiocarcinoma
New York (East Meadow) - Intrahepatic cholangiocarcinoma, liver
New York (Impath) - Cholangiocarcinoma
Pennsylvania (Allegheny General Hospital Residents) - Cholangiocarcinoma
Texas (Houston) - Hepatocellular carcinoma with duct-like features mixed with cholangiocarcinoma
Texas (Lubbock) - Cholangiocarcinoma
Texas (ProPath Associates) - Bile duct adenocarcinoma (2)
Texas (San Antonio) - Adenocarcinoma, favor primary cholangiocarcinoma
Texas (Shannon Clinic Pathology) - Combine hepatocellular, cholangiocarcinoma
Washington (Madigan Army Medical Center) - Cholangiocarcinoma
Washington, DC - Bile duct carcinoma
Canada (CUSE Site Fleurimont) - Extra hepatic bile duct carcinoma, hilar type
Canada (Foothills Hospital, Calgary) - Hepatic duct adenocarcinoma, intestinal type
China (Sir Run Run Shaw Hospital) - Cholangiocarcinoma
Japan (Kawasaki Medical School Hospital) - Cholangiocellular carcinoma (3); Hepatocellular carcinoma (1)
Japan (Minami-Ku, Sapporo) - Intrahepatic cholangiocarcinoma
Puerto Rico (Universidad de Puerto Rico) - Cholangiocarcinoma
Singapore - Cholangiocarcinoma
Singapore (Tan Tock Seng Hospital) - Cholangiocarcinoma
Spain (POVISA, Vigo) - Cholangiocarcinoma

Case 10 - Diagnosis:

Cholangiocarcinoma, Liver

T-56000, M-81603

Case 10 - References:

Fujii H, Zhu YG, Matsumoto T, et al. Genetic Classification of Combined Hepatocellular-Cholangiocarcinoma. *Hum Pathol* 2000; 31: (9):1011-1017.

Shimonishi T, Miyazaki K, et al. Cytokeratin Profile Relates to Histological Subtypes and Intrahepatic Location of Intrahepatic Cholangiocarcinoma and Primary Sites of Metastatic Adenocarcinoma of Liver. *Histopath* 2000; 37(1):55-63.

Maeda T, Adachi E, et al. Combined Hepatocellular and Cholangiocarcinoma. Proposed Criteria According to Cytokeratin Expression and Analysis of Clinicopathologic Features. *Hum Pathol* 1995; 26(9):956-964.

Goldstein RM, Stone M, Tillery GW, et al. Is Liver Transplantation Indicated for Cholangiocarcinoma? *Am J Surg* 1993; 166(6):78-771.

Jain D, Sarode VR, Abdul-Karim FW, et al. Evidence for the Neoplastic Transformation of Von-Meyenburg Complexes. *Am J Surg Pathol* 2000; 24(8):1131-1139.