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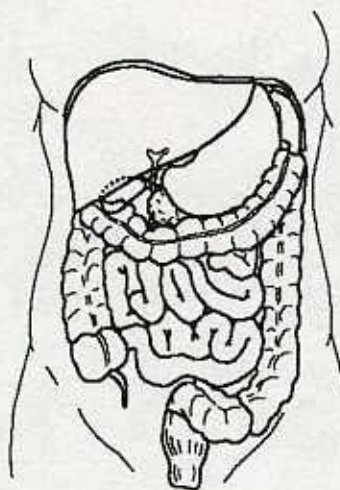


CALIFORNIA
TUMOR TISSUE REGISTRY

“PATHOLOGY OF THE DIGESTIVE SYSTEM”

Study Cases, Subscription A

November 2005



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: cttr@linkline.com
Web page: www.cttr.org
Web site & Case of the Month: www.cttr.org

Target audience:

Practicing pathologists and pathology residents.

Goal:

To acquaint the participant with the histologic features of a variety of benign and malignant neoplasms and tumor-like conditions.

Objectives:

The participant will be able to recognize morphologic features of a variety of benign and malignant neoplasms and tumor-like conditions and relate those processes to pertinent references in the medical literature.

Educational methods and media:

Review of representative glass slides with associated histories.
Feedback on consensus diagnoses from participating pathologists.
Listing of selected references from the medical literature.

Principal faculty:

Weldon K. Bullock, MD
Donald R. Chase, MD

CME Credit:

Loma Linda University School of Medicine designates this continuing medical education activity for a maximum of 2 hours of Category I of the Physician's Recognition Award of the American Medical Association.
CME credit is offered for the subscription year only.

Accreditation:

Loma Linda University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

Contributor: Donovan Hare, M.D.
Redlands, CA

Case No. 1 - November 2005

Tissue from: Colon

Accession #30353

Clinical Abstract:

A large polyp was found on flexible sigmoidoscopy in this 39 year old woman.

Gross Pathology:

The 2.3 x 2 x 1.9 cm snared polyp was irregularly nodular, pink to red-tan and hemorrhagic, with an apparent stalk.

Contributor: Pamela Boswell, D.O.
San Diego, CA

Case No. 2 - November 2005

Tissue from: Jejunum

Accession #30056

Clinical Abstract:

Six years after resection and post-operative radiation therapy for a rectal neoplasm, this 58 year old woman complained of epigastric pain and nausea. An abdominal CT showed focal circumferential soft tissue thickening of the jejunal wall up to 1 cm thick, with proximal dilatation. No peripheral inflammatory changes were seen. Thickening of the rectal wall was noted, consistent with a prior history of radiation therapy to that region.

Gross Pathology:

Not available.

Contributor: LLUMC Pathology (wc)
Loma Linda, CA

Case No. 3 - November 2005

Tissue from: Liver

Accession #30037

Clinical Abstract:

This 12 month old baby boy was noticed by his parents to have an enlarged abdomen.

Gross Pathology:

The 106 gram, 13 x 8.7 x 3.5 cm left lobe of liver contained a 4.5 x 3.5 x 3.2 cm white tan tumor.

Contributor: Guillermo Acero, M.D.
Santa Paula, CA

Case No. 4 - November 2005

Tissue from: Liver

Accession #29647

Clinical Abstract:

Early in her third pregnancy, this 37 year old woman was noted to have a 15 x 8 cm hypoechogenic mass in her liver. Her pregnancy was complicated by rising blood pressure and a breech presentation. A partial hepatectomy was performed at the time of her Cesarean section.

Gross Pathology:

The 820 gram specimen included a 16 x 12 x 6 cm brown-tan mass with a lobulated cut surface.

Contributor: Beverly Myers, M.D.
Roseville, CA

Case No. 5 - November 2005

Tissue from: Right ovary

Accession #29824

Clinical Abstract:

On physical examination, this 30 year old woman was noted to have a right ovarian mass. She had a 2-year history of a hepatic mass. Alpha-fetoprotein and CEA were elevated. At laparotomy, liver biopsies were taken and a right salpingo-oophorectomy was performed.

Gross Pathology:

The smooth-surfaced ovary contained a 5 cm diameter cyst with hemorrhagic fluid. The lining of the cyst had a soft nodule, without papillary projections.

Special Studies:

HepPar1	strong diffuse positivity
CK7	negative
CK20	negative
ER/PR	negative

Contributor: John Blaustein, M.D.
Santa Barbara, CA

Case No. 6 - November 2005

Tissue from: Pancreas

Accession #29918

Clinical Abstract:

A 75 year old man was found to have a pancreatic mass.

Gross Pathology:

The 633 gram specimen included pancreas, spleen and omentum. Attached to the pancreas, surrounded by an areolar membrane, was a 13 x 12 x 8.5 cm mass. The cut surface showed a pink-tan fine meshwork of sponge-like cysts exuding clear serous fluid. There was a central 6.5 x 5.5 x 5 cm stellate scar.

Contributor: David Shimizu, M.D.
Honolulu, HI

Case No. 7 - November 2005

Tissue from: Pancreas

Accession #29174

Clinical Abstract:

After multiple craniotomies for brain tumors, and a left nephrectomy and a partial right nephrectomy for renal cell carcinoma, imaging studies on this 40 year old man with von Hippel-Lindau syndrome showed multiple cysts in the pancreas with an enlarging mass in the head of the pancreas.

Gross Pathology:

The 256 gram specimen included the head of the pancreas with portions of duodenum and jejunum. Within the pancreatic head was a 4.5 x 4.2 cm hemorrhagic tan mass.

Special Studies:

Chromogranin:	positive
Keratin	negative

Contributor: Catherine Odell, M.D.
Riverside, CA

Case No. 8 - November 2005

Tissue from: Stomach

Accession #30043

Clinical Abstract:

An 84 year old female was found to have diffuse thickening of her distal stomach.

Gross Pathology:

The distal gastrectomy specimen showed diffuse thickening of the gastric wall, most prominent over a 7 x 6 cm area in the more distal portion. The mucosa showed flattening of the rugae and focal ulceration.

**Contributor: LLUMC Pathology (mp)
Loma Linda, CA**

Case No. 9 - November 2005

Tissue from: Appendix and Colon

Accession #30060

Clinical Abstract:

After 2 days of nausea and vomiting, with episodes of bilious vomiting, this 42 year old man was found to have masses in both his cecum and his sigmoid colon.

Gross Pathology:

The 322 gram ileocecal resection specimen had an enlarged appendix with tumor diffusely infiltrating the wall and obliterating the lumen. Near the ileocecal valve was a 2 x 2 x 1 cm submucosal ileal tumor. The bowel wall of the 477 gram rectosigmoid resection specimen was markedly thickened, resulting in a pinpoint lumen.

**Contributor: Anthony Migler, M.D.
Oxnard, CA**

Case No. 10 - November 2005

Tissue from: Stomach

Accession #29841

Clinical Abstract:

This 76 year old man complained of abdominal pain and a palpable mass.

Gross Pathology:

Just beneath the gastric antral mucosa was a 20 x 15 cm focally cystic and necrotic mass.

Special Studies:

CD117	positive
CD34	positive
S100	negative
Desmin	negative



CALIFORNIA
TUMOR TISSUE REGISTRY

PATHOLOGY OF THE DIGESTIVE SYSTEM

Minutes – Subscription A

November, 2005



SUGGESTED READING (General Topics from Recent Literature):

- Long-Term Trends in Thyroid Carcinoma. Burke JP, Hay ID, Dignan F, et al. A Population-Based Study in Olsted County, Minnesota, 1935-1999. *Mayo Clin Proc* 2005; 80(6):753-758.
- The Global Spread of Type 2 Diabetes Mellitus in Children and Adolescents. Orit Pinhas-Hamiel and Zeitler P. *J of Pediatrics* 2005; May 2005; 693-700.
- Guiding Prostate Cancer Treatment Choices. Early Detection Means More Options for More Men. *Prostate Cancer Treatment* 2005; 117(4):45-50.
- Virology, Pathology and Clinical Manifestations of West Nile Virus Disease. Hayes EB, Sejvar JJ, et al. *Emerg Infect Dis* 2005; 11:1174-1179.
- Androgen Receptors Are Frequently Expressed in Mammary and Extramammary Paget's Disease. *Mod Pathol* 2005; 18(9):1283-1288.
- Prognostic Factors in Thymic Epithelial Tumors Undergoing Complete Resection. Zisis C, Rontogianni D, et al. *Ann Thorac Surg* 2005; 80:1056-1062.

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FILE DIAGNOSES

CTTR Subscription A

November, 2005

Case 1:

Polypoid ganglioneuroma, colon
T-67700, M-94900

Case 2:

Adenocarcinoma, jejunum
T-65100, M-81403

Case 3:

Hepatoblastoma, liver
T-56000, M-89703

Case 4:

Liver cell adenoma
T-56000, M-81700

Case 5:

Metastatic hepatocellular carcinoma, ovary
T-87000, M-81703

Case 6:

Serous microcystic adenoma, pancreas
T-59000, M-81400

Case 7:

Pancreatic endocrine tumor, pancreas
T-59000, D-2380

Case 8:

Diffuse poorly differentiated signet ring adenocarcinoma (linitis plastica type), stomach
T-63000, M-81403

Case 9:

Goblet cell carcinoid tumor, appendix
T-66000, M-68950

Case 10:

Gastrointestinal stromal tumor, stomach
T-63000, M-80001

Baldwin Park (Kaiser Permanente) - Ganglioneuroma (3)
Clovis - Ganglioneuroma
Fontana (Kaiser Permanente Hospital) - Ganglioneuroma
Fresno (St. Agnes Medical Center) - Ganglioneuroma
Loma Linda (LLUMC Residents) - Ganglioneuroma
Long Beach - Ganglioneuroma (10)
Monterey Park (Monterey Peninsula Pathologists) - Ganglioneuroma
Woodland Hills (Warriors) - Ganglioneuroma
Mountain View (El Camino Hospital) - Ganglioneuroma
Ventura - Ganglioneuroma
Mountain View (El Camino Pathology Group) - Ganglioneuroma
Oakland (Highland Hospital) - Ganglioneuroma
Orange (Orange County Medical Group) - Polypoid ganglioneuroma
San Diego (Naval Medical Center) - Polypoid ganglioneuroma (1); Ganglioneuroma (1)
San Francisco (San Francisco General Hospital) - Ganglioneuroma
Santa Rosa (Santa Rosa Memorial Hospital) - Polypoid ganglioneuroma (3)
Arizona, Oro Valley - Ganglioneuroma
Colorado, Evergreen - Polypoid ganglioneuroma
Florida, Tallahassee - Ganglioneuroma
Florida (Winter Haven Hospital) - Polypoid ganglioneuroma (1); Inflammatory polyp (1)
Georgia, Decatur - Ganglioneuroma
Illinois, Burr Ridge - Ganglioneuromatous polyp
Illinois (Evanston Hospital) - Ganglioneuromatous polyp
Illinois (Great Lakes Naval Hospital) - Ganglioneuroma
Illinois (Fairview Ridges Hospital) - Polypoid ganglioneuroma
Illinois (Northwestern Memorial Hospital) - Ganglioneuroma
Illinois, Oak Brook - Ganglioneuroma
Indiana (Ball Memorial Hospital) - Polypoid ganglioneuroma
Indiana (Kokomo Pathologist Health System) - Polypoid ganglioneuroma
Kentucky (University of Louisville Hospital) - Ganglioneuroma
Louisiana (Louisiana State University Medical Center) - Ganglioneuroma
Maryland (National Naval Medical Center) - Ganglioneuroma
Maryland (University of Maryland) - Ganglioneuroma
Massachusetts (Tufts-New England Medical Center) - Ganglioneuroma
Michigan (Michigan University Residents) - Peutz-Jeghers polyp
Michigan (Oakwood Hospital) - Ganglioneuroma
Nebraska (Creighton University School of Medicine) - Ganglioneuroma
New York (Nassau University Medical Center) - Ganglioneuroma
New York (Stony Brook University Hospital Residents) - Ganglioneuromatous polyp
New York (Westchester Medical Center) - Ganglioneuroma
North Carolina (Mountain Area Pathology) - Ganglioneuroma (4)
North Carolina (Pisgah Association of Pathology) - Ganglioneuroma
Ohio (McCullough Hyde Memorial Hospital) - Neurofibroma
Oklahoma, Oklahoma City - Polypoid ganglioneuroma
Pennsylvania (Allegheny General Hospital) - Ganglioneuroma
Pennsylvania (Conemaugh Memorial Medical Center) - Polypoid ganglioneuroma
Pennsylvania (Mt. Nittany Medical Center) - Ganglioneuroma, colon
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Inflammatory polyp
Texas, Houston - Juvenile polyp
Texas, Lubbock - Hamartomatous polyp
Texas (ProPath Associates) - Ganglioneuroma (1); Polypoid ganglioneuroma (1)

Texas, San Antonio - Solitary polypoid ganglioneuroma
Texas (Scott & White Memorial Hospital) - Ganglioneuroma
Texas (Wilford Hall Medical Center) - Ganglioneuroma
Wisconsin (Bellin Health) - Ganglioneuroma
West Virginia (Greenbrier Valley Medical Center) - Tubular adenoma
Australia (North Queensland Pathology) - Peutz Jager polyp
Australia (Royal Prince Alfred Hospital) - Polypoid ganglioneuroma
Brazil, Sao Paulo - Polyp with ganglioneuromatous proliferation
Canada (Pasqua Hospital) - Ganglioneuroma
Germany (UKE, Kerninstitut für Pathologie) - Ganglioneuroblastoma
Jamaica (The University of the West Indies) - Peutz-Jeghers polyp
Japan (Asahi General Hospital) - Ganglioneuroma, sigmoid colon
Japan (Kyoto University Hospital) - Ganglioneuroma (1); Juvenile polyp with ganglioneuromatous proliferation (1)
Netherlands, Amstelveen - Isolated polypoid ganglioneuroma
Qatar (Hamad Medical Corporation) - Ganglioneuromatosis

Case 1 - Diagnosis:

Polypoid ganglioneuroma, colon
 T-67000, M-94900

Case 1 – References:

Michalak S, Crue A, Valo I, et al. Diffuse Colonic Ganglioneuromatous Polyposis. *Ann Pathol* 2004; 24 (2):129-134.
 Torrisi A, Carillio G, Libra M, et al. Solitary Ganglioneuroma of the Ileo-Cecal Valve. *Pathologica* 2003; 95(4):192-195.
 Kanter AS, Hyman NH and Li SC. Ganglioneuromatous Polyposis. A Premalignant Condition. Report of a Case and Review of the Literature. *Dis Colon Rectum* 2001; 44(4):591-593.

Case No. 2, Accession No. 30056

November 2005

Baldwin Park (Kaiser Permanente) - Adenocarcinoma, primary (1); Invasive moderately differentiated adenocarcinoma arising in small intestine (1); Adenocarcinoma arising in small bowel (1)
Clovis - Adenocarcinoma, favor metastatic from rectal carcinoma
Fontana (Kaiser Permanente Hospital) - Adenocarcinoma, primary
Fresno (St. Agnes Medical Center) - Adenocarcinoma (radiation induced?)
Loma Linda (LLUMC Residents) - Primary adenocarcinoma, small intestine
Long Beach - Adenocarcinoma (10)
Monterey Park (Monterey Peninsula Pathologists) - Adenocarcinoma
Woodland Hills (Warriors) - Adenocarcinoma (favor new primary)
Mountain View (El Camino Hospital) - Invasive adenocarcinoma
Ventura - Metastatic colonic adenocarcinoma
Mountain View (El Camino Pathology Group) - Invasive adenocarcinoma
Oakland (Highland Hospital) - Adenocarcinoma, invasive
Orange (Orange County Medical Group) - Primary adenocarcinoma
San Diego (Naval Medical Center) - Adenocarcinoma arising in a tubular adenoma (1); Adenocarcinoma (arising from adenoma) (1)
San Francisco (San Francisco General Hospital) - Metastatic adenocarcinoma
Santa Rosa (Santa Rosa Memorial Hospital) - Jejunal adenocarcinoma (1); Adenocarcinoma, arising from villous adenoma (1); Adenocarcinoma of jejunum (1)
Arizona, Oro Valley - Invasive adenocarcinoma
Colorado, Evergreen - Moderately differentiated adenocarcinoma associated with villous adenoma
Florida, Tallahassee - Adenocarcinoma
Florida (Winter Haven Hospital) - Primary jejunal adenocarcinoma (1); Adenocarcinoma (1)
Georgia, Decatur - Adenocarcinoma of jejunum
Illinois, Burr Ridge - Adenocarcinoma, radiation induced?

Illinois (Evanston Hospital) - Adenocarcinoma of jejunum
Illinois (Great Lakes Naval Hospital) - Adenocarcinoma
Illinois (Fairview Ridges Hospital) - Adenocarcinoma well-differentiated invading through muscularis propria
Illinois (Northwestern Memorial Hospital) - Adenocarcinoma consistent with primary
Illinois, Oak Brook - Invasive adenocarcinoma
Indiana (Ball Memorial Hospital) - Adenocarcinoma
Indiana (Kokomo Pathologist Health System) - Primary adenocarcinoma, small bowel
Kentucky (University of Louisville Hospital) - Invasive, moderately differentiated adenocarcinoma, likely primary
Louisiana (Louisiana State University Medical Center) - Moderately differentiated adenocarcinoma arising in a villous adenoma
Maryland (National Naval Medical Center) - Adenocarcinoma
Maryland (University of Maryland) - Adenocarcinoma arising from a villous adenoma
Massachusetts (Tufts-New England Medical Center) - Adenocarcinoma
Michigan (Michigan University Residents) - Adenocarcinoma of the small intestine, well-differentiated
Michigan (Oakwood Hospital) - Invasive adenocarcinoma
Nebraska (Creighton University School of Medicine) - Moderately differentiated adenocarcinoma
New York (Nassau University Medical Center) - Adenocarcinoma, jejunum
New York (Stony Brook University Hospital Residents) - Invasive adenocarcinoma, moderately differentiated
New York (Westchester Medical Center) - Jejunal adenocarcinoma
North Carolina (Mountain Area Pathology) - Adenocarcinoma, probable small bowel primary (1); Moderately differentiated adenocarcinoma consistent with jejunal primary (1); Adenocarcinoma (1); Moderately differentiated adenocarcinoma (1)
North Carolina (Pisgah Association of Pathology) - Moderately differentiated jejunal adenocarcinoma with overlying adenoma
Ohio (McCullough Hyde Memorial Hospital) - Adenocarcinoma
Oklahoma, Oklahoma City - Moderately differentiated adenocarcinoma
Pennsylvania (Allegheny General Hospital) - Villoglandular carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Metastatic adenocarcinoma
Pennsylvania (Mt. Nittany Medical Center) - Metastatic adenocarcinoma, small bowel
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Adenocarcinoma
Texas, Houston - Adenocarcinoma ? metastatic
Texas, Lubbock - Adenocarcinoma
Texas (ProPath Associates) - Metastatic colonic adenocarcinoma (1); Adenocarcinoma – connected with colonic rectal region
Texas, San Antonio - Adenocarcinoma arising in a villous adenoma
Texas (Scott & White Memorial Hospital) - Invasive adenocarcinoma
Texas (Wilford Hall Medical Center) - Adenocarcinoma of the jejunum, moderately differentiated
Wisconsin (Bellin Health) - Invasive adenocarcinoma
West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma
Australia (North Queensland Pathology) - Adenocarcinoma arising in tubulovillous adenoma of large intestinal type
Australia (Royal Prince Alfred Hospital) - Villous adenocarcinoma
Brazil, Sao Paulo - Well-differentiated tubular intestinal type adenocarcinoma, rule out metastatic colonic carcinoma
Canada (Pasqua Hospital) - Adenocarcinoma, probably metastatic
Germany (UKE, Kerninstitut für Pathologie) - Adenocarcinoma (GII)
Jamaica (The University of the West Indies) - Adenocarcinoma, moderately differentiated, invasive
Japan (Asahi General Hospital) - Adenocarcinoma of jejunum arising in pre-existing adenoma, jejunum
Japan (Kyoto University Hospital) - Adenocarcinoma (2)
Netherlands, Amstelveen - Adenocarcinoma and angioinvasion
Qatar (Hamad Medical Corporation) - Adenocarcinoma of jejunum

Case 2 - Diagnosis:

Adenocarcinoma, jejunum
 T-65100, M-81403

Case 2 - References:

Dabaja BS, Suki D, Pro B, et al. Adenocarcinoma of the Small Bowel. Presentation, Prognostic Factors and Outcome of 217 Patients. *Cancer* 2004; 101(3):518-526.
 Green PH and Rampertab SD. Small Bowel Carcinoma and Coeliac Disease. *Gut* 2004; 53(5):774.

Dabaja BS, Suki O, Pro B, et al. Adenocarcinoma of the Small Bowel. Presentation, Prognostic Factors and Outcome of 217 Patients. *Cancer* 2004; 101(3):518-526.
Torres M, Matta E, China B, et al. Malignant Tumors of the Small Intestine. *J Clin Gastroenterol* 2003; 37(5):372-380.

Case No. 3, Accession No. 30037

November 2005

Baldwin Park (Kaiser Permanente) - Hepatoblastoma (1); Hepatoblastomal fetal and embryonal (1); Mesenchymal hamartoma (1)
Clovis - Malignant neoplasia (rhabdomyosarcoma vs. germ cell tumor vs. hepatoblastomas, (need immunohisto chemical stains)
Fontana (Kaiser Permanente Hospital) - Hepatoblastoma
Fresno (St. Agnes Medical Center) - Embryonal carcinoma arising in mesenchymal hamartoma
Loma Linda (LLUMC Residents) - Hepatoblastoma
Long Beach - Hepatoblastoma (10)
Monterey Park (Monterey Peninsula Pathologists) - Hepatoblastoma
Woodland Hills (Warriors) - Fetal neoplasm (NOS)
Mountain View (El Camino Hospital) - Hepatoblastoma, fetal type
Ventura - Hepatoblastoma
Mountain View (El Camino Pathology Group) - Hepatoblastoma, fetal type
Oakland (Highland Hospital) - Hepatoblastoma
Orange (Orange County Medical Group) - Mesenchymal hamartoma
San Diego (Naval Medical Center) - Mesenchymal hamartoma (1); Hepatoblastoma (17); Mesenchymal hamartoma (2)
San Francisco (San Francisco General Hospital) - Hepatoblastoma
Santa Rosa (Santa Rosa Memorial Hospital) - Hepatoblastoma (2); Hepatoblastoma, mixed epithelial/mesenchymal type (1)
Arizona, Oro Valley - Hepatoblastoma
Colorado, Evergreen - Mesenchymal hamartoma
Florida, Tallahassee - Hepatoblastoma
Florida (Winter Haven Hospital) - Hepatoblastoma (2)
Georgia, Decatur - Hepatoblastoma
Illinois, Burr Ridge - Hepatoblastoma
Illinois (Evanston Hospital) - Hepatoblastoma
Illinois (Great Lakes Naval Hospital) - Mesenchymal hamartoma
Illinois (Fairview Ridges Hospital) - Hepatoblastoma, epithelial, fetal pattern
Illinois (Northwestern Memorial Hospital) - Mesenchymal hamartoma
Illinois, Oak Brook - Hepatoblastoma, epithelioid type
Indiana (Ball Memorial Hospital) - Mesenchymal hamartoma
Indiana (Kokomo Pathologist Health System) - ? hepatocarcinoma
Kentucky (University of Louisville Hospital) - Hepatoblastoma, mixed type
Louisiana (Louisiana State University Medical Center) - Mesenchymal hamartoma
Maryland (National Naval Medical Center) - Hepatoblastoma, mixed type
Maryland (University of Maryland) - Hepatoblastoma vs. hamartoma
Massachusetts (Tufts-New England Medical Center) - Mesenchymal hamartoma
Michigan (Michigan University Residents) - Mesenchymal hamartoma
Michigan (Oakwood Hospital) - Favor involuted infantile hemangioendothelioma
Nebraska (Creighton University School of Medicine) - Hepatoblastoma
New York (Nassau University Medical Center) - Mesenchymal hamartoma
New York (Stony Brook University Hospital Residents) - Malignant mesenchymoma
New York (Westchester Medical Center) - Mesenchymal hamartoma
North Carolina (Mountain Area Pathology) - Mesenchymal epithelial hepatoblastoma (1); Hepatoblastoma (2); Mixed mesenchymal epithelial hepatoblastoma (1)
North Carolina (Pisgah Association of Pathology) - Hepatoblastoma
Ohio (McCullough Hyde Memorial Hospital) - Hepatoblastoma
Oklahoma, Oklahoma City - Hepatoblastoma, fetal-type

Pennsylvania (Allegheny General Hospital) - Hepatoblastoma
Pennsylvania (Conemaugh Memorial Medical Center) - Hepatoblastoma, embryonal type
Pennsylvania (Mt. Nittany Medical Center) - Mesenchymal hamartoma, liver
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Congenital hamartoma
Texas, Houston - Hepatocellular carcinoma, scirrhous type
Texas, Lubbock - Hepatoblastoma
Texas (ProPath Associates) - Hepatoblastoma (1); Hepatoblastoma predominantly epithelial type (1)
Texas, San Antonio - Hepatoblastoma
Texas (Scott & White Memorial Hospital) - Hepatoblastoma
Texas (Wilford Hall Medical Center) - Hepatoblastoma
Wisconsin (Bellin Health) - Hepatoblastoma
West Virginia (Greenbrier Valley Medical Center) - Hepatoblastoma, embryonal
Australia (North Queensland Pathology) - Mesenchymal hamartoma
Australia (Royal Prince Alfred Hospital) - Hepatoblastoma
Brazil, Sao Paulo - Hepatoblastoma, mixed/epithelial and mesenchymal type
Canada (Pasqua Hospital) - Hepatoblastoma
Germany (UKE, Kerninstitut für Pathologie) - Hepatoblastoma
Jamaica (The University of the West Indies) - Mesenchymal hamartoma
Japan (Asahi General Hospital) - Hepatoblastoma, liver
Japan (Kyoto University Hospital) - Hepatoblastoma (1); Hepatoblastoma, mixed epithelial and mesenchymal (1)
Netherlands, Amstelveen - Hepatoblastoma?
Qatar (Hamad Medical Corporation) - Hepatoblastoma

Case 3 - Diagnosis:

Hepatoblastoma, liver
 T-56000, M-89703

Case 3 - References:

Hiyama F, Yamaoka H, Matsunaga T, et al. High Expression of Telomerase is an Independent Prognostic Outcome in Hepatoblastoma. *Br J Cancer* 2004; 91(5):972-979.
 Brandt S, Heller H, Schuster KD, et al. Tamoxifen Induces Suppression of Cell Viability and Apoptosis in the Human Hepatoblastoma Cell Line HepG2 via Down-Regulation of Telomerase Activity. *Liver Int* 2004; 24(1):46-54.
 Fiegel HC, Gluer S, Roth B, et al. Stem-Like Cells in Human Hepatoblastoma. *J Histochem Cytochem* 2004; 52(11):1495-1501.
 Ruck P and Xiao JC. Stem-Like Cells in Hepatoblastoma. *Med Pediatr Oncol* 2002; 39(5):504-507.
 Perilongo G, Dall, Igna P and Sainati L. Modern Treatment of Childhood Hepatoblastoma. What Do Clinicians and Pathologists Have to Say to Each Other? *Med Pediatr Oncol* 2002; 39(5):474-477.

Case No. 4, Accession No. 29647

November 2005

Baldwin Park (Kaiser Permanente) - Adenoma (1); Hepatocellular adenoma (1); Liver cell adenoma (1)
Clovis - Unusual case, some prolif of lymphatics, liver
Fontana (Kaiser Permanente Hospital) - Hepatocellular adenoma
Fresno (St. Agnes Medical Center) - Focal nodular hyperplasia
Loma Linda (LLUMC Residents) - Budd-chiari syndrome
Long Beach - Hepatocellular adenoma (10)
Monterey Park (Monterey Peninsula Pathologists) - Hepatocellular adenoma vs. focal modular hyperplasia
Woodland Hills (Warriors) - Hepatocellular adenoma
Mountain View (El Camino Hospital) - Focal nodular hyperplasia
Ventura - Hepatocellular adenoma
Mountain View (El Camino Pathology Group) - Focal nodular hyperplasia
Oakland (Highland Hospital) - Hepatocellular adenoma
Orange (Orange County Medical Group) - Hepatic adenoma

San Diego (Naval Medical Center) - Hepatic adenoma (18); Mixed hyperplastic and adenomatous form of focal nodular hyperplasia (1)

San Francisco (San Francisco General Hospital) - Hepatic adenoma

Santa Rosa (Santa Rosa Memorial Hospital) - Liver cell adenoma (1); Hepatocellular adenoma (1); Adenoma of liver (1)

Arizona, Oro Valley - Hepatocellular adenoma

Colorado, Evergreen - Hemangioma

Florida, Tallahassee - Liver adenoma

Florida (Winter Haven Hospital) - Polycystic disease (1); Hepatic adenoma (1)

Georgia, Decatur - Hepatic adenoma

Illinois, Burr Ridge - Liver cell adenoma

Illinois (Evanston Hospital) - Hepatic adenoma

Illinois (Great Lakes Naval Hospital) - Veno-occlusive disease

Illinois (Fairview Ridges Hospital) - Focal nodular hyperplasia

Illinois (Northwestern Memorial Hospital) - Hepatic adenoma

Illinois, Oak Brook - Hepatocellular adenoma

Indiana (Ball Memorial Hospital) - Hepatic adenoma

Indiana (Kokamo Pathologist Health System) - Hepatic adenoma

Kentucky (University of Louisville Hospital) - Focal nodular hyperplasia

Louisiana (Louisiana State University Medical Center) - Hepatocellular adenoma

Maryland (National Naval Medical Center) - Hepatic adenoma

Maryland (University of Maryland) - Hepatocyte adenoma

Massachusetts (Tuft-New England Medical Center) - Focal nodular hyperplasia

Michigan (Michigan University Residents) - Liver cell adenoma

Michigan (Oakwood Hospital) - Hepatocellular adenoma

Nebraska (Creighton University School of Medicine) - Adenoma

New York (Nassau University Medical Center) - Hepatic adenoma

New York (Stony Brook University Hospital Residents) - Hepatocellular adenoma

New York (Westchester Medical Center) - Hepatic adenoma

North Carolina (Mountain Area Pathology) - Hepatic adenoma (2); Hepatocellular adenoma (2)

North Carolina (Pisgah Association of Pathology) - Liver cell adenoma

Ohio (McCullough Hyde Memorial Hospital) - Focal nodular hyperplasia

Oklahoma, Oklahoma City - Liver cell adenoma

Pennsylvania (Allegheny General Hospital) - Adenoma

Pennsylvania (Conemaugh Memorial Medical Center) - Hepatocellular adenoma

Pennsylvania (Mt. Nittany Medical Center) - Hepatic adenoma

Pennsylvania (Pennsylvania Hospital Pathology Residents) - Hepatocellular adenoma

Texas, Houston - Hepatic adenoma

Texas, Lubbock - Focal nodular hyperplasia

Texas (ProPath Associates) - Hepatic adenoma (2)

Texas, San Antonio - Focal nodular hyperplasia

Texas (Scott & White Memorial Hospital) - Hepatic adenoma

Texas (Wilford Hall Medical Center) - Liver cell adenoma

Wisconsin (Bellin Health) - Hepatocellular adenoma

West Virginia (Greenbrier Valley Medical Center) - Hepatocellular adenoma

Australia (North Queensland Pathology) - Focal nodular hyperplasia

Australia (Royal Prince Alfred Hospital) - Hepatocellular adenoma

Brazil, Sao Paulo - Liver cell adenoma

Canada (Pasqua Hospital) - Hepatic adenoma

Germany (UKE, Kerninstitut für Pathologie) - Hyperplastic nodule

Jamaica (The University of the West Indies) - Liver cell adenoma

Japan (Asahi General Hospital) - Hepatocellular adenoma, liver

Japan (Kyoto University Hospital) - Peliosis hepatis (1); Focal nodular hyperplasia (FNH)-like lesion (1)

Netherlands, Amstelveen - ? of intrahepatic bile ducts?

Case 4 - Diagnosis:

Liver cell adenoma

T-56000, M-81700

Case 4 - References:

- Paradis V, Benzekri A, Dargere D, et al. Telangiectatic Focal Nodular Hyperplasia. A Variant of Hepatocellular Adenoma. *Gastroenterol* 2004; 126(5):1323-1329.
- Skarupa DJ, Ellison EC, Vitellas KM, et al. Hepatocellular Adenomatosis is a Rare Entity that May Mimic Other Hepatocellular Lesions. *Ann Diagn Pathol* 2004; 8(1):43-49.
- Gibbs JF, Litwin AM and Kahlenberg MS. Contemporary Management of Benign Liver Tumors. *Surg Clin North Am* 2004; 84(2):463-480.
- Cobey FC and Salem RR. A Review of Liver Masses in Pregnancy and a Proposed Algorithm for their Diagnosis and Management. *Am J Surg* 2004;187(2):181-191.
- Katsuramaki T, Nagayama M, Kimura Y, et al. Hepatocellular Adenoma Presenting as a Giant Multicystic Tumor of the Liver. *J Gastroenterol* 2003; 38(5):516-518.
- Toso C, Rubbia-Brandt L, Negro F, et al. Hepatocellular Adenoma and Polycystic Ovary Syndrome. *Liver Int* 2003; 23(1):35-37.

Case No. 5, Accession No. 29824

November 2005

- Baldwin Park (Kaiser Permanente) - Metastatic hepatocellular carcinoma (3)
- Clovis - Hepatic neoplasia ? MET hepatoma, ovary
- Fontana (Kaiser Permanente Hospital) - Metastatic hepatocellular carcinoma to ovary
- Fresno (St. Agnes Medical Center) - Metastatic hepatocellular carcinoma
- Loma Linda (LLUMC Residents) - Hepatocellular carcinoma
- Long Beach - Metastatic hepatocellular carcinoma (10)
- Monterey Park (Monterey Peninsula Pathologists) - Hepatocellular carcinoma, metastatic
- Woodland Hills (Warriors) - Metastatic hepatocellular carcinoma
- Mountain View (El Camino Hospital) - Metastatic hepatocellular carcinoma
- Ventura - Hepatocellular carcinoma
- Mountain View (El Camino Pathology Group) - Metastatic hepatocellular carcinoma
- Oakland (Highland Hospital) - Metastatic hepatocellular carcinoma
- Orange (Orange County Medical Group) - Metastatic hepatocellular carcinoma
- San Diego (Naval Medical Center) - Metastatic hepatocellular carcinoma (2)
- San Francisco (San Francisco General Hospital) - Hepatoid yolk sac tumor
- Santa Rosa (Santa Rosa Memorial Hospital) - Hepatocellular carcinoma metastatic of ovary (1); Metastatic hepatocellular carcinoma (2)
- Arizona, Oro Valley - Metastatic hepatocellular carcinoma
- Colorado, Evergreen - Metastatic hepatocellular carcinoma
- Florida, Tallahassee - Hepatocellular carcinoma
- Florida (Winter Haven Hospital) - Hepatoma (1); Hepatocellular carcinoma (1)
- Georgia, Decatur - Metastatic hepatocellular carcinoma to ovary
- Illinois, Burr Ridge - Hepatocellular carcinoma
- Illinois (Evanston Hospital) - Hepatocellular carcinoma
- Illinois (Great Lakes Naval Hospital) - Metastatic hepatocellular carcinoma
- Illinois (Fairview Ridges Hospital) - Yolk sac tumor with hepatoid pattern
- Illinois (Northwestern Memorial Hospital) - Metastatic hepatocellular carcinoma
- Illinois, Oak Brook - Metastatic hepatocellular carcinoma
- Indiana (Ball Memorial Hospital) - Metastatic hepatocellular carcinoma
- Indiana (Kokomo Pathologist Health System) - Metastatic hepatocarcinoma
- Kentucky (University of Louisville Hospital) - Hepatoid carcinoma of ovary
- Louisiana (Louisiana State University Medical Center) - Hepatocellular carcinoma, metastatic to ovary
- Maryland (National Naval Medical Center) - Hepatocellular carcinoma, metastatic

Maryland (University of Maryland) - Hepatoma (hepatocellular carcinoma)
Massachusetts (Tufts-New England Medical Center) - Metastatic hepatocellular carcinoma
Michigan (Michigan University Residents) - Metastatic hepatocellular carcinoma
Michigan (Oakwood Hospital) - Metastatic hepatocellular carcinoma
Nebraska (Creighton University School of Medicine) - Metastatic hepatocellular carcinoma
New York (Nassau University Medical Center) - Hepatocellular carcinoma, metastatic
New York (Stony Brook University Hospital Residents) - Hepatoma
New York (Westchester Medical Center) - Hepatoid carcinoma of ovary vs. metastatic hepatocellular carcinoma to ovary
North Carolina (Mountain Area Pathology) - Hepatocellular carcinoma (3); Metastatic hepatocellular carcinoma (1)
North Carolina (Pisgah Association of Pathology) - Metastatic hepatocellular carcinoma
Ohio (McCullough Hyde Memorial Hospital) - Hepatocellular carcinoma
Oklahoma, Oklahoma City - Metastatic hepatocellular carcinoma
Pennsylvania (Allegheny General Hospital) - Endodermal sinus tumor consistent with hepatoid features
Pennsylvania (Conemaugh Memorial Medical Center) - Metastatic hepatocellular carcinoma
Pennsylvania (Mt. Nittany Medical Center) - Metastatic hepatocellular carcinoma, ovary
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Metastatic hepatocellular carcinoma
Texas, Houston - Hepatocellular carcinoma
Texas, Lubbock - Hepatoid carcinoma
Texas (ProPath Associates) - Metastatic hepatocellular carcinoma (2)
Texas, San Antonio - Metastatic hepatocellular carcinoma/DDx: Hepatoid yolk sac tumor
Texas (Scott & White Memorial Hospital) - Metastatic hepatocellular carcinoma
Texas (Wilford Hall Medical Center) - Metastatic hepatocellular carcinoma
Wisconsin (Bellin Health) - Hepatocellular carcinoma
West Virginia (Greenbrier Valley Medical Center) - Metastatic hepatocellular carcinoma
Australia (North Queensland Pathology) - Hepatocellular carcinoma
Australia (Royal Prince Alfred Hospital) - Metastatic hepatocellular carcinoma
Brazil, Sao Paulo - Metastatic hepatocellular carcinoma
Canada (Pasqua Hospital) - Hepatoid carcinoma
Germany (UKE, Kerninstitut für Pathologie) - Hepatocellular carcinoma (metastases)
Jamaica (The University of the West Indies) - Hepatocellular carcinoma
Japan (Asahi General Hospital) - Hepatocellular carcinoma, metastatic to right ovary
Japan (Kyoto University Hospital) - Hepatoid carcinoma (1); Hepatocellular carcinoma, metastatic, rule out HCC arising in ovarian teratoma (1)
Netherlands, Amstelveen - Metastatic hepatocellular carcinoma
Qatar (Hamad Medical Corporation) - Metastatic hepatocellular carcinoma

Case 5 - Diagnosis:

Metastatic hepatocellular carcinoma, ovary
 T-87000, M-81703

Case 5 - References:

Ho LM, Thomas J, Fine SA, et al. Usefulness of Sonographic Guidance During Percutaneous Biopsy of Mesenteric Masses. *AJR Am J Roentgenol* 2003; 180(6):1563-1566.
 Spencer JA, Swift SE, Wilkinson N, et al. Peritoneal Carcinomatosis. Image-Guided Peritoneal Core Biopsy for Tumor Type and Patient Care. *Radiol* 2001; 221(1):173-177.
 Kumar S and Shafi NQ. Metastatic Hepatocellular Carcinoma. *Clin Oncol* 2003; 15(5):288-294.
 Hirohashi K, Yamamoto T, Uenishi T, et al. CD44 and VEGF Expression in Extrahapatic Metastasis of Human Hepatocellular Carcinoma. *Hepato-gastroenterology* 2004; 51(58):1121-1123.
 Suriawinata A and Xu R. An Update on the Molecular Genetics of Hepatocellular Carcinoma. *Semin Liver Dis* 2004; 24(1):77-88.

- Baldwin Park (Kaiser Permanente) - Microcystic adenoma (1); Serous microcystic adenoma (1); Microcystic adenoma/aka serous cystadenoma
- Clovis - Pancreas, serous cystadenoma
- Fontana (Kaiser Permanente Hospital) - Serous microcystadenoma
- Fresno (St. Agnes Medical Center) - Microcystic cystadenoma
- Loma Linda (LLUMC Residents) - Serous cystadenoma
- Long Beach - Serous microcystic adenoma (10)
- Monterey Park (Monterey Peninsula Pathologists) - Serous cystadenoma
- Woodland Hills (Warriors) - Microcystic adenoma (serous cystadenoma)
- Mountain View (El Camino Hospital) - Serous cystadenoma
- Ventura - Serous microcystic adenoma
- Mountain View (El Camino Pathology Group) - Serous cystadenoma
- Oakland (Highland Hospital) - Serous microcystic adenoma
- Orange (Orange County Medical Group) - Microcystic adenoma
- San Diego (Naval Medical Center) - Serous microcystic adenoma (2)
- San Francisco (San Francisco General Hospital) - Serous oligocystic adenoma
- Santa Rosa (Santa Rosa Memorial Hospital) - Serous microcystic adenoma (1); Metastatic hepatocellular carcinoma (1); Metastatic hepatoma to ovary (1)
- Arizona, Oro Valley - Microcystic cystadenoma
- Colorado, Evergreen - Serous microcystic cystadenoma
- Florida, Tallahassee - Microcystic cystadenoma
- Florida (Winter Haven Hospital) - Cystadenoma (1); Microcystic adenoma (1)
- Georgia, Decatur - Serous microcystic adenoma
- Illinois, Burr Ridge - Microcystic serous cystadenoma
- Illinois (Evanston Hospital) - Microcystic serous adenoma
- Illinois (Great Lakes Naval Hospital) - Serous cystadenoma
- Illinois (Fairview Ridges Hospital) - Serous microcystic cystadenoma
- Illinois (Northwestern Memorial Hospital) - Microcystic adenoma
- Illinois, Oak Brook - Microcystic adenoma
- Indiana (Ball Memorial Hospital) - Serous microcystic adenoma
- Indiana (Kokomo Pathologist Health System) - Microcystic adenoma of pancreas
- Kentucky (University of Louisville Hospital) - Microcystic adenoma
- Louisiana (Louisiana State University Medical Center) - Serous cystadenoma
- Maryland (National Naval Medical Center) - Microcystic serous cystadenoma
- Maryland (University of Maryland) - Serous cystadenoma
- Massachusetts (Tufts-New England Medical Center) - Serous cyst adenoma
- Michigan (Michigan University Residents) - Microcystic adenoma
- Michigan (Oakwood Hospital) - Serous microcystic adenoma
- Nebraska (Creighton University School of Medicine) - Serous cystadenoma
- New York (Nassau University Medical Center) - Serous cystadenoma, multilocular
- New York (Stony Brook University Hospital Residents) - Serous cystic neoplasm of pancreas
- New York (Westchester Medical Center) - Microcystic cystadenoma of pancreas
- North Carolina (Mountain Area Pathology) - Serous cystadenoma (2); Microcystic serous cystadenoma (2)
- North Carolina (Pisgah Association of Pathology) - Microcystic serous adenoma
- Ohio (McCullough Hyde Memorial Hospital) - Lymphangioma
- Oklahoma, Oklahoma City - Microcystic cystadenoma (serous cystadenoma)
- Pennsylvania (Allegheny General Hospital) - Multicystic serous cyst adenoma
- Pennsylvania (Conemaugh Memorial Medical Center) - Serous cystadenoma
- Pennsylvania (Mt. Nittany Medical Center) - Microcystic serous cystadenoma, pancreas

Pennsylvania (Pennsylvania Hospital Pathology Residents) - Serous microcystic adenoma
Texas, Houston - Microcystic serous cystadenoma
Texas, Lubbock - Serous cystadenoma
Texas (ProPath Associates) - Serous cystadenoma of pancreas (1); Serous cystadenoma microcystic adenoma of pancreas (1)
Texas, San Antonio - Serous microcystic cystadenoma
Texas (Scott & White Memorial Hospital) - Microcystic serous cystadenoma
Texas (Wilford Hall Medical Center) - Serous microcystic adenoma
Wisconsin (Bellin Health) - Serous cystadenoma
West Virginia (Greenbrier Valley Medical Center) - Microcystic adenoma
Australia (North Queensland Pathology) - Microcystic serous cystadenoma
Australia (Royal Prince Alfred Hospital) - Serous cystadenoma, pancreas
Brazil, Sao Paulo - Serous microcystic cystadenoma
Canada (Pasqua Hospital) - Microcystic adenoma
Germany (UKE, Kerninstitut für Pathologie) - Serous cystadenoma
Jamaica (The University of the West Indies) - Serous microcystic cystadenoma
Japan (Asahi General Hospital) - Serous microcystic adenoma, pancreas
Japan (Kyoto University Hospital) - Serous cystadenoma (2)
Netherlands, Amstelveen - Microcystic serous cystadenoma of the pancreas
Qatar (Hamad Medical Corporation) - Serous microcystic cyst adenoma

Case 6 - Diagnosis:

Serous microcystic adenoma, pancreas
 T-59000, M-81400

Case 6 - References:

Kosmahl M, Wagner J, Peters K, et al. Serous Cystic Neoplasms of the Pancreas. An Immunohistochemical Analysis Revealing Alpha-Inhibin, Neuron-Specific Enolase, and MUC6 as New Markers. *Am J Surg Pathol* 2004; 28(3): 339-346.
 Chetty R and Asa SL. Ductules in Pancreatic Neuroendocrine Tumors. *Am J Surg Pathol* 2004; 28(3):417.
 Su CH, Shyr YM, Lui WY, et al. Surgical Treatment for Serous Cystadenoma of Pancreas—Segmental Pancreatectomy or Conventional Resection? *Hepatogastroenterology* 2004; 51(56):595-598.
 Chan C, Podgaetz E, Torres-Villalobos G, et al. Central Pancreatectomy as an Indication for Various Benign Pancreatic Tumors. *Am Surg* 2004; 70(4):304-306.

Case No. 7, Accession No. 29174

November 2005

Baldwin Park (Kaiser Permanente) - Islet cell tumor (neuroendocrine carcinoma) (1); Neuroendocrine tumor (1); Islet cell tumor (neuroendocrine carcinoma) (1)
Clovis - Neuroendocrine carcinoma, pancreas
Fontana (Kaiser Permanente Hospital) - Pancreatic endocrine tumor (islet cell tumor)
Fresno (St. Agnes Medical Center) - Pancreatic endocrine tumor
Loma Linda (LLUMC Residents) - Pancreatic endocrine neoplasm (favor islet cell tumor)
Long Beach - Neuroendocrine carcinoma (10)
Monterey Park (Monterey Peninsula Pathologists) - Pancreatic endocrine tumor
Woodland Hills (Warriors) - Pancreatic endocrine neoplasm/microscopic microcystic adenoma (serous cystadenoma)
Mountain View (El Camino Hospital) - Pancreatic endocrine neoplasm
Ventura - Endocrine carcinoma
Mountain View (El Camino Pathology Group) - Pancreatic endocrine neoplasm
Oakland (Highland Hospital) - Pancreatic endocrine carcinoma
Orange (Orange County Medical Group) - Islet cell tumor
San Diego (Naval Medical Center) - Pancreatic endocrine neoplasm (2)
San Francisco (San Francisco General Hospital) - Neuroendocrine carcinoma
Santa Rosa (Santa Rosa Memorial Hospital) - Pancreatic endocrine carcinoma related to Von Hippel-Lindau syndrome (1); Pancreatic islet cell neoplasm (1); Endocrine tumor of pancreas (1)

Arizona, Oro Valley - Pancreatic endocrine neoplasm
Colorado, Evergreen - Islet cell tumor
Florida, Tallahassee - Pancreatic endocrine tumor
Florida (Winter Haven Hospital) - Islet cell tumor (2)
Georgia, Decatur - Pancreatic endocrine tumor
Illinois, Burr Ridge - Pancreatic endocrine neoplasm
Illinois (Evanston Hospital) - Pancreatic endocrine tumor
Illinois (Great Lakes Naval Hospital) - Pancreatic endocrine carcinoma
Illinois (Fairview Ridges Hospital) - Pancreatic endocrine tumor, serous cystadenoma-like associated with VHL
Illinois (Northwestern Memorial Hospital) - Islet cell tumor and microcystic adenoma
Illinois, Oak Brook - Endocrine pancreatic neoplasm
Indiana (Ball Memorial Hospital) - Neuroendocrine carcinoma
Indiana (Kokomo Pathologist Health System) - Clear cell endocrine pancreatic tumor
Kentucky (University of Louisville Hospital) - Neuroendocrine carcinoma, grade 3
Louisiana (Louisiana State University Medical Center) - Neuroendocrine carcinoma
Maryland (National Naval Medical Center) - Islet cell tumor
Maryland (University of Maryland) - Neuroendocrine/islet cell tumor
Massachusetts (Tufts-New England Medical Center) - Pancreatic neuroendocrine tumor
Michigan (Michigan University Residents) - Pancreatic neuroendocrine neoplasm
Michigan (Oakwood Hospital) - Pancreatic endocrine tumor
Nebraska (Creighton University School of Medicine) - Neuroendocrine neoplasm, grade 2
New York (Nassau University Medical Center) - Neuroendocrine tumor
New York (Stony Brook University Hospital Residents) - Endocrine cell-like tumor
New York (Westchester Medical Center) - Islet cell tumor of pancreas
North Carolina (Mountain Area Pathology) - Pancreatic endocrine neoplasm (4)
North Carolina (Pisgah Association of Pathology) - Pancreatic endocrine neoplasm
Ohio (McCullough Hyde Memorial Hospital) - Islet cell tumor/carcinoma
Oklahoma, Oklahoma City - Pancreatic endocrine tumor, carcinoid type
Pennsylvania (Allegheny General Hospital) - Well-differentiated neuroendocrine tumor
Pennsylvania (Conemaugh Memorial Medical Center) - Neuroendocrine tumor
Pennsylvania (Mt. Nittany Medical Center) - Pancreatic endocrine neoplasm
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Neuroendocrine tumor
Texas, Houston - Carcinoid tumor
Texas, Lubbock - Islet cell tumor
Texas (ProPath Associates) - Well-differentiated neuroendocrine tumor of pancreas (2)
Texas, San Antonio - Pancreatic endocrine neoplasm
Texas (Scott & White Memorial Hospital) - Pancreatic neuroendocrine tumor
Texas (Wilford Hall Medical Center) - Pancreatic endocrine tumor
Wisconsin (Bellin Health) - Neuroendocrine carcinoma (islet cell tumor)
West Virginia (Greenbrier Valley Medical Center) - Well-differentiated pancreatic endocrine carcinoma
Australia (North Queensland Pathology) - Pancreatic endocrine tumor
Australia (Royal Prince Alfred Hospital) - Pancreatic endocrine neoplasm
Brazil, Sao Paulo - Endocrine neoplasm associated with serous ? cystadenoma
Canada (Pasqua Hospital) - Islet cell tumor
Germany (UKE, Kerninstitut fur Pathologie) - Neuroendocrine carcinoma
Jamaica (The University of the West Indies) - Pancreatic endocrine neoplasm
Japan (Asahi General Hospital) - Pancreatic endocrine tumor
Japan (Kyoto University Hospital) - Pancreatic neuroendocrine tumor (1); Endocrine tumor, malignant (1)
Netherlands, Amstelveen - Well-differentiated pancreatic endocrine neoplasm/carcinoid
Qatar (Hamad Medical Corporation) - Pancreatic endocrine neoplasm

Case 7 - Diagnosis:

Pancreatic endocrine tumor, pancreas
T-59000, D-2380

Case 7 - References:

- Hoang MP, Hruban RH and Albores-Saavedra J. Clear Cell Endocrine Pancreatic Tumor Mimicking Renal Cell Carcinoma. A Distinctive Neoplasm of von Hippel-Lindau Disease. *Am J Surg Pathol* 2001; 25(5):602-609.
- Johnson PR and Spitz L. Cysts and Tumors of the Pancreas. *Semin Pediatr Surg* 2000; 9(4):209-215.
- Ustun MO, Tugyan N and Tunakan M. Coexistence of an Endocrine Tumour in a Serous Cystadenoma (Microcystic Adenoma) of the Pancreas, An Unusual Association. *J Clin Pathol* 2000 53(10):800-802.
- Keel SB, Zuckerberg L, Graeme-Cook F, et al. A Pancreatic Endocrine Tumor Arising Within a Serous Cystadenoma of the Pancreas. *Am J Surg Pathol* 1996; 20(4):471-475.
- Hammel P, Beigelman C, Chauveau D, et al. Variety of Pancreatic Lesions Observed in von Hippel-Lindau Disease. Apropos of 8 Cases. *Gastroenterol Clin Biol* 1995; 19(12):1011-1017.
- Hough DM, Stephens DH, Johnson CD, et al. Pancreatic Lesions in Von Hippel-Lindau Disease. Prevalence, Clinical Significance, and CT Findings. *AJR Am J Roentgenol* 1994; 162(5):1091-1094.

Case No. 8, Accession No. 30043

November 2005

Baldwin Park (Kaiser Permanente) - Poorly-differentiated "signet ring" carcinoma vs. metastatic lobular (breast) carcinoma (1); Invasive poorly-differentiated adenocarcinoma (signet ring) vs. metastatic lobular carcinoma (1); Signet cell carcinoma (1^o vs. metastatic lobular carcinoma (1)

Clovis - Signet ring carcinoma, stomach

Fontana (Kaiser Permanente Hospital) - Signet ring cell carcinoma

Fresno (St. Agnes Medical Center) - Adenocarcinoma, linitis plastica type

Loma Linda (LLUMC Residents) - Poorly differentiated carcinoma

Long Beach - Poorly differentiated adenocarcinoma (linitis plastica) (10)

Monterey Park (Monterey Peninsula Pathologists) - Adenocarcinoma, gastric vs. lobular ? primary

Woodland Hills (Warriors) - Signet ring cell carcinoma

Mountain View (El Camino Hospital) - Poorly differentiated adenocarcinoma, diffuse type

Ventura - Poorly differentiated gastric carcinoma

Mountain View (El Camino Pathology Group) - Poorly differentiated adenocarcinoma, diffuse type

Oakland (Highland Hospital) - Signet-ring cell carcinoma

Orange (Orange County Medical Group) - Adenocarcinoma, diffuse type

San Diego (Naval Medical Center) - Poorly differentiated carcinoma (1); Gastric signet ring carcinoma (1)

San Francisco (San Francisco General Hospital) - Adenocarcinoma with signet ring cell features

Santa Rosa (Santa Rosa Memorial Hospital) - Infiltrating gastric adenocarcinoma (linitis plastica) (1); Gastric adenocarcinoma, diffuse (linitis plastica type) (1); Poorly differentiated diffuse carcinoma

Arizona, Oro Valley - Diffuse (signet ring) gastric adenocarcinoma

Colorado, Evergreen - Signet ring adenocarcinoma

Florida, Tallahassee - Linitis plastica, adenocarcinoma, diffuse

Florida (Winter Haven Hospital) - Signet cell adenocarcinoma (1); Poorly differentiated adenocarcinoma (1)

Georgia, Decatur - Gastric signet ring cell adenocarcinoma

Illinois, Burr Ridge - Gastric carcinoma, diffuse type

Illinois (Evanston Hospital) - Signet ring cells adenocarcinoma

Illinois (Great Lakes Naval Hospital) - Diffuse adenocarcinoma

Illinois (Fairview Ridges Hospital) - Adenocarcinoma, diffuse type, with transmural invasion

Illinois (Northwestern Memorial Hospital) - Metastatic lobular carcinoma pending stains

Illinois, Oak Brook - Diffuse adenocarcinoma

Indiana (Ball Memorial Hospital) - Signet ring adenocarcinoma

Indiana (Kokomo Pathologist Health System) - Neurofibroma

Kentucky (University of Louisville Hospital) - Diffuse adenocarcinoma (linitis plastica)

Louisiana (Louisiana State University Medical Center) - Poorly differentiated adenocarcinoma (linitis plastica)

Maryland (National Naval Medical Center) - Gastric adenocarcinoma, diffuse type

Maryland (University of Maryland) - Signet ring cell adenocarcinoma

Massachusetts (Tufts-New England Medical Center) - Poorly differentiated carcinoma/signet ring variant

Michigan (Michigan University Residents) - Gastric carcinoma

Michigan (Oakwood Hospital) - Gastric carcinoma, diffuse type

Nebraska (Creighton University School of Medicine) - Poorly differentiated signet ring gastric carcinoma

New York (Nassau University Medical Center) - Diffuse poorly differentiated adenocarcinoma

New York (Stony Brook University Hospital Residents) - Diffuse signet ring cell carcinoma

New York (Westchester Medical Center) - Gastric carcinoma, signet ring type

North Carolina (Mountain Area Pathology) - Poorly differentiated signet ring cell carcinoma (1); Diffuse Signet ring adenocarcinoma (1); Signet ring cell carcinoma (2)

North Carolina (Pisgah Association of Pathology) - Signet ring cell adenocarcinoma

Ohio (McCullough Hyde Memorial Hospital) - Diffuse gastric adenocarcinoma

Oklahoma, Oklahoma City - Gastric adenocarcinoma, diffuse type (linitis plastica)

Pennsylvania (Allegheny General Hospital) - Signet ring carcinoma

Pennsylvania (Conemaugh Memorial Medical Center) - Poorly differentiated adenocarcinoma with signet ring feature

Pennsylvania (Mt. Nittany Medical Center) - Signet ring cell carcinoma, stomach

Pennsylvania (Pennsylvania Hospital Pathology Residents) - Diffuse adenocarcinoma

Texas, Houston - Diffuse carcinoma (adenocarcinoma)

Texas, Lubbock - Signet ring cell carcinoma

Texas (ProPath Associates) - Infiltrating adenocarcinoma of stomach, linitis plastica type (2)

Texas, San Antonio - Adenocarcinoma, diffuse type (signet ring carcinoma)

Texas (Scott & White Memorial Hospital) - Signet ring cell adenocarcinoma (linitis plastica)

Texas (Wilford Hall Medical Center) - Adenocarcinoma, diffuse type (signet ring type)

Wisconsin (Bellin Health) - Signet ring cell carcinoma

West Virginia (Greenbrier Valley Medical Center) - Gastric infiltrating adenocarcinoma (linitis plastica)

Australia (North Queensland Pathology) - Poorly differentiated gastric adenocarcinoma

Australia (Royal Prince Alfred Hospital) - Adenocarcinoma diffuse type

Brazil, Sao Paulo - Gastric carcinoma diffuse type "linitis plastica"

Canada (Pasqua Hospital) - Diffuse (signet ring) carcinoma

Germany (UKE, Kerninstitut für Pathologie) - Poorly differentiated carcinoma (signet ring)

Jamaica (The University of the West Indies) - Gastric gastrointestinal stromal cell tumor, spindle cell type

Japan (Asahi General Hospital) - Linitis plastica, stomach

Japan (Kyoto University Hospital) - Signet-ring cell carcinoma (1); Undifferentiated carcinoma (scirrhous carcinoma, linitis plastica type carcinoma)

Netherlands, Amstelveen - Diffuse undifferentiated adenocarcinoma

Qatar (Hamad Medical Corporation) - Poorly differentiated gastric adenocarcinoma of diffuse type

Case 8 - Diagnosis:

Diffuse poorly differentiated signet ring adenocarcinoma (linitis plastica type), stomach
T-63000, M-81403

Case 8 – References:

- Ming SC. Cellular and Molecular Pathology of Gastric Carcinoma and Precursor Lesions. A Critical Review. *Gastric Cancer* 1998; 1(1):31-50.
- Tahara E. Genetic Pathways of Two Types of Gastric Cancer. *IARC Sci Publ* 2004; 157:327-349.
- Tahara E. Molecular Biology of Gastric Cancer. *World J Surg* 1995; 19(4):484-488.
- Kodera Y, Nakanishi H, Ito S, et al. Detection of Disseminated Cancer Cells In Linitis Plastica-Type Gastric Carcinoma. *Jpn J Clin Oncol* 2004; 34(9):525-531.
- Wheeler JM, Warren BF, Sica G, et al. Gastrointestinal Stromal Tumour (GIST) Masquerading as Linitis Plastica. *Histopathol* 2004; 44(1):88-90.
- Moles JR, Prima J, Hinojosa J, et al. Plastic Linitis as a Manifestation of Metastases from Breast Cancer. *Gastroenterol Hepatol* 2002; 25(9):549-551.

Baldwin Park (Kaiser Permanente) - Carcinoid (1); Neuroendocrine carcinoma (carcinoid carcinoma) (1); Carcinoid, malignant (1)
Clovis - Carcinoid tumor/transformation to high grade carcinoma
Fontana (Kaiser Permanente Hospital) - Adenocarcinoid tumor
Fresno (St. Agnes Medical Center) - Goblet cell carcinoid
Loma Linda (LLUMC Residents) - Adenocarcinoid (goblet cell carcinoid)
Long Beach - Adenocarcinoid (10)
Monterey Park (Monterey Peninsula Pathologists) - Carcinoid
Woodland Hills (Warriors) - Composite tumor--adenocarcinoid
Mountain View (El Camino Hospital) - Mixed carcinoid--adenocarcinoma
Ventura - Appendiceal goblet cell carcinoid
Mountain View (El Camino Pathology Group) - Mixed carcinoid--adenocarcinoma
Oakland (Highland Hospital) - Carcinoid tumor
Orange (Orange County Medical Group) - Carcinoid
San Diego (Naval Medical Center) - Goblet-cell carcinoid (2)
San Francisco (San Francisco General Hospital) - Mixed adenocarcinoid
Santa Rosa (Santa Rosa Memorial Hospital) - Carcinoid tumor (1); Signet ring cell adenocarcinoma (1); Signet ring cell carcinoma (1)
Arizona, Oro Valley - Mixed adenocarcinoma/carcinoid ? goblet cell carcinoid
Colorado, Evergreen - Adenocarcinoid
Florida, Tallahassee - Carcinoid
Florida (Winter Haven Hospital) - Goblet cell adenocarcinoid tumor (2)
Georgia, Decatur - Tubular carcinoid
Illinois, Burr Ridge - Carcinoid tumor
Illinois (Evanston Hospital) - Adenocarcinoma
Illinois (Great Lakes Naval Hospital) - Mixed carcinoid--adenocarcinoma
Illinois (Fairview Ridges Hospital) - Goblet cell carcinoid
Illinois (Northwestern Memorial Hospital) - Carcinoid tumor with extension out of surface
Illinois, Oak Brook - Malignant carcinoid
Indiana (Ball Memorial Hospital) - Well-differentiated neuroendocrine carcinoma
Indiana (Kokamo Pathologist Health System) - Carcinoid
Kentucky (University of Louisville Hospital) - Neuroendocrine carcinoma, grade I
Louisiana (Louisiana State University Medical Center) - Carcinoid with perineural invasion
Maryland (National Naval Medical Center) - Atypical neuroendocrine neoplasm
Maryland (University of Maryland) - Carcinoid
Massachusetts (Tufts-New England Medical Center) - Goblet cell carcinoid
Michigan (Michigan University Residents) - Malignant carcinoid
Michigan (Oakwood Hospital) - Goblet cell carcinoid tumor
Nebraska (Creighton University School of Medicine) - Goblet cell carcinoid tumor
New York (Nassau University Medical Center) - Adenocarcinoid tumor
New York (Stony Brook University Hospital Residents) - Carcinoid
New York (Westchester Medical Center) - Adenocarcinoid of appendix
North Carolina (Mountain Area Pathology) - Composite carcinoid tumor/poorly differentiated adenocarcinoma (2); Carcinoid tumor (2)
North Carolina (Pisgah Association of Pathology) - Goblet cell carcinoid tumor
Ohio (McCullough Hyde Memorial Hospital) - Carcinoid
Oklahoma, Oklahoma City - Carcinoid tumor
Pennsylvania (Allegheny General Hospital) - Adenocarcinoid
Pennsylvania (Conemaugh Memorial Medical Center) - Adenocarcinoid
Pennsylvania (Mt. Nittany Medical Center) - Well-differentiated neuroendocrine carcinoma (neuroendocrine tumor of low-grade malignancy)
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Carcinoid

Texas, Houston - Carcinoid tumor
Texas, Lubbock - Adenocarcinoid
Texas (ProPath Associates) - Carcinoid tumor, appendix (1); Adenocarcinoid, rule out neuroendocrine component (1)
Texas, San Antonio - Goblet cell carcinoid vs. mixed carcinoid/adenocarcinoma
Texas (Scott & White Memorial Hospital) - Carcinoid tumor
Texas (Wilford Hall Medical Center) - Mixed carcinoid—adenocarcinoma vs. goblet cell carcinoid
Wisconsin (Bellin Health) - Low grade neuroendocrine tumor
West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma, carcinoid type
Australia (North Queensland Pathology) - Goblet cell carcinoid
Australia (Royal Prince Alfred Hospital) - Neuroendocrine carcinoma (carcinoid)
Brazil, Sao Paulo - Goblet cell carcinoid tumor
Canada (Pasqua Hospital) - Tubular carcinoid
Germany (UKE, Kerninstitut für Pathologie) - Carcinoid
Jamaica (The University of the West Indies) - Neuroendocrine tumor (carcinoid) acinar variant
Japan (Asahi General Hospital) - Tubular carcinoid, appendix vermiform
Japan (Kyoto University Hospital) - Goblet cell carcinoid (1); Endocrine tumor (tubular carcinoid) (1)
Netherlands, Amstelveen - Carcinoid
Qatar (Hamad Medical Corporation) - Carcinoid tumor of appendix

Case 9 - Diagnosis:

Goblet cell carcinoid tumor, appendix
 T-66000, M-68950

Case 9 – References:

Lin B and Gown AM. Mixed Carcinoid and Adenocarcinoma of the Appendix. Report of Four Cases with Immunohistochemical Studies and A Review of the Literature. *Appl Immunohistochem Mol Morphol* 2004; 12(3):271-276.
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Case No. 10, Accession No. 29841

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Baldwin Park (Kaiser Permanente) - Gastrointestinal stromal tumor, epithelioid
Clovis - Gastrointestinal stromal tumor, stomach
Fontana (Kaiser Permanente Hospital) - Gastrointestinal stromal tumor, malignant
Fresno (St. Agnes Medical Center) - Epithelioid gastrointestinal stromal tumor
Loma Linda (LLUMC Residents) - Gastrointestinal stromal tumor (GIST)
Long Beach - Malignant gastrointestinal stromal tumor (10)
Monterey Park (Monterey Peninsula Pathologists) - Gastrointestinal stromal tumor
Woodland Hills (Warriors) - Gastrointestinal stromal tumor, malignant
Mountain View (El Camino Hospital) - Gastrointestinal stromal tumor, malignant
Ventura - Gastric stromal tumor
Mountain View (El Camino Pathology Group) - Gastrointestinal stromal tumor, malignant
Oakland (Highland Hospital) - Gastrointestinal stromal tumor
Orange (Orange County Medical Group) - Gastrointestinal stromal tumor
San Diego (Naval Medical Center) - Malignant epithelioid gastrointestinal stromal tumor (1); Epithelioid gastrointestinal stromal tumor of uncertain malignant potential (1)
San Francisco (San Francisco General Hospital) - Fetal hepatoblastoma
Santa Rosa (Santa Rosa Memorial Hospital) - Epithelioid gastrointestinal stromal tumor (GIST), malignant (1); Epithelioid gastrointestinal stromal tumor (so-called "leiomyoblastoma") (1); Gastrointestinal tumor (GIST) (1)

Arizona, Oro Valley - Gastrointestinal stromal tumor, epithelioid type
Colorado, Evergreen - Gastrointestinal stromal tumor
Florida, Tallahassee - Gastrointestinal stromal tumor
Florida (Winter Haven Hospital) - Gastrointestinal stromal tumor (2)
Georgia, Decatur - Gastrointestinal stromal tumor
Illinois, Burr Ridge - Malignant epithelioid gastric stromal tumor
Illinois (Evanston Hospital) - Epithelioid gastrointestinal stromal tumor
Illinois (Great Lakes Naval Hospital) - Gastrointestinal stromal tumor, high risk of malignancy
Illinois (Fairview Ridges Hospital) - Gastrointestinal stromal tumor, epithelioid type, high-risk
Illinois (Northwestern Memorial Hospital) - Epithelioid gastrointestinal stromal tumor (GIST)
Illinois, Oak Brook - Gastrointestinal stromal tumor
Indiana (Ball Memorial Hospital) - Malignant gastrointestinal stromal tumor
Indiana (Kokomo Pathologist Health System) - Gastrointestinal stromal tumor
Kentucky (University of Louisville Hospital) - Malignant gastrointestinal stromal tumor
Louisiana (Louisiana State University Medical Center) - Epithelioid gastrointestinal stromal tumor
Maryland (National Naval Medical Center) - Gastrointestinal stromal tumor
Maryland (University of Maryland) - Gastrointestinal stromal tumor
Massachusetts (Tufts-New England Medical Center) - Malignant gastrointestinal stromal tumor
Michigan (Michigan University Residents) - Malignant gastrointestinal stromal tumor
Michigan (Oakwood Hospital) - Gastrointestinal stromal tumor, epithelioid variant, favor malignant
Nebraska (Creighton University School of Medicine) - Gastrointestinal stromal tumor
New York (Nassau University Medical Center) - Gastrointestinal stromal tumor
New York (Stony Brook University Hospital Residents) - Gastrointestinal stromal tumor
New York (Westchester Medical Center) - Malignant gastrointestinal stromal tumor
North Carolina (Mountain Area Pathology) - Epithelioid gastrointestinal stromal tumor (2); Gastrointestinal stromal tumor (2)
North Carolina (Pisgah Association of Pathology) - Gastrointestinal stroma tumor (GIST), probably malignant
Ohio (McCullough Hyde Memorial Hospital) - Gastrointestinal stromal tumor
Oklahoma, Oklahoma City - Gastrointestinal stromal tumor
Pennsylvania (Allegheny General Hospital) - Gastrointestinal stromal tumor
Pennsylvania (Conemaugh Memorial Medical Center) - Gastrointestinal stromal tumor
Pennsylvania (Mt. Nittany Medical Center) - Gastrointestinal stromal tumor, high risk, stomach
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Epithelioid gastrointestinal stromal tumor
Texas, Houston - Malignant epithelial gastric stromal tumor
Texas, Lubbock - Gastrointestinal stromal tumor
Texas (ProPath Associates) - Gastrointestinal stromal tumor (2)
Texas, San Antonio - Malignant epithelioid GIST (GI stromal sarcoma)
Texas (Scott & White Memorial Hospital) - Epithelioid gastrointestinal stromal tumor
Texas (Wilford Hall Medical Center) - Gastrointestinal stromal tumor, malignant
Wisconsin (Bellin Health) - Gastrointestinal stromal tumor, epithelioid type
West Virginia (Greenbrier Valley Medical Center) - Gastrointestinal stromal tumor
Australia (North Queensland Pathology) - Gastrointestinal stromal tumor
Australia (Royal Prince Alfred Hospital) - Epithelioid gastrointestinal stromal tumor
Brazil, Sao Paulo - Gastrointestinal stromal tumor, epithelioid type
Canada (Pasqua Hospital) - Gastrointestinal stromal tumor
Germany (UKE, Kerninstitut für Pathologie) - Gastrointestinal stromal tumor
Jamaica (The University of the West Indies) - Gastric gastrointestinal stromal cell tumor, epithelioid type
Japan (Asahi General Hospital) - Epithelioid gastrointestinal stromal tumor, stomach
Japan (Kyoto University Hospital) - Gastrointestinal stromal tumor (2)
Netherlands, Amstelveen - Gastrointestinal stromal tumor
Qatar (Hamad Medical Corporation) - Gastrointestinal stromal tumor with epithelioid features favor malignant

Case 10 - Diagnosis:

Gastrointestinal stromal tumor, stomach
T-63000, M-80001

Case 10 - References:

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