

**California Tumor Tissue Registry's
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"Gastrointestinal Tumors and Tumor-like Conditions"

Case 1:

A 46 y/o woman with a 2 cm broad-based mass in the 1st portion of the duodenum had been followed for more than 3 years. After gradually increased in size, the tumor was excised. The contributors had an intradepartmental disagreement: One pathologist thought it to be an adenomatous polyp, while another thought it was "hyperplastic polyp with features of Peutz-Jegher polyp".

Santa Barbara (Miramonte Laboratory) - Peutz-Jegher polyp
Santa Rosa (Santa Rosa Memorial Hospital) - Peutz-Jegher polyp (3)
Woodland Hills (Kaiser Permanente) - Gastric heterotopia
Arkansas (The Lab of Path, PA) - Peutz Jegher polyp
Georgia, Atlanta - Hamartomatous (Peutz-Jegher) polyp
Kansas (Peterson Laboratory Service) - Hamartomatous polyp
Maryland, Baltimore - Gastric heterotopia with prolapse
Michigan (Wayne State University) -
New Mexico, Albuquerque - Hyperplastic polyp of gastric heterotopia
Texas, Victoria - Hyperplastic polyp with P-J features
Canada (University of Sherbrooke) - Hamartoma
Hong Kong (Hong Kong Baptist Hospital) - Peutz-Jegher polyp
India, Kochi - Hamartoma of stomach

Dx: Hamartoma, stomach/first portion of duodenum

Pyloric Brunner's gland hamartoma.
Gastrointest Endosc 2004 Jan;59(1): p76
Jeong YS; Chung JP; Lee DY; Ji SW; Lee SJ; Lee KS; Lee SI; Park C

Brunner gland hamartoma with predominant adipose tissue and ciliated cysts.
Arch Pathol Lab Med 2002 Jun;126(6): p734-5
Chatelain D; Maillet E; Boyer L; Checkouri G; Mourra N; Flejou JF

Morphologic characterization of syndromic gastric polyps.
Am J Surg Pathol 2010 Nov;34(11): p1656-62
Lam-Himlin D; Park JY; Cornish TC; Shi C; Montgomery E

Gastric hamartomatous polyposis, Cowden syndrome, and H. pylori.
Am J Med 2004 May 1;116(9): p642-4
Isomoto H; Urata M; Mizuta Y; Kohno S; Sawada T; Okada T

Gastric polyps in pediatrics: an 18-year hospital-based analysis.
Am J Gastroenterol 2002 Feb;97(2): p298-301
Attard TM; Yardley JH; Cuffari C

Case 2

A 50 y/o obese woman presented with a two year history of crampy abdominal pain, diarrhea, occasional decreased bowel movements and occasional clot-like blood per rectum. She denied any nausea or vomiting. Barium enema studies showed a filling defect in the distal sigmoid colon which was felt to be an extraluminal process. Colonoscopy showed a 5.0 cm diameter mass at 15.0 cm, producing severe luminal narrowing. A low anterior colon resection was performed. The 14 cm long colon segment had a 5.0 cm area where the mucosa was thickened and distorted. The wall was up to 2 cm thick and indurated.

Santa Barbara (Miramonte Laboratory) - Endometriosis
Santa Rosa (Santa Rosa Memorial Hospital) - Endometriosis (3)
Woodland Hills (Kaiser Permanente) - Endometriosis
Arkansas (The Lab of Path, PA) - Endometriosis
Georgia, Atlanta - Endometriosis
Kansas (Peterson Laboratory Service) - Endometriosis
Maryland, Baltimore - Endometriosis
Michigan (Wayne State University) -
New Mexico, Albuquerque - Endometriosis
Texas, Victoria - Endometriosis
Canada (University of Sherbrooke) - Endometriosis
Hong Kong (Hong Kong Baptist Hospital) - Endometriosis
India, Kochi - Endometriosis

Dx: Endometriosis, colon

Intestinal endometriosis mimicking carcinoma of rectum and sigmoid colon: a report of five cases.

Yonsei Med J (Korea 2009 Oct 31;50(5): p732-5
Kim JS; Hur H; Min BS; Kim H; Sohn SK; Cho CH; Kim NK

Endometriosis with colonic wall invasion.

Clin Gastroenterol Hepatol 2007 Mar;5(3): pA30
Karlitz JJ; Tepler IA; Tanaka KE

High-grade endometrial stromal sarcoma arising from colon endometriosis.

Int J Colorectal Dis 2007 Dec;22(12): p1551-3
Chen CW; Ou JJ; Wu CC; Hsiao CW; Cheng MF; Jao SW

Endometriomas are more frequent on the left side.

Acta Obstet Gynecol Scand 2008;87(1): p104-6
Sznurkowski JJ; Emerich J

The pathology of endometriosis: a survey of the many faces of a common disease emphasizing diagnostic pitfalls and unusual and newly appreciated aspects.

Adv Anat Pathol 2007 Jul;14(4): p241-60
Clement PB

Case 3

A 51 y/o woman was found to have a 8.0 x 6.0 x 3.0 cm pancreatic tumor which involved the pancreas, small bowel, large bowel and stomach. It was positive for vimentin, and negative for actin, CD34, desmin, CD 117, Pancytokeratin and S100. Case seen by Sharon Weiss, MD.

Santa Barbara (Miramonte Laboratory) - Low-grade sarcoma

Santa Rosa (Santa Rosa Memorial Hospital) - Abdominal fibromatosis (2); Sclerosing mesenteritis/retroperitonitis (1)

Woodland Hills (Kaiser Permanente) - Nodular fasciitis

Arkansas (The Lab of Path, PA) - Fibromatosis

Georgia, Atlanta - Fibromatosis

Kansas (Peterson Laboratory Service) - Nodular fasciitis

Maryland, Baltimore - Fibromatosis

Michigan (Wayne State University) -

New Mexico, Albuquerque - Inflammatory myofibroblastic tumor

Texas, Victoria - SFT

Canada (University of Sherbrooke) - Fibromatosis

Hong Kong (Hong Kong Baptist Hospital) - Fibromatosis

India, Kochi - Fibromatosis of pancreas

Dx: Fibromatosis, pancreas

A nation-wide study comparing sporadic and familial adenomatous polyposis-related desmoid-type fibromatoses.

Int J Cancer 2011 Jul 1;129(1): p256-61

Nieuwenhuis MH; Casparie M; Mathus-Vliegen LM; Dekkers OM; Hogendoorn PC; Vasen HF

Testosterone regulates cell proliferation in aggressive fibromatosis (desmoid tumour).

Br J Cancer 2011 Apr 26;104(9): p1452-8

Hong H; Nadesan P; Poon R; Alman BA

Identification of biological factors predictive of response to imatinib mesylate in aggressive fibromatosis.

Br J Cancer 2010 Aug 10;103(4): p482-5

Dufresne A; Bertucci F; Penel N; Le Cesne A; Bui B; Tubiana-Hulin M; Ray-Coquard I; Cupissol D; Chevreau C; Perol D; Goncalves A; Jimenez M; Bringuier PP; Blay JY

Prognostic factors in desmoid-type fibromatosis: a clinicopathological and immunohistochemical analysis of 46 cases.

Pathology 2010 Feb;42(2): p147-50

Huang PW; Tzen CY

Fibromatosis of the remnant pancreas after pylorus-preserving pancreaticoduodenectomy.

J Gastrointest Surg 2006 May;10(5): p679-88

Weiss ES; Burkart AL; Yeo CJ

Giant mesenteric fibromatosis presenting as small bowel obstruction.
Am Surg 2006 May;72(5): p427-9
Holubar S; Dwivedi AJ; O'Connor J

Desmoid tumors and current status of management.
Orthop Clin North Am 2006 Jan;37(1): p53-63
Hosalkar HS; Fox EJ; Delaney T; Torbert JT; Ogilvie CM; Lackman RD

Case 4

A 51-year-old male presented with abdominal pain and was found to have a gastric mass. A partial gastrectomy was performed which revealed a 4.6 x 4.5 x 4.2 cm yellow-tan submucosal mass in the stomach.

Desmin	Negative
S100	Negative
CD117	Negative
Vimentin	Strong positive
SMA	Patchy positive staining
AE1/3	Rare positive cells

Santa Barbara (Miramonte Laboratory) - Leiomyosarcoma
Santa Rosa (Santa Rosa Memorial Hospital) - Smooth muscle tumor, NOS (1);
Inflammatory myofibroblastic tumor (1)
Woodland Hills (Kaiser Permanente) - Inflammatory myofibroblastic tumor
Arkansas (The Lab of Path, PA) - Inflammatory myofibroblastic tumor
Georgia, Atlanta - Epithelioid leiomyosarcoma
Kansas (Peterson Laboratory Service) - Inflammatory myofibroblastic tumor
Maryland, Baltimore - Inflammatory myofibroblastic tumor
Michigan (Wayne State University) -
New Mexico, Albuquerque - Leiomyosarcoma
Texas, Victoria - Alveolar soft part sarcoma
Canada (University of Sherbrooke) - Inflammatory pseudotumor
Hong Kong (Hong Kong Baptist Hospital) - Epithelioid GIST/leiomyosarcoma
India, Kochi - Inflammatory myofibroblastic tumor of stomach

Dx: Inflammatory myofibroblastic tumor (IMT), stomach

Recurrent gastric inflammatory myofibroblastic tumour in a 13-year-old male.

Pediatr Surg Int 2007 Jun;23(6): p601-3
Hamidah A; Khu SY; Thambidorai CR; Muhaizan WM; Zarina AL; Jamal R

Inflammatory myofibroblastic tumor: an unusual submucosal lesion of the stomach.

Endoscopy 2011;43 Suppl 2 UCTN:E151-2
Lee YK; Wang HY; Shyung LR; Chang CW; Chen MJ

Exophytic inflammatory myofibroblastic tumor of the stomach in an adult woman: a rare cause of hemoperitoneum.
World J Gastroenterol 2008 Jan 7;14(1): p136-9
Park SH; Kim JH; Min BW; Song TJ; Son GS; Kim SJ; Lee SW; Chung HH; Lee JH; Um JW

Primary gastric inflammatory myofibroblastic tumor: a clinicopathologic and immunohistochemical study of 5 cases.
Pathol Res Pract 2010 May 15;206(5): p287-91
Shi H; Wei L; Sun L; Guo A

EUS with EMR of an inflammatory myofibroblastic tumor of the stomach.
Gastrointest Endosc 2008 Mar;67(3): p561-3
Shah SM; Sussman D; Jorda M; Ribeiro A

Case 5

A middle aged woman had a 4 cm mass in the gastric wall. The tumor expressed CD34 and CD117, but was negative for CK, S100, MSA, and desmin.

Santa Barbara (Miramonte Laboratory) - Gastrointestinal stromal tumor
Santa Rosa (Santa Rosa Memorial Hospital) - Gastrointestinal stromal tumor (3)
Woodland Hills (Kaiser Permanente) - Gastrointestinal stromal tumor
Arkansas (The Lab of Path, PA) - Gastrointestinal stromal tumor
Georgia, Atlanta - Gastrointestinal stromal tumor
Kansas (Peterson Laboratory Service) - Gastrointestinal stromal tumor
Maryland, Baltimore - Gastrointestinal stromal tumor
Michigan (Wayne State University) - T
New Mexico, Albuquerque - Gastrointestinal stromal tumor
Texas, Victoria - Gastrointestinal stromal tumor
Canada (University of Sherbrooke) - Gastrointestinal stromal tumor
Hong Kong (Hong Kong Baptist Hospital) - Gastrointestinal stromal tumor
India, Kochi - Gastrointestinal stromal tumor

Dx: GIST, stomach

Diagnosis and treatment of gastrointestinal stromal tumors of the stomach: report of 28 cases.
Ann Clin Lab Sci 2007 Winter;37(1): p15-21
Wu Y; Zhu X; Ding Y

[Gastrointestinal stromal tumors of the stomach. Updates and differences compared to other locations]
Pathologe 2010 May;31(3): p195-8
Wardelmann E; Hohenberger P; Reichardt P; Merkelbach-Bruse S; Schildhaus HU; Buttner R

Gastrointestinal stromal tumors presenting as omental masses--a clinicopathologic analysis of 95 cases.
Am J Surg Pathol 2009 Sep;33(9): p1267-75
Miettinen M; Sobin LH; Lasota J

Is it possible to differentiate gastric GISTs from gastric leiomyomas by EUS?

World J Gastroenterol 2009 Jul 21;15(27): p3376-81

Kim GH; Park do Y; Kim S; Kim DH; Kim DH; Choi CW; Heo J; Song GA

Small and microscopically detected gastrointestinal stromal tumours: an overview.

Pathology 2008 Jan;40(1): p9-12

Chetty R

Surgical outcomes and immunohistochemical features for gastrointestinal stromal tumors (GISTs) of the stomach: with special reference to prognostic factors.

Hepatogastroenterology 2007 Jul-Aug;54(77): p1454-7

Park SS; Ryu JS; Oh SY; Kim WB; Lee JH; Chae YS; Kim SJ; Kim CS; Mok YJ

Case 6

A 62 y/o man presented with abdominal pain. An exploratory lap was done and the appendix was removed.

Santa Barbara (Miramonte Laboratory) - Serous cystadenoma

Santa Rosa (Santa Rosa Memorial Hospital) - Cystadenoma (1); Benign cyst adenoma (1); Adenomyosis of appendix (1)

Woodland Hills (Kaiser Permanente) - Adenocarcinoma of the appendix

Arkansas (The Lab of Path, PA) - Adenomyosis of appendix

Georgia, Atlanta - Adenomyoma of gallbladder

Kansas (Peterson Laboratory Service) - Mucinous cystadenoma

Maryland, Baltimore - Adenomyoma

Michigan (Wayne State University) -

New Mexico, Albuquerque - Adenomyoma

Texas, Victoria - Adenomyoma

Canada (University of Sherbrooke) - Adenomyoma

Hong Kong (Hong Kong Baptist Hospital) - Adenomyoma

India, Kochi - Adenomyoma of appendix

Dx: Adenomyoma, appendix

Epithelial neoplasms of the appendix.

Arch Pathol Lab Med 2010 Nov;134(11): p1612-20

Tang LH

Primary epithelial neoplasms and other epithelial lesions of the appendix (excluding carcinoid tumors).

Semin Diagn Pathol 2004 May;21(2): p120-33

Misdraji J; Young RH

Looking through a keyhole: serrated neoplasia in the vermiform appendix.

Am J Clin Pathol 2010 Apr;133(4): p529-32, Comment in Am J Clin Pathol. 2010 Apr; 133(4):623-32
Upton MP

Strangulation of the vermiform appendix within a right inguinal hernia: a rare variation of Amyand's hernia.

Am Surg 2010 Nov;76(11): p1305-6

Ioannidis O; Styliani P; Kakoutis E; Rafail S; Chatzopoulos S; Konstantara A; Makrantonakis N

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Miscellaneous conditions of the appendix.

Semin Diagn Pathol 2004 May;21(2): p151-63

Misdraji J; Graeme-Cook FM

Torsion of the appendix mimicking ovarian torsion.

Obstet Gynecol 2006 Feb;107(2 Pt 2): p466-7

Bowling CB; Lipscomb GH

Case 7

A gallbladder resection was done on a 67 y/o woman who had a clinical diagnosis of "chronic cholecystitis".

Santa Barbara (Miramonte Laboratory) - Neuroendocrine carcinoma

Santa Rosa (Santa Rosa Memorial Hospital) - Adenocarcinoma (3)

Woodland Hills (Kaiser Permanente) - Adenomyomatous hyperplasia/adenomyoma of the gallbladder

Arkansas (The Lab of Path, PA) - Adenosquamous carcinoma

Georgia, Atlanta - Adenosquamous carcinoma

Kansas (Peterson Laboratory Service) - Adenocarcinoma

Maryland, Baltimore - Adenosquamous carcinoma

Michigan (Wayne State University) -

New Mexico, Albuquerque - Squamous cell carcinoma

Texas, Victoria - Adenosquamous carcinoma

Canada (University of Sherbrooke) - Adenosquamous carcinoma

Hong Kong (Hong Kong Baptist Hospital) - Adenocarcinoma

India, Kochi - Adenosquamous carcinoma of gallbladder

Dx: Adenosquamous Ca, gallbladder

Adenosquamous carcinoma of the gallbladder warrants resection only if curative resection is feasible.

Cancer 2002 Jun 1;94(11): p3000-5

Oohashi Y; Shirai Y; Wakai T; Nagakura S; Watanabe H; Hatakeyama K

Combined adenosquamous and large-cell neuroendocrine carcinoma of the gallbladder.

Virchows Arch 2006 Jul;449(1): p135-6

Noske A; Pahl S

The value of p53 protein expression in gallbladder carcinoma: analysis of 60 cases.

Hepatogastroenterology 2004 Sep-Oct;51(59): p1310-4
da Rocha AO; Coutinho LM; Scholl JG; Leboutte LD

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Clinicopathologic analysis of adenosquamous/squamous cell carcinoma of the gallbladder.

J Surg Oncol 2011 Mar 1;103(3): p239-42
Kim WS; Jang KT; Choi DW; Choi SH; Heo JS; You DD; Lee HG

Adenosquamous/squamous cell carcinoma of the gallbladder.

J Surg Oncol 2007 Feb 1;95(2): p129-34
Chan KM; Yu MC; Lee WC; Jan YY; Chen MF

A clinicopathological study of nine cases of gallbladder carcinoma in 1122 cholecystectomies in Johor, Malaysia.

Malays J Pathol 2008 Jun;30(1): p21-6
Khoo JJ; Nurul AM

Case 8

A 66 y/o male with weight loss surgery (stomach stapling) approximately 20 years prior presented with discomfort at the level of his umbilicus. He denied any changes in bowel habits, but did note some blood on tissue paper. He also suffered from 2-3 episodes of emesis daily, and was disturbed by a recent change in his voice

PMHx: GASTRIC STAPLING; Stroke in 1983; Paraganglioma L adrenal gland with L adrenalectomy 1998; Cholecystectomy 1998; Head Injuries-multiple; GERD; Atypical Chest Pain; Asthma

Santa Barbara (Miramonte Laboratory) - Carcinoid

Santa Rosa (Santa Rosa Memorial Hospital) - Neuroendocrine carcinoma, well-differentiated, grade 1 (1); Carcinoid tumor (2)

Woodland Hills (Kaiser Permanente) - Carcinoid tumor

Arkansas (The Lab of Path, PA) - Carcinoid

Georgia, Atlanta - Well-differentiated neuroendocrine (carcinoid) tumor

Kansas (Peterson Laboratory Service) - Neuroendocrine neoplasm, grade 2/3

Maryland, Baltimore - Carcinoid

Michigan (Wayne State University) -

New Mexico, Albuquerque - Carcinoid tumor

Texas, Victoria - Carcinoid

Canada (University of Sherbrooke) - Neuroendocrine tumor G1

Hong Kong (Hong Kong Baptist Hospital) - Carcinoid

India, Kochi - Carcinoid of stomach

Dx: Carcinoid, stomach

Review of the pathogenesis, diagnosis, and management of type I gastric carcinoid tumor.

World J Surg 2011 Aug;35(8): p1879-86

Zhang L; Ozao J; Warner R; Divino C

Achlorhydria, parietal cell hyperplasia, and multiple gastric carcinoids: a new disorder.

Am J Surg Pathol 2007 Mar;31(3): p488

Argani P; Choti MA; Abraham SC

The current spectrum of gastric polyps: a 1-year national study of over 120,000 patients.

Am J Gastroenterol 2009 Jun;104(6): p1524-32

Carmack SW; Genta RM; Schuler CM; Saboorian MH

Case 9

A 14 m/o girl was admitted with hepatomegaly. The liver margin was palpable 5 cm below the mid clavicular line. An exploratory laparotomy showed the liver to be involved by a diffuse, large tumor. The patient was treated with radiation therapy, but developed abdominal distention due to ascites. The SGOT rose to 455 and the SGPT rose to 345. The alpha fetoprotein was 4780. The girl then expired. Autopsy showed a 1,015 gram liver with a variegated 8 x 4 cm tumor in the mid area. It was yellow-green and contained cystic and calcified areas.

Santa Barbara (Miramonte Laboratory) - Hepatoma

Santa Rosa (Santa Rosa Memorial Hospital) - Hepatoblastoma (2); Mesenchymal hamartoma (1)

Woodland Hills (Kaiser Permanente) - Hepatocellular carcinoma

Arkansas (The Lab of Path, PA) - Hepatoblastoma

Georgia, Atlanta - Hepatoblastoma

Kansas (Peterson Laboratory Service) - Hepatoblastoma

Maryland, Baltimore - Hepatoblastoma

Michigan (Wayne State University) -

New Mexico, Albuquerque - Hepatoblastoma, mixed epithelial and mesenchymal pattern

Texas, Victoria - Hepatoblastoma

Canada (University of Sherbrooke) - Hepatoblastoma

Hong Kong (Hong Kong Baptist Hospital) - Hepatoblastoma

India, Kochi - Hepatoblastoma of liver

Dx: Hepatoblastoma, liver

Complete surgical resection is curative for children with hepatoblastoma with pure fetal histology: a report from the Children's Oncology Group.

J Clin Oncol 2011 Aug 20;29(24): p3301-6

Malogolowkin MH; Katzenstein HM; Meyers RL; Krailo MD; Rowland JM; Haas J; Finegold MJ

Cytogenetic and array comparative genomic hybridization analysis of a series of hepatoblastomas.

Cancer Genet Cytogenet 2009 Oct 15;194(2): p82-7

Stejskalova E; Malis J; Snajdauf J; Pycha K; Urbankova H; Bajciová V; Stary J; Kodet R; Jarosova M

Histologic subtypes of hepatoblastoma are characterized by differential canonical Wnt and Notch pathway activation in DLK+ precursors.

Hum Pathol 2009 Jun;40(6): p783-94

Lopez-Terrada D; Gunaratne PH; Adesina AM; Pulliam J; Hoang DM; Nguyen Y; Mistretta TA; Margolin J; Finegold MJ

Cytologic diagnosis of small cell anaplastic hepatoblastoma: a case report.

Acta Cytol 2006 Mar-Apr;50(2): p205-7

Philipose TR; Naik R; Rai S

Familial hepatoblastoma and APC gene mutations: renewed call for molecular research.

Eur J Cancer 2003 Oct;39(15): p2200-4

Thomas D; Pritchard J; Davidson R; McKiernan P; Grundy RG; de Ville de Goyet J

Undifferentiated small cell hepatoblastoma with a chromosomal translocation t(22; 22)(q11; q13).

Histopathology 2002 May;40(5): p485-7

Gunawan B; Schafer KL; Sattler B; Lorf T; Dockhorn-Dworniczak B; Ringe B; Fuzesi L

Fine needle aspiration cytology of hepatoblastoma. Recognition of subtypes on cytomorphology.

Acta Cytol 2005 Jul-Aug;49(4): p355-64

Iyer VK; Kapila K; Agarwala S; Verma K

Case 10

A 49 y/o woman was a recipient of a liver transplant. The original liver (explanted) was 2,480 grams and measured 32.0 x 15.0 x 13.8 cm. The finely nodular surface was marked with multiple firm white patches with adjacent sclerosis ranging from 2.0 cm up to 6.0 cm in greatest diameter. Both lobes were involved.

Santa Barbara (Miramonte Laboratory) - End-stage autoimmune hepatitis

Santa Rosa (Santa Rosa Memorial Hospital) - Histiocytic proliferation consistent with sclerosis/rule out amyloidosis (1); NOS (1); Lymphocyte-depleted Hodgkin lymphoma vs. neoplastic histiocytic proliferation (1)

Woodland Hills (Kaiser Permanente) - Epithelioid hemangioendothelioma

Arkansas (The Lab of Path, PA) - Epithelioid hemangioendothelioma

Georgia, Atlanta - Epithelioid hemangioendothelioma

Kansas (Peterson Laboratory Service) - Epithelioid hemangioendothelioma

Maryland, Baltimore - Epithelioid hemangioendothelioma

Michigan (Wayne State University) -

New Mexico, Albuquerque - Epithelioid hemangioendothelioma

Texas, Victoria - Sclerosing cholangitis with carcinoma

Canada (University of Sherbrooke) - Epithelioid hemangioendothelioma

Hong Kong (Hong Kong Baptist Hospital) - Epithelioid hemangioendothelioma

India, Kochi - Hemangioendothelioma of liver

Dx: Epithelioid hemangioendothelioma, liver

Unusual hemangioendothelioma of the liver with epithelioid morphology associated with marked eosinophilia: autopsy case. Pathol Int 2006 Nov;56(11): p694-701

Kimura T; Mukai M; Kaneko Y; Hirakata M; Okamoto S; Sakamoto M; Okada Y; Ikeda Y

Epithelioid hemangioendothelioma of the liver.

J Hepatobiliary Pancreat Surg 2006;13(2): p167-71

Garcia-Botella A; Diez-Valladares L; Martin-Antona E; Sanchez-Pernaute A; Perez-Aguirre E; Ortega L; Rodriguez R; Balibrea JL

Right upper quadrant pain and fever in a 41-year-old man.

Epithelioid hemangioendothelioma of the liver with metastasis to porta hepatis lymph nodes and lung.

Arch Pathol Lab Med 2005 May;129(5): pe134-5

Aalaei S; Jakate S

Pathologic quiz case: multiple liver and lung nodules. Epithelioid hemangioendothelioma of the liver.

Arch Pathol Lab Med 2004 Dec;128(12): pe183-5

Blaney S; Fung C; Garcia C

Benign and malignant vascular tumors of the liver in adults.

Semin Liver Dis 2008 Aug;28(3): p302-14

Bioulac-Sage P; Laumonier H; Laurent C; Blanc JF; Balabaud C

