1523

CALIFORNIA
TUMOR TISSUE REGISTRY

"GENERAL PATHOLOGY"

Study Cases, Subscription B

October 2002

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 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 up to 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: Wafa Michael, M.D.
Fontana, CA

Case No. 1 - October 2002

Tissue from: Tendon sheath

Accession #29462

Clinical Abstract:

A mass developed on the left palm of this 68-year-old male. The tissue was surgically removed.

Gross Pathology:

The specimen was a white bosselated dense mass that measured 3.5 x 3.0 x 2.3 cm.

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

Case No. 2 - October 2002

Tissue from: Uterus

Accession #28871

Clinical Abstract:

This was a 38-year-old female who had a long history of menometrorrhagia. She underwent a complete hysterectomy. Upon surgery, the uterus was enlarged and a cyst was found in the left ovary.

Gross Pathology:

The specimen was a uterus with detached cervix that weighed 400 grams and measured 11.0 x 8.0 x 7.0 cm. The myometrial wall was markedly thickened up to 5.0 cm. There were well-circumscribed myomatous nodules up to 2 cm. In the lateral aspect was a polypoid mass protruding 7.0 cm laterally in the inferior aspect. Cut sections were partly cystic with portions lined by red-tan tissue. Cystic portion was filled with dark, red-brown, water, serosangenous fluid. Parenchyma was rubbery, homogenous and yellow.

Contributor: Jozef Collin, M.D.
Lakewood, CA

Case No. 3 - October 2002

Tissue from: Right ovary

Accession #29533

Clinical Abstract:

A lower quadrant tumor developed in the right ovary of this 77-year-old female. A salpingo-oophorectomy was performed.

Gross Pathology:

The lesion measured 14.0 x 12.0 x 9.0 cm with smooth surface without papillations. Cross sectionings revealed hemorrhages and widespread necrosis. The rest of the tissue was fish-flesh with grayish-white color.

Contributor: Donald Rankin, M.D.
Fontana, CA

Case No. 4 - October 2002

Tissue from: Left ovary

Accession #27738

Clinical Abstract:

This 34-year-old female had a lesion found in her left ovary. She underwent a salphingo-ooperectomy.

Gross Pathology:

The specimen was a 430 gram ovary that measured 13.3 x 7.6 x 8.9 cm. The outer surface was gray-white and smooth. Sections showed two large cysts that measured 7.5 and 6.0 cm with hemorrhagic contents.

SPECIAL STUDIES:

Thyroglobulin	negative
NSE	negative
Chromogranin	negative
Grimeluis	focally positive

Contributor: Mark Janssen, M.D.
Anaheim, CA

Case No. 7 - October 2002

Tissue from: Left temporal

Accession #27399

Clinical Abstract:

This 60-year-old male was presented with a several weeks history of headaches, speech difficulty, memory loss, confusion. He had an episode of loss of consciousness while on vacation in England a week prior to admission. CT scan confirmed an enhancing mass lesion in the left middle cranial fossa. A left frontotemporal craniotomy was performed.

Gross Pathology:

The left temporal tumor measured 4.0 x 4.0 x 2.5 cm. The tan tissue showed a nodular mass with smooth surfaces.

Contributor: Robert Zuch, M.D.
Baldwin Park, CA

Case No. 8 - October 2002

Tissue from: Left arm

Accession #29483

Clinical Abstract:

This right-handed 52-year-old male computer system analyst was presented with a three years history of a slow growing soft tissue mass in the left anterior arm. A firm, fixed and deep seeded mass was palpable upon physical examination. MRI showed a large homogenous mass in the distal brachialis muscle. An incisional biopsy was performed.

Gross Pathology:

The specimen was divided into two parts. First part was yellow tan tissue that measured 1.0 x 1.0 x 0.5 cm. The second portion weighed and meaured 140 gram, 10.0 x 7.0 x 4.0 cm respectively. There was a separated piece of tissue that was composed of skin that measured 2.8 x 0.8 cm and an underlying tissue that measured 4.0 x 3.0 x 3.0 cm. The larger fraction of the tissue was totally replaced by a glistening white bosselated somewhat whorled appearing tumor mass.

Contributor: LLUMC Pathology Group (gws)
Loma Linda, CA

Case No. 9 - October 2002

Tissue from: Retroperitoneum

Accession #29478

Clinical Abstract:

This is a 51-year-old male that had complains of increasing abdominal pain more on the left side, weakness, and weight loss. Abdominal CT scan revealed a mass in the retroperitoneum, which involved the left kidney, spleen and pancreas.

Gross Pathology:

This 1,820 grams of specimen was composed of the left kidney, tail of the pancreas, spleen, segment of colon, portion of stomach, adrenal gland and associate retroperitoneal soft tissue. The 14.0 cm irregular lobulated tumor with a fleshy tan white to yellow color was centered in the soft tissue above the left kidney. The distal portion of the tumor invaded the 1.0 cm proximal margin of the pancreas to the hilum of the spleen. The tumor compressed the adrenal gland laterally, but does not invade the cortex. The 26.0 cm segment of colon has a tumor adherent to the wall.

SPECIAL STUDIES:

Synaptophysin	Strongly positive
Chromogranin	Patchy weak positive

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

Case No. 10 - October 2002

Tissue from: Left flank

Accession #29542

Clinical Abstract:

For about a year, a mass in the left flank was causing discomfort to this 77-year-old male. The mass was observed to have increased its size and was excised for biopsy.

Gross Pathology:

The specimen was a bilobed well-circumscribed mass of adipose tissue and measured 8.5 x 6.5 x 4.0 cm. The sections revealed that the tissue was made up of yellow adipose or adipose-like tissue.

CALIFORNIA
TUMOR TISSUE REGISTRY

"GENERAL PATHOLOGY"

Minutes – Subscription B

October 2002

SUGGESTED READING (General Topics from Recent Literature):

Molecular Characterisation of Soft Tissue Tumours: A Gene Expression Study. Nielsen TO, West RB, Linn SC, et al. *Lancet.* 2002 Apr 13; 359(9314):1301-1307.

A New Trend of Breast Cancer Research in The Genome Era (Review). Kodama M, Kodama T. *Int J Mol Med.* 2001 Sep; 8(3):291-302.

A Novel Reciprocal Chromosome Translocation t(11;22)(p13;q12) in an Intraabdominal Desmoplastic Small Round-Cell Tumor. Sawyer JR, Tryka AF, Lewis JM. *Am J Surg Pathol.* 1992 Apr; 16(4):411-416.

A Long-Term Study of Prognosis in Monoclonal Gammopathy of Undetermined Significance. Kyle RA, Therneau TM, Rajkumar SV, et al. *N Engl J Med.* 2002 Feb 21; 346(8):564-569.

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FILE DIAGNOSES

CTTR Subscription B October 2002

Case 1:

Fibroma of tendon sheath, left palm
T-Y8740, M-8810/0

Case 2:

Epithelioid leiomyoma, uterus
T-85000, M-88911

Case 3:

Endometrioid adenocarcinoma, ovary
T-87000, M-83801/3

Case 4:

Strumal carcinoid (combined struma ovarii and carcinoid), ovary
T-87000, M-90911

Case 5:

Mixed germ cell tumor (embryonal carcinoma and seminoma) with syncytial trophoblastic elements, testis
T-78000, M-90613

Case 6:

Hemangiopericytoma, leg
T-Y9400, M-9150/1

Case 7:

Meningioma
T-X2000, M-9530/0

Case 8:

Pigmented villonodular synovitis (diffuse tenosynovial giant cell tumor), arm
T-Y8000, M-47830

Case 9:

Neuroendocrine carcinoma, probably of pancreatic origin
T-59000, M-8010/3

Case 10:

Well differentiated sclerosing liposarcoma, flank
T-Y1310, M-88513

Case No. 1, Accession No. 29462 **October 2002**

Escondido - Fibroma of tendon sheath
Glendale - Fibroma of tendon sheath
Loma Linda - Fibroma, tendon sheath
Modesto (Yosemite Pathology Medical Group) - Fibroma of tendon sheath
Orange (UCI Medical Center) - Fibroma of tendon sheath, palm
Sacramento (UC Davis Medical Center) - Fibroma of tendon sheath
San Diego (Naval Medical Center) - Palmar fibromatosis
Arizona (Phoenix Memorial Hospital) - Fibroma of tendon sheath
Arkansas, Little Rock - Fibroma of tendon sheath
Colorado, Denver - Fibromatosis
Florida (Hospital Pathologists) - Fibromatosis
Florida (Monroe Regional Center) - Fibroma of tendon sheath
Florida (Winter Haven Hospital) - Fibroma of tendon sheath
Georgia, Decatur - Fibromatosis, palmar (Dupuytren's disease)
Illinois (Marion Memorial Hospital) - Fibroma of tendon sheath
Indiana, Fort Wayne - Collagenous fibroma (desmoplastic fibroblastoma), (L) palm
Kansas (Coffeyville Regional Medical) - Nodular fasciitis
Maryland (National Naval Medical Center) - Fibromatosis (3); Fibroma of tendon sheath (9)
Maryland (NIH Pathology Residents) - Palmar fibromatosis
Massachusetts (Brigham & Women's Hospital - Desmoplastic fibroblastoma
Michigan (St. Joseph Mercy Hospital) - Fibroma of tendon sheath
Michigan (St. Mary's Mercy Hospital) - Myxoma (2)
Michigan (Spectrum Health) - Fibroma of tendon sheath (2)
Minnesota (United Hospital) - Benign myxoma
Nebraska (Good Samaritan Hospital) - Fibroma
Nebraska (University of Nebraska Medical Center) - Collagenous fibroma
New York (IMPATH, Inc.) - Palmar sclerotic fibroma
New York (Nassau University Medical Center) - Collagenous fibroma, left palm
New York (Westchester Medical Center) - Fibroma of tendon sheath
Pennsylvania (Allegheny General Hospital - Fibroma
Pennsylvania (Conemaugh Memorial Medical Center) - Fibromatosis /left palm
Pennsylvania (Magee Women's Hospital) - Fibroma of tendon sheath
Texas, Houston - Fibroma of tendon sheath
Texas, Lubbock - Fibroma
Texas, San Antonio - Fibroma of tendon sheath
Texas (Scott & White Memorial Hospital) - Collagenous fibroma
Utah (St. Mark's Hospital) - Fibroma of tendon sheath
Washington, DC - Fibroma
Washington (Madigan Army Medical Center) - Fibroma of tendon sheath
West Virginia (West Virginia University) - Fibroma of the tendon sheath
Canada (CUSE, Site Fleurimont) - Fibroma of the tendon sheath
Canada (Foothills Medical Center) - Fibroma of tendon sheath
China (Sir Run Run Shaw Hospital) - Fibromatosis
Japan, Chiba - Extra abdominal fibromatosis
Japan (Hamamatsu University School of Medicine) - Palmar fibromatosis
Japan (Self Defense Hospital) - Fibroma of the tendon sheath
Japan (Shiga University of Medical Science) - Palmar fibromatosis
Puerto Rico (University of Puerto Rico) - Fibromatosis
Spain (Policlinico Vigo, S.A.) - Collagenous fibroma
The Netherlands, Amstelveen - Fibroma of the tendon sheath

Case 1 - Diagnosis:

Fibroma of tendon sheath, left palm
T-Y8740, M-8810/0

Case 1 - References:

Dal Cin P, Sciot R, De Smet L, et al. Translocation 2;11 in a Fibroma of Tendon Sheath. *Histopathology*. 1998 May; 32(5):433-435.
Millon SJ, Bush DC, Garbes AD. Fibroma of Tendon Sheath in the Hand. *J Hand Surg [Am]*. 1994 Sep; 19(5):788-793.
Satti MB. Tendon Sheath Tumours: A Pathological Study of the Relationship Between Giant Cell Tumour and Fibroma of Tendon Sheath. *Histopathology*. 1992 Mar; 20(3):213-220.

Maluf HM, DeYoung BR, Swanson PE, et al. Fibroma and Giant Cell Tumor of Tendon Sheath: A Comparative Histological and Immunohistological Study. *Mod Pathol*. 1995 Feb; 8(2):155-159.

Case No. 2, Accession No. 28871 **October 2002**

Escondido - Endometrial stromal sarcoma
Glendale - Epithelioid leiomyoma
Loma Linda - Epithelioid myoma - uterus
Modesto (Yosemite Pathology Medical Group) - Smooth muscle tumor
Orange (UCI Medical Center) - Epithelioid leiomyoma, uterus
Sacramento (UC Davis Medical Center) - Epithelioid leiomyoma
San Diego (Naval Medical Center) - Adenomatoid tumor vs. epithelioid leiomyoma
Arizona (Phoenix Memorial Hospital) - Epithelioid leiomyoma
Arkansas, Little Rock - Uterine epithelioid smooth muscle tumor
Colorado, Denver - Cellular leiomyoma
Florida (Hospital Pathologists) - Cellular leiomyoma
Florida (Monroe Regional Center) - Endometrial stromal nodule
Florida (Winter Haven Hospital) - Epithelioid smooth muscle tumor of uncertain malignant potential
Georgia, Decatur - Endometrial stromal sarcoma
Illinois (Marion Memorial Hospital) - Epithelioid leiomyoma
Indiana, Fort Wayne - Stromal nodule with myomatous features
Kansas (Coffeyville Regional Medical) - Low grade endometrial stromal sarcoma
Maryland (National Naval Medical Center) - Epithelioid leiomyoma (12)
Maryland (NIH Pathology Residents) - Epithelioid leiomyoma rule out low grade endometrial stromal sarcoma
Massachusetts (Brigham & Women's Hospital) - Endometrial stromal tumor
Michigan (St. Joseph Mercy Hospital) - Epithelioid leiomyoma
Michigan (St. Mary's Mercy Hospital) - Low grade endometrial stromal sarcoma (1); Low grade stromal sarcoma (1)
Michigan (Spectrum Health) - Epithelioid leiomyoma (1); Epithelioid leiomyoblastoma (1)
Minnesota (United Hospital) - Low grade epithelioid leiomyosarcoma
Nebraska (Good Samaritan Hospital) - Endometrial stromal nodule
Nebraska (University of Nebraska Medical Center) - Low grade endometrial stromal sarcoma
New York (IMPATH, Inc.) - Epithelioid leiomyoma
New York (Nassau University Medical Center) - Epithelioid leiomyoma, uterus
New York (Westchester Medical Center) - Endometrial stromal tumor vs. epithelioid smooth muscle tumor ? PEComa (perivascular epithelioid cell tumor)
Pennsylvania (Allegheny General Hospital - Low grade stromal sarcoma
Pennsylvania (Conemaugh Memorial Medical Center) - Epithelioid leiomyoma/uterus
Pennsylvania (Magee Women's Hospital) - Epithelioid leiomyoma
Texas, Houston - Epithelioid leiomyoma
Texas, Lubbock - Leiomyoblastoma
Texas, San Antonio - Endometrial stromal sarcoma LG
Texas (Scott & White Memorial Hospital) - Epithelioid leiomyoma
Utah (St. Mark's Hospital) - Epithelioid leiomyosarcoma
Washington, DC - Epithelioid leiomyoma
Washington (Madigan Army Medical Center) - Epithelioid leiomyoma
West Virginia (West Virginia University) - Low-grade endometrial stromal sarcoma
Canada (CUSE, Site Fleurimont) - Atypical leiomyoma
Canada (Foothills Medical Center) - Low grade endometrial stromal sarcoma
China (Sir Run Run Shaw Hospital) - Epithelioid leiomyoma
Japan, Chiba - Endometrial stromal sarcoma, low grade
Japan (Hamamatsu University School of Medicine) - Epithelioid leiomyoma
Japan (Self Defense Hospital) - Stromal sarcoma, low grade
Japan (Shiga University of Medical Science) - Endometrial stromal nodule
Puerto Rico (University of Puerto Rico) - Epithelioid leiomyoma (leiomyoblastoma)
Spain (Policlinico Vigo, S.A.) - Epithelioid leiomyoma
The Netherlands, Amstelveen - Epithelioid leiomyoma

Case 2 - Diagnosis:

Epithelioid leiomyoma, uterus

T-85000, M-88911

Consultation: Drs. Kempson and Hendrickson (Stanford University) "Cellular lesion, favor epithelioid leiomyoma."

Case 2 - References:

Draeger A, Graf AH, Staudach A, et al. Smooth Muscle Differentiation in Human Myometrium and Uterine Leiomyoma. *Virchows Arch B Cell Pathol Incl Mol Pathol.* 1993;64(1):21-27

Prayson RA, Hart WR. Pathologic Considerations of Uterine Smooth Muscle Tumors. *Obstet Gynecol Clin North Am.* 1995 Dec; 22(4):637-657

Case No. 3, Accession No. 29533 October 2002

Escondido - Endometrioid carcinoma
Glendale - Endometrioid carcinoma
Loma Linda - Endometrioid adenocarcinoma, ovary
Modesto (Yosemite Pathology Medical Group) - Endometrioid adenocarcinoma
Orange (UCI Medical Center) - Adenocarcinoma, ovary
Sacramento (UC Davis Medical Center) - Adenocarcinoma rule out metastasis
San Diego (Naval Medical Center) - Grade II endometrioid adenocarcinoma
Arizona (Phoenix Memorial Hospital) - Metastatic adenocarcinoma, mucin-producing (Krukenberg tumor)
Arkansas, Little Rock - Endometrioid carcinoma, ovary
Colorado, Denver - Papillary serous carcinoma
Florida (Hospital Pathologists) - Adenocarcinoma, NOS
Florida (Monroe Regional Center) - Adenocarcinoma endometrioid
Florida (Winter Haven Hospital) - Papillary serous carcinoma
Georgia, Decatur - Endometrioid carcinoma
Illinois (Marion Memorial Hospital) - Endometrioid adenocarcinoma grade I
Indiana, Fort Wayne - Endometrioid carcinoma, ovary
Kansas (Coffeyville Regional Medical) - Endometrioid adenocarcinoma, ovary (grade II)
Maryland (National Naval Medical Center) - Endometrioid adenocarcinoma (12); Surface carcinoma, poorly differentiated (1)
Maryland (NIH Pathology Residents) - Endometrioid adenocarcinoma
Massachusetts (Brigham & Women's Hospital) - Malignant mixed mesodermal tumor (predominantly endometrioid adenocarcinoma)
Michigan (St. Joseph Mercy Hospital) - Endometrioid adenocarcinoma
Michigan (St. Mary's Mercy Hospital) - Sertoli-leydig tumor (1); Sertoli-leydig cell tumor (1)
Michigan (Spectrum Health) - Endometrioid adenocarcinoma FIGO 2 (1); Adenocarcinoma of ovary, endometrioid type (1)
Minnesota (United Hospital) - Adenocarcinoma
Nebraska (Good Samaritan Hospital) - Mucinous carcinoma
Nebraska (University of Nebraska Medical Center) - Endometrioid adenocarcinoma of the ovary
New York (IMPATH, Inc.) - Endometrioid carcinoma of ovary
New York (Nassau University Medical Center) - Endometrioid adenocarcinoma, ovary
New York (Westchester Medical Center) - Metastatic adenocarcinoma to ovary - probably GI primary
Pennsylvania (Allegheny General Hospital - Adenocarcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Endometrioid carcinoma/ovary
Pennsylvania (Magee Women's Hospital) - Mixed mullerian tumor
Texas, Houston - Endometrioid adenocarcinoma
Texas, Lubbock - Endometrioid adenocarcinoma
Texas, San Antonio - Endometrioid carcinoma
Texas (Scott & White Memorial Hospital) - Endometrioid carcinoma
Utah (St. Mark's Hospital) - Adenocarcinoma
Washington, DC - Carcinosarcoma
Washington (Madigan Army Medical Center) - Endometrioid adenocarcinoma
West Virginia (West Virginia University) - Endometrioid adenocarcinoma from fallopian tube
Canada (CUSE, Site Fleurimont) - Mucous adenocarcinoma
Canada (Foothills Medical Center) - Endometrioid adenocarcinoma of the ovary
China (Sir Run Run Shaw Hospital) - Adenocarcinoma
Japan, Chiba - Serous carcinoma of fallopian tube
Japan (Hamamatsu University School of Medicine) - Endometrioid adenocarcinoma
Japan (Self Defense Hospital) - Endometrioid adenocarcinoma
Japan (Shiga University of Medical Science) - Malignant mixed mesodermal tumor
Puerto Rico (University of Puerto Rico) - Endometrioid adenocarcinoma
Spain (Policlinico Vigo, S.A.) - Mucin-rich endometrioid adenocarcinoma vs. adult granulosa cell tumor
The Netherlands, Amstelveen - Moderately differentiated (mucinous?) adenocarcinoma

Case 3 - Diagnosis:

Endometrioid adenocarcinoma, ovary

T-87000, M-8380/3

Case 3 - References:

Vercellini P, Scarfone G, Bolis G, et al. Site of Origin of Epithelial Ovarian Cancer: The Endometriosis Connection. *BJOG. 2000* Sep; 107(9):1155-1157.

Kempson RL, Hendrickson MR. Miscellaneous types of surface epithelial neoplasms. The well-differentiated end of the morphologic spectrum of endometrioid, clear-cell, and Brenner tumors and mixed epithelioid tumors of low malignant potential of mullerian type. Pathology (Phila). 1993;1(2):335-65.

Yonescu R, Currie JL, Hedrick L, et al. Chromosome Abnormalities in Primary Endometrioid Ovarian Carcinoma. *Cancer Genet Cytogenet.* 1996 Apr; 87(2):167-171.

Tornos C, Silva EG, Khorana SM, et al. High-stage Endometrioid Carcinoma of the Ovary. Prognostic Significance of Pure Versus Mixed Histologic Types. *Am J Surg Pathol.* 1994 Jul; 18(7):687-693.

McMeekin DS, Burger RA, Manetta A, et al. Endometrioid Adenocarcinoma of The Ovary and Its Relationship to Endometriosis. *Gynecol Oncol.* 1995 Oct; 59(1):81-86.

Case No. 4, Accession No. 27738 **October 2002**

Escondido - Struma ovarii
Glendale - Struma carcinoid
Loma Linda - Stroma ovarii
Modesto (Yosemite Pathology Medical Group) - Strumal carcinoid
Orange (UCI Medical Center) - Struma carcinoid, ovary
Sacramento (UC Davis Medical Center) - Struma ovarii and carcinoid
San Diego (Naval Medical Center) - Strumal carcinoid
Arizona (Phoenix Memorial Hospital) - Stromal carcinoid tumor
Arkansas, Little Rock - Strumal carcinoid, ovary
Colorado, Denver - Struma ovarii
Florida (Hospital Pathologists) - Ovarian strumal carcinoid
Florida, (Monroe Regional Center) - Struma ovarii with focal carcinoid tumor
Florida (Winter Haven Hospital) - Strumal carcinoid
Georgia, Decatur - Strumal carcinoid
Illinois (Marion Memorial Hospital) - Struma ovarii
Indiana, Fort Wayne - Strumal carcinoid neoplasm, ovary
Kansas (Coffeyville Regional Medical) - Struma ovarii
Maryland (National Naval Medical Center) - Strumal carcinoid (6); Carcinoid tumor arising in struma ovarii (7)
Maryland (NIH Pathology Residents) - Strumal carcinoid
Massachusetts (Brigham & Women's Hospital) - Strumal carcinoid tumor
Michigan (St. Joseph Mercy Hospital) - Strumal carcinoid
Michigan (St. Mary's Mercy Hospital) - Struma ovarii (1); Strumal carcinoid (1)
Michigan (Spectrum Health) - Strumal carcinoid (1); Struma ovarii (1)
Minnesota (United Hospital) - Follicular tumor – rule out carcinoma
Nebraska (Good Samaritan Hospital) - Strumal carcinoid
Nebraska (University of Nebraska Medical Center) - Strumal carcinoid
New York (IMPATH, Inc.) - Stromal carcinoid tumor of ovary
New York (Nassau University Medical Center) - Strumal carcinoid, ovary
New York (Westchester Medical Center) - Struma carcinoid of ovary
Pennsylvania (Allegheny General Hospital - Combined struma ovarii & carcinoid
Pennsylvania (Conemaugh Memorial Medical Center) - Struma ovarii
Pennsylvania (Magee Women's Hospital) - Struma ovarii
Texas, Houston - Struma carcinoid
Texas, Lubbock - Struma carcinoid
Texas, San Antonio - Strumal carcinoid
Texas (Scott & White Memorial Hospital) - Struma ovarii
Utah (St. Mark's Hospital) - Strumal carcinoid
Washington, DC - Strumal carcinoid
Washington (Madigan Army Medical Center) - Monodermal teratoma (struma ovarii)
West Virginia (West Virginia University) - Thyroid adenoma from stroma ovarii
Canada (CUSE, Site Fleurimont) - Struma ovarii

Canada (Foothills Medical Center) - Strumal carcinoid
China (Sir Run Run Shaw Hospital) - Strumal carcinoid
Japan, Chiba - Strumal carcinoid tumor of ovary
Japan (Hamamatsu University School of Medicine) - Strumal carcinoid
Japan (Self Defense Hospital) - Strumal carcinoid
Japan (Shiga University of Medical Science) - Struma ovarii
Puerto Rico (University of Puerto Rico) - Strumal-carcinoid
Spain (Policlinico Vigo, S.A.) - Struma carcinoid
The Netherlands, Amstelveen - Struma ovarii (monodermal teratoma)

Case 4 - Diagnosis:

Strumal carcinoid (combined struma ovarii and carcinoid), ovary
T-87000, M-90911

Case 4 - References:

Nicolescu PG, Tasca C, Sajin M. Histopathologic Aspects in a Case of Strumal Carcinoid (Struma Ovarii and Carcinoid). *Morphol Embryol (Bucur)*. 1990 Apr-Jun; 36(2):125-127.

Robboy SJ, Scully RE. Strumal Carcinoid of the Ovary: An Analysis of 50 Cases of a Distinctive Tumor Composed of Thyroid Tissue and Carcinoid. *Cancer*. 1980 Nov 1; 46(9):2019-2034.

Takemori M, Nishimura R, Sugimura K, et al. Ovarian Strumal Carcinoid with Markedly High Serum Levels of Tumor Markers. *Gynecol Oncol*. 1995 Aug; 58(2):266-269.

Greco MA, LiVolsi VA, Pertschuk LP, et al. Strumal Carcinoid of the Ovary: An Analysis of its Components. *Cancer*. 1979 Apr; 43(4):1380-1388.

Snyder RR, Tavassoli FA. Ovarian strumal carcinoid: immunohistochemical, ultrastructural, and clinicopathologic observations. *Int J Gynecol Pathol*. 1986; 5(3):187-201.

Case No. 5, Accession No. 29537 **October 2002**

Escondido - Embryonal carcinoma with syncytiotrophoblasts
Glendale - Non-seminomatous germ cell tumor – choriocarcinoma, embryonal carcinoma
Loma Linda - Seminoma with trophoblastic elements
Modesto (Yosemite Pathology Medical Group) - Embryonal carcinoma
Orange (UCI Medical Center) - Malignant mixed germ cell tumor
Sacramento (UC Davis Medical Center) - Mixed germ cell tumor
San Diego (Naval Medical Center) - Mixed germ cell neoplasia with embryonal, teratoma, choriocarcinoma and YST (yolk sac tumor)
Arizona (Phoenix Memorial Hospital) - Mixed germ cell neoplasm (predominantly embryonal carcinoma, 2nd component of choriocarcinoma)
Arkansas, Little Rock - Mixed germ cell tumor (choriocarcinoma + embryonal carcinoma) + immature teratoma
Colorado, Denver - Choriocarcinoma
Florida (Hospital Pathologists) - Mixed germ cell tumor with choriocarcinoma
Florida (Monroe Regional Center) - Mixed germ cell tumor with choriocarcinoma & embryonal carcinoma
Florida (Winter Haven Hospital) - Choriocarcinoma with embryonal carcinoma
Georgia, Decatur - Mixed germ cell tumor with choriocarcinoma & embryonal carcinoma and associated intratubular germ cell neoplasia
Illinois (Marion Memorial Hospital) - Embryonal carcinoma with syncytiotrophoblasts
Indiana, Fort Wayne - Mixed germ cell neoplasm of testis embryonal, intratubular embryonal/yolk sac areas/choriocarcinoma
Kansas (Coffeyville Regional Medical) - Embryonal carcinoma with choriocarcinoma component
Maryland (National Naval Medical Center) - Malignant mixed germ cell tumor (13)
Maryland (NIH Pathology Residents) - Mixed germ cell: mixed teratoid, embryonal and choriocarcinoma
Massachusetts (Brigham & Women's Hospital) - Choriocarcinoma
Michigan (St. Joseph Mercy Hospital) - Mixed germ cell tumor with features of choriocarcinoma and embryonal carcinoma
Michigan (St. Mary's Mercy Hospital) - Embryonal carcinoma plus choriocarcinoma (1); Embryonal carcinoma (1)
Michigan (Spectrum Health) - Embryonal carcinoma (1); Teratoma with mixed non-seminomatous germ cell tumor (embryonal carcinoma, choriocarcinoma, yolk sac tumor) (1)
Minnesota (United Hospital) - Choriocarcinoma
Nebraska (Good Samaritan Hospital) - Mixed germ cell tumor
Nebraska (University of Nebraska Medical Center) - Malignant mixed germ cell tumor (embryonal carcinoma, choriocarcinoma, and mature teratoma)
New York (IMPATH, Inc.) - Choriocarcinoma/embryonal carcinoma of testis
New York (Nassau University Medical Center) - Malignant mixed germ cell tumor, testicle

New York (Westchester Medical Center) - Mixed germ cell tumor probably arising in a teratoma
Pennsylvania (Allegheny General Hospital - Mixed germ cell tumor – chorio & embryonal
Pennsylvania (Conemaugh Memorial Medical Center) - Mixed germ cell tumor? embryonal carcinoma
Pennsylvania (Magee Women's Hospital) - Teratocarcinoma – embryonal/synctiotrophoblast
Texas, Houston - Malignant mixed germ cell tumor
Texas, Lubbock - Mixed non-seminomatous germ cell tumor: 60% embryonal carcinoma; 20% choriocarcinoma; 20% teratoma
Texas, San Antonio - Mixed GCT (germ cell tumor)
Texas (Scott & White Memorial Hospital) - Non seminomatous germ cell tumor with choriocarcinoma
Utah (St. Mark's Hospital) - Mixed non-seminomatous germ cell tumor
Washington, DC - Embryonal carcinoma
Washington (Madigan Army Medical Center) - Malignant germ cell tumor, favor seminoma (anaplastic)
West Virginia (West Virginia University) - Malignant mixed germ cell tumor
Canada (CUSE, Site Fleurimont) - Choriocarcinoma
Canada (Foothills Medical Center) - Nonseminomatous germ cell tumor, embryonal carcinoma
China (Sir Run Run Shaw Hospital) - Mixed germ cell tumor (embryonal carcinoma and choriocarcinoma)
Japan, Chiba - Embryonal carcinoma of testis
Japan (Hamamatsu University School of Medicine) - Mixed germ cell, embryonal carcinoma + choriocarcinoma
Japan (Self Defense Hospital) - Nonseminomatous germ cell tumor (embryonal carcinoma, choriocarcinoma)
Japan (Shiga University of Medical Science) - Mixed germ cell tumor
Puerto Rico (University of Puerto Rico) - Germ cell tumor: choriocarcinoma/embryonal carcinoma?
Spain (Policlinico Vigo, S.A.) - Choriocarcinoma + embryonal carcinoma + teratoma
The Netherlands, Amstelveen - Non-seminomatous germ cell tumor: embryonal carcinoma with syncytiotrophoblastic cells and intratubular germ cell neoplasia unspecified

Case 5 - Diagnosis:

Mixed germ cell tumor (embryonal carcinoma and seminoma) with syncytial trophoblastic elements, testis

T-78000, M-90613

Case 5 - References:

Lee AH, Mead GM, Theaker JM. The value of central histopathological review of testicular tumours before treatment. *BJU Int.* 1999 Jul; 84(1):75-78.

Baldet P. [Germ Cell Tumors of Testis, Current Concepts] *Ann Pathol.* 2001 Oct; 21(5):399-410.

Yuasa T, Yoshiki T, Ogawa O, et al. Detection of Alpha-Fetoprotein mRNA in Seminoma. *J Androl.* 1999 May-Jun; 20(3):336-340.

Ro JY, Amato RJ, Ayala AG. What Does the Pathology Report Really Mean? *Semin Urol Oncol.* 1996 Feb; 14(1):2-7.

Rhomberg W, Schmoll HJ, Schneider B. High Frequency of Metalworkers Among Patients with Seminomatous Tumors of the Testis: A Case-Control Study. *Am J Ind Med.* 1995 Jul; 28(1):79-87.

Yuasa T, Okamoto K, Kawakami T, et al. Expression Patterns of Cancer Testis Antigens in Testicular Germ Cell Tumors and Adjacent Testicular Tissue. *J Urol.* 2001 May; 165(5):1790-1794.

Case No. 6, Accession No. 29238 — October 2002

Escondido - Synovial sarcoma
Glendale - Synovial sarcoma
Loma Linda - Fully malignant tumor – (hemangiopericytoma)
Modesto (Yosemite Pathology Medical Group) - Clear cell carcinoma
Orange (UCI Medical Center) - Synovial sarcoma, knee
Sacramento (UC Davis Medical Center) - High grade sarcoma, synovial sarcoma vs. leiomyosarcoma
San Diego (Naval Medical Center) - Biphasic synovial sarcoma
Arizona (Phoenix Memorial Hospital) - Synovial sarcoma, biphasic
Arkansas, Little Rock - Synovial sarcoma
Colorado, Denver - Rhabdomyosarcoma
Florida (Hospital Pathologists) - Fibrous synovial sarcoma, monophasic
Florida (Monroe Regional Center) - Synovial sarcoma
Florida (Winter Haven Hospital) - Malignant hemangiopericytoma
Georgia, Decatur - Synovial sarcoma, biphasic type
Illinois (Marion Memorial Hospital) - Monophasic synovial sarcoma
Indiana, Fort Wayne - Round cell sarcoma – probable monophasic synovial sarcoma
Kansas (Coffeyville Regional Medical) - Synovial sarcoma
Maryland (National Naval Medical Center) - Synovial sarcoma (13)
Maryland (NIH Pathology Residents) - Synovial sarcoma, biphasic

Massachusetts (Brigham & Women's Hospital) - Poorly differentiated synovial sarcoma
Michigan (St. Joseph Mercy Hospital) - Synovial sarcoma
Michigan (St. Mary's Mercy Hospital) - Hemangiopericytoma (1); Synovial sarcoma (1)
Michigan (Spectrum Health) - Synovial sarcoma(2)
Minnesota (United Hospital) - Synovial sarcoma
Nebraska (Good Samaritan Hospital) - Synovial sarcoma
Nebraska (University of Nebraska Medical Center) - Synovial sarcoma, monophasic
New York (IMPATH. Inc.) - Synovial sarcoma
New York (Nassau University Medical Center) - Monophasic synovial sarcoma, leg
New York (Westchester Medical Center) - Monophasic synovial sarcoma
Pennsylvania (Allegheny General Hospital - Poorly differentiated synovial sarcoma
Pennsylvania (Conemaugh Memorial Medical Center) - Sarcoma favor monophasic synovial/Ewing? fibrosarcoma
Pennsylvania (Magee Women's Hospital) - Synovial sarcoma
Texas, Houston - Synovial sarcoma
Texas, Lubbock - Synoviosarcoma
Texas, San Antonio - HG sarcoma, possibly synovial sarcoma
Texas (Scott & White Memorial Hospital) - Monophasic synovial sarcoma
Utah (St. Mark's Hospital) - Synovial sarcoma
Washington, DC - Synovial sarcoma
Washington (Madigan Army Medical Center) - Synovial sarcoma
West Virginia (West Virginia University) - Synovial sarcoma - monophasic
Canada (CUSE, Site Fleurimont) - MPNET (Malignant peripheral neuroectodermal tumor)
Canada (Foothills Medical Center) - Synovial sarcoma
China (Sir Run Run Shaw Hospital) - Malignant hemangiopericytoma/synovial sarcoma
Japan, Chiba - Hemangiopericytoma
Japan (Hamamatsu University School of Medicine) - Synovial sarcoma
Japan (Self Defense Hospital) - Synovial carcinoma
Japan (Shiga University of Medical Science) - Synovial sarcoma
Puerto Rico (University of Puerto Rico) - Synovial sarcoma
Spain (Policlinico Vigo, S.A.) - Synovial sarcoma
The Netherlands, Amstelveen - Synoviosarcoma

Case 6 - Diagnosis:

Hemangiopericytoma, leg

Director's note: Our apologies for not including the immunostains in the history. This tumor was positive for CD34, and failed to stain for cytokeratin. (drc)

T-Y9400, M-9150/1

Case 6 - References:

Calvo Cascallo J, Mundi Salvado N, Cardona Fontanet M, et al. [Hemangiopericytoma of the Thigh. Report of a Case] *Angiologia.* 1993 May-Jun; 45(3):103-106.

Kato N, Kato S, Ueno H. Hemangiopericytoma: Characteristic Features Observed by Magnetic Resonance Imaging and Angiography. *J Dermatol.* 1990 Nov; 17(11):701-706.

Filippova NA. [Electron Microscopy in the Diagnosis of Soft Tissue Angiogenic Tumors]. *Arkh Patol.* 1985; 47(9):60-67.

Compagno J. Hemangiopericytoma-Like Tumors of the Nasal Cavity: A Comparison with Hemangiopericytoma of Soft Tissues. *Laryngoscope.* 1978 Mar; 88(3):460-469.

McMaster MJ, Soule EH, Ivins JC. Hemangiopericytoma. A clinicopathologic study and long-term followup of 60 patients. *Cancer.* 1975 Dec; 36(6):2232-2244

Case No. 7, Accession No. 27399 **October 2002**

Escondido - Meningioma
Glendale - Atypical meningioma
Loma Linda - Meningioma
Modesto (Yosemite Pathology Medical Group) - Meningioma
Orange (UCI Medical Center) - Meningioma, dura
Sacramento (UC Davis Medical Center) - Meningioma
San Diego (Naval Medical Center) - Atypical meningioma
Arizona (Phoenix Memorial Hospital) - Meningioma
Arkansas, Little Rock - Meningioma
Colorado, Denver - Meningioma

Florida (Hospital Pathologists) - Meningioma
Florida (Monroe Regional Center) - Schwannoma
Florida (Winter Haven Hospital) - Atypical meningiothelial meningioma
Georgia, Decatur - Meningioma, transitional type
Illinois (Marion Memorial Hospital) - Atypical meningioma
Indiana, Fort Wayne - Meningioma, (L) temporoparietal area
Kansas (Coffeyville Regional Medical) - Meningiothelial meningioma
Maryland (National Naval Medical Center) - Meningioma (13)
Maryland (NIH Pathology Residents) - Meningiothelial meningioma
Massachusetts (Brigham & Women's Hospital) - Meningioma
Michigan (St. Joseph Mercy Hospital) - Meningioma
Michigan (St. Mary's Mercy Hospital) - Meningioma (2)
Michigan (Spectrum Health) - Meningioma (2)
Minnesota (United Hospital) - Meningioma
Nebraska (Good Samaritan Hospital) - Meningioma
Nebraska (University of Nebraska Medical Center) - Atypical meningioma (grade II)
New York (IMPATH, Inc.) - Meningiothelial meningioma
New York (Nassau University Medical Center) - Meningiothelial meningioma, dura
New York (Westchester Medical Center) - Meningioma
Pennsylvania (Allegheny General Hospital - Meningioma
Pennsylvania (Conemaugh Memorial Medical Center) - Atypical meningioma
Pennsylvania (Magee Women's Hospital) - Meningioma
Texas, Houston - Meningioma
Texas, Lubbock - Meningiotheliomatous meningioma
Texas, San Antonio - Meningioma, atypical
Texas (Scott & White Memorial Hospital) - Meningioma
Utah (St. Mark's Hospital) - Meningioma
Washington, DC - Meningioma
Washington (Madigan Army Medical Center) - Meningioma
West Virginia (West Virginia University) - Atypical meningioma
Canada (CUSE, Site Fleurimont) - Meningioma
Canada (Foothills Medical Center) - Meningioma, transitional type
China (Sir Run Run Shaw Hospital) - Meningioma
Japan, Chiba - Malignant meningioma, meningiotheliomatous type
Japan (Hamamatsu University School of Medicine) - Meningioma
Japan (Self Defense Hospital) - Atypical meningioma
Japan (Shiga University of Medical Science) - Meningioma
Puerto Rico (University of Puerto Rico) - Atypical meningioma (WHO grade II)
Spain (Policlinico Vigo, S.A.) - Atypical meningioma
The Netherlands, Amstelveen - Meningiothelial meningioma

Case 7 - Diagnosis:

Meningioma

T-X2000, M-9530/0

Case 7 - References:

Konstantinidou A, Korkolopoulou P, Patsouris E, et al. Apoptosis Detected with Monoclonal Antibody to Single-Stranded DNA is a Predictor of Recurrence in Intracranial Meningiomas. *J Neurooncol*. 2001 Oct; 55(1):1-9.

Stafford SL, Pollock BE, Foote RL, et al. Meningioma Radiosurgery: Tumor Control, Outcomes, and Complications Among 190 Consecutive Patients. *Neurosurgery*. 2001 Nov; 49(5):1029-1037; discussion 1037-1038.

Simon M, Park TW, Koster G, et al. Alterations of INK4a(p16-p14ARF)/INK4b(p15) Expression and Telomerase Activation in Meningioma Progression. *J Neurooncol*. 2001 Dec; 55(3):149-158.

Russ E, Castillo M. ATypical Meningioma Spreading Via the Perivascular Spaces. *AJR Am J Roentgenol*. 2002 Mar; 178(3):768-769.

Prayson RA, Chowdhary S, Woodhouse S, et al. Collision of a Syncytial Meningioma and Malignant Astrocytoma. *Ann Diagn Pathol*. 2002 Feb; 6(1):44-48.

Case No. 8, Accession No. 29483 **October 2002**

Escondido - Xanthogranuloma
Glendale - PVNS (Pigmented villonodular synovitis)
Loma Linda - Fibrohistiocytoma (villonodular synovitis)
Modesto (Yosemite Pathology Medical Group) - Liposarcoma
Orange (UCI Medical Center) - Localized giant cell tumor of tendon sheath
Sacramento (UC Davis Medical Center) - Tendinous xanthoma
San Diego (Naval Medical Center) - Fibrohistiocytic tumor, favor benign
Arizona (Phoenix Memorial Hospital) - Xanthomatous fibrous histiocytoma
Arkansas, Little Rock - Inflammatory myofibroblastic tumor
Colorado, Denver - Xanthogranuloma
Florida (Hospital Pathologists) - Fibrous histiocytoma (giant cell tumor) of tendon sheath
Florida (Monroe Regional Center) - Fibrous histiocytoma
Florida (Winter Haven Hospital) - Xanthogranulomatous inflammation, rule out infection
Georgia, Decatur - Tenosynovial giant cell tumor
Illinois (Marion Memorial Hospital) - Fibrous histiocytoma
Indiana, Fort Wayne - Deep fibrous histiocytoma of soft tissue
Kansas (Coffeyville Regional Medical) - Nodular fasciitis with fat necrosis
Maryland (National Naval Medical Center) - Tuberous xanthoma (3); Inflammatory pseudotumor (1); Inflammatory MFH (malignant fibrous histiocytoma) (2)
Maryland (NIH Pathology Residents) - Diffuse giant cell tumor of tendon sheath
Massachusetts (Brigham & Women's Hospital) - Deep fibrous histiocytoma
Michigan (St. Joseph Mercy Hospital) - Fibrous histiocytoma (2), Inflammatory myofibroblastic tumor (1)
Michigan (St. Mary's Mercy Hospital) - Tenosynovial giant cell tumor (1); Diffuse giant cell tumor of tendon sheath (1)
Michigan (Spectrum Health) - Malignant melanoma of soft part (1); Malignant fibrous histiocytoma (1)
Minnesota (United Hospital) - Low grade malignant fibrous histiocytoma
Nebraska (Good Samaritan Hospital) - Deep fibrous histiocytoma
Nebraska (University of Nebraska Medical Center) - Benign fibrous histiocytoma
New York (IMPATH, Inc.) - Deep benign fibrous histiocytoma vs. ? schwannoma
New York (Nassau University Medical Center) - Xanthoma, left arm
New York (Westchester Medical Center) - Giant cell tumor of tendon sheath
Pennsylvania (Allegheny General Hospital) - Atypical fibrous histiocytoma
Pennsylvania (Conemaugh Memorial Medical Center) - Fibrous histiocytoma
Pennsylvania (Magee Women's Hospital) - Xanthoma of tendon sheath
Texas, Houston - Deep fibrous histiocytoma
Texas, Lubbock - Fibrous histiocytoma
Texas, San Antonio - Tenosynovial GCT (giant cell tumor)
Texas (Scott & White Memorial Hospital) - Cellular tenosynovial giant cell tumor
Utah (St. Mark's Hospital) - Fibrous histiocytoma
Washington, DC - Pigmented villonodular synovitis
Washington (Madigan Army Medical Center) - Round cell liposarcoma
West Virginia (West Virginia University) - Benign fibrous histiocytoma
Canada (CUSE, Site Fleurimont) - MFH (malignant fibrous histiocytoma) inflammatory type
Canada (Foothills Medical Center) - Giant cell tumor of tendon sheath
China (Sir Run Run Shaw Hospital) - Fibrous histiocytoma
Japan, Chiba - Fibrous histiocytoma
Japan (Hamamatsu University School of Medicine) - Benign fibrous histiocytoma
Japan (Self Defense Hospital) - Xanthogranulomatous malignant fibrous histiocytoma
Japan (Shiga University of Medical Science) - Inflammatory myofibroblastic tumor
Puerto Rico (University of Puerto Rico) - Benign fibrous histiocytoma/pigmented villonodular synovitis
Spain (Policlinico Vigo, S.A.) - Xanthomatous malignant fibrous histiocytoma vs. giant cell tumor of tendon sheath
The Netherlands, Amstelveen - Malignant melanoma (metastatic)

Case 8 - Diagnosis:

Pigmented villonodular synovitis (diffuse tenosynovial giant cell tumor), arm
T-Y8000, M-47830

Consultation: Dr. Sharon Weiss (Emory University), "Tenosynovial giant cell tumor."

Case 8 - References:

Granowitz SP, D'Antonio J, Mankin HL. The Pathogenesis and Long-term End Results of Pigmented Villonodular Synovitis. *Clin Orthop*. 1976 Jan-Feb; (114):335-351.

Arthaud JB. Pigmented Nodular Synovitis: Report of 11 Lesions in Non-Articular Locations. *Am J Clin Pathol.* 1972 Nov; 58(5):511-517.
Galinski AW, Vlahos MV. Pigmented Villonodular Synovitis in Podiatric Medicine. *J Am Podiatry Assoc.* 1976 JUL; 66(7):471-476.
Adamson BE, Lucas GL. Multiple Recurrence of Digital Pigmented Villonodular Tenosynovitis: A Case Report. *J Hand Surg [Am].* 1985 Mar; 10(2):278-280.

Case No. 9, Accession No. 29478 **October 2002**

Escondido - Pancreatic endocrine carcinoma
Glendale - Pancreatic endocrine tumor
Loma Linda - Carcinoid
Modesto (Yosemite Pathology Medical Group) - Carcinoid
Orange (UCI Medical Center) - Islet cell tumor
Sacramento (UC Davis Medical Center) - Pancreatic neuroendocrine tumor
San Diego (Naval Medical Center) - Paraganglioma
Arizona (Phoenix Memorial Hospital) - Malignant paraganglioma
Arkansas, Little Rock - Pancreatic endocrine cell neoplasm
Colorado, Denver - Carcinoid
Florida (Hospital Pathologists) - Neuroendocrine carcinoma
Florida (Monroe Regional Center) - Paraganglioma
Florida (Winter Haven Hospital) - Extra-adrenal paraganglioma
Georgia, Decatur - Neuroendocrine carcinoma, ?malignant paraganglioma
Illinois (Marion Memorial Hospital) - Phaeochromocytoma
Indiana, Fort Wayne - Carcinoid neoplasm
Kansas (Coffeyville Regional Medical) - Paraganglioma
Maryland (National Naval Medical Center) - Paraganglioma (10); Neuroendocrine carcinoma (2)
Massachusetts (Brigham & Women's Hospital) - Neuroendocrine carcinoma
Michigan (St. Joseph Mercy Hospital) - Pheochromocytoma (2); Islet cell tumor (1)
Michigan (St. Mary's Mercy Hospital) - Paraganglioma (2)
Michigan (Spectrum Health) - Pancreatic endocrine tumor (1); Neuroendocrine carcinoma (1)
Minnesota (United Hospital) - Acinar vs. pancreatic islet cell tumor
Nebraska (Good Samaritan Hospital) - Extra-adrenal intrabdominal paraganglioma
Nebraska (University of Nebraska Medical Center) - Neuroendocrine tumor of the pancreas
New York (IMPATH, Inc.) - Islet cell tumor of the pancreas
New York (Nassau University Medical Center) - Malignant paraganglioma, retroperitoneum
New York (Westchester Medical Center) - Neuroendocrine carcinoma of pancreas
Pennsylvania (Allegheny General Hospital - Neuroendocrine neoplasm
Pennsylvania (Conemaugh Memorial Medical Center) - Malignant neuroendocrine tumor/paraganglioma
Pennsylvania (Magee Women's Hospital) - Neuroendocrine carcinoma – islet cell
Texas, Houston - Paraganglioma
Texas, Lubbock - Islet cell tumor
Texas, San Antonio - Neuroendocrine carcinoma
Texas (Scott & White Memorial Hospital) - Neuroendocrine carcinoma
Utah (St. Mark's Hospital) - Malignant endocrine tumor, NOS
Washington, DC - Pancreatic endocrine tumor
Washington (Madigan Army Medical Center) - Paraganglioma, malignant
West Virginia (West Virginia University) - Extrarenal paraganglioma
Canada (CUSE, Site Fleurimont) - Paraganglioma
Canada (Foothills Medical Center) - Pancreatic endocrine neoplasm
China (Sir Run Run Shaw Hospital) - Malignant paraganglioma
Japan, Chiba - Paraganglioma
Japan (Hamamatsu University School of Medicine) - Endocrine carcinoma, intermediate
Japan (Self Defense Hospital) - Paraganglioma
Japan (Shiga University of Medical Science) - Paraganglioma malignant
Puerto Rico (University of Puerto Rico) - Malignant paraganglioma
Spain (Policlinico Vigo, S.A.) - Malignant carcinoid vs. neuroendocrine tumor
The Netherlands, Amstelveen - Endocrine carcinoma from the pancreas

Case 9 - Diagnosis:

Neuroendocrine carcinoma, probably of pancreatic origin

T-59000, M-8010/3

Case 9 - References:

Hainsworth JD, Johnson DH, Greco FA. Poorly Differentiated Neuroendocrine Carcinoma of Unknown Primary Site. A Newly Recognized Clinicopathologic Entity. *Ann Intern Med.* 1988 Sep 1; 109(5):364-371.

Kulaksiz H, Eissele R, Rossler D, et al. Identification of Somatostatin Receptor Subtypes 1, 2A, 3, and 5 in Neuroendocrine Tumours with Subtype Specific Antibodies. *Gut.* 2002 Jan; 50(1):52-60.

Owen NJ, Sohaib SA, Peppercorn PD, et al. MRI of Pancreatic Neuroendocrine Tumours. *Br J Radiol.* 2001 Oct; 74(886):968-973.

Mullan MH, Gauger PG, Thompson NW. Endocrine Tumours of the Pancreas: Review and Recent Advances. *Aust N Z J Surg.* 2001 Aug; 71(8):475-482.

Case No. 10, Accession No. 29542 — October 2002

Escondido - Liposarcoma
Glendale - Well-differentiated liposarcoma
Loma Linda - Low grade myxoliposarcoma vs. benign myofibrolipoma
Modesto (Yosemite Pathology Medical Group) - Sclerosing liposarcoma
Orange (UCI Medical Center) - Well-differentiated liposarcoma, left flank
Sacramento (UC Davis Medical Center) - Well-differentiated liposarcoma
San Diego (Naval Medical Center) - Sclerosing liposarcoma
Arizona (Phoenix Memorial Hospital) - Liposarcoma, myxoid and sclerosing, well-differentiated
Arkansas, Little Rock - Well differentiated liposarcoma
Colorado, Denver - Myxoid liposarcoma
Florida (Hospital Pathologists) - Myxoid liposarcoma
Florida (Monroe Regional Center) - Well differentiated liposarcoma
Florida (Winter Haven Hospital) - Atypical lipoma
Georgia, Decatur - Well differentiated liposarcoma
Illinois (Marion Memorial Hospital) - Atypical lipomatous tumor
Indiana, Fort Wayne - Well differentiated myxoid liposarcoma
Kansas (Coffeyville Regional Medical) - Atypical lipomatous tumor
Maryland (National Naval Medical Center) - Spindle cell lipoma (13)
Maryland (NIH Pathology Residents) - Liposarcoma, well differentiated
Massachusetts (Brigham & Women's Hospital) - Atypical lipomatous tumor
Michigan (St. Joseph Mercy Hospital) - Well differentiated liposarcoma
Michigan (St. Mary's Mercy Hospital) - Chondroid lipoma (2)
Michigan (Spectrum Health) - Myxoid liposarcoma (1); Liposarcoma, lipoma-like (1)
Minnesota (United Hospital) - Liposarcoma
Nebraska (Good Samaritan Hospital) - Well differentiated liposarcoma
Nebraska (University of Nebraska Medical Center) - Well differentiated liposarcoma, sclerosing variant
New York (IMPATH, Inc.) - Well differentiated sclerosing liposarcoma
New York (Nassau University Medical Center) - Myxoid liposarcoma, flank
New York (Westchester Medical Center) - Myxoliposarcoma
Pennsylvania (Allegheny General Hospital - Sclerosing well differentiated liposarcoma
Pennsylvania (Conemaugh Memorial Medical Center) - Well differentiated liposarcoma/atypical lipoma/myomatous liposarcoma
Pennsylvania (Magee Women's Hospital) - Atypical lipoma
Texas, Houston - Atypical lipoma
Texas, Lubbock - Myxoid liposarcoma
Texas, San Antonio - Liposarcoma, well differentiated
Texas (Scott & White Memorial Hospital) - Sclerosing well differentiated liposarcoma
Utah (St. Mark's Hospital) - Atypical angiomyxolipoma
Washington, DC - Myxoid liposarcoma
Washington (Madigan Army Medical Center) - Myxoid liposarcoma
West Virginia (West Virginia University) - Low-grade liposarcoma
Canada (CUSE, Site Fleurimont) - Myxoid lipoma
Canada (Foothills Medical Center) - Liposarcoma, well differentiated
China (Sir Run Run Shaw Hospital) - Lipoma-like liposarcoma
Japan, Chiba - Atypical lipomatous tumor
Japan (Hamamatsu University School of Medicine) - Pleomorphic lipoma
Japan (Self Defense Hospital) - Liposarcoma, (sclerosing type)

Japan (Shiga University of Medical Science) - Spindle cell lipoma
Puerto Rico (University of Puerto Rico) - Inflammatory pseudotumor /well differentiated liposarcoma
Spain (Policlinico Vigo, S.A.) - Pleomorphic lipoma vs. spindle cell lipoma
The Netherlands, Amstelveen - Lipomatous tumor (atypical lipoma)

Case 10 - Diagnosis:

Well differentiated sclerosing liposarcoma, flank

T-Y1310, M-88513

Case 10 - References:

Yang YJ, Damron TA, Cohen H, et al. Distinction of Well-Differentiated Liposarcoma from Lipoma in Two Patients with Multiple Well-Differentiated Fatty Masses. *Skeletal Radiol.* 2001 Oct; 30(10):584-589.

Laurino L, Furlanetto A, Orvieto E, et al. Well-Differentiated Liposarcoma (Atypical Lipomatous Tumors). *Semin Diagn Pathol.* 2001 Nov; 18(4):258-262.

Meis-Kindblom JM, Sjogren H, Kindblom LG, et al. Cytogenetic and Molecular Genetic Analyses of Liposarcoma and Its Soft Tissue Simulators: Recognition of New Variants and Differential Diagnosis. *Virchows Arch.* 2001 Aug; 439(2):141-151.

Pilotti S, Della Torre G, Mezzelani A, et al. The Expression of MDM2/CDK4 Gene Product in the Differential Diagnosis of Well Differentiated Liposarcoma and Large Deep-Seated Lipoma. *Br J Cancer.* 2000 Apr; 82(7):1271-1275.