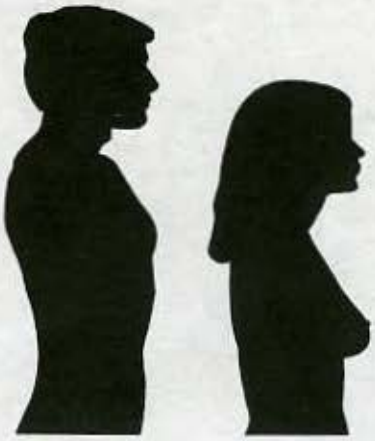
1165

CALIFORNIA
TUMOR TISSUE REGISTRY

"GENERAL PATHOLOGY"

Study Cases, Subscription A

November 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: Susan Murakami, M.D.
Pasadena, CA

Case No. 1 - November 2002

Tissue from: Intra-abdominal mass

Accession #29231

Clinical Abstract:

This 54-year-old male had a large intra-abdominal mass and had a history of a previous tumor in the same location.

Gross Pathology:

The 1704 gram firm mass was 20.0 x 13.5 x 13.0 cm. The cut surface was homogeneous, solid pale pink-tan.

Contributor: Conrad H. Lu, M.D.
San Gabriel, CA

Case No. 2 - November 2002

Tissue from: Right thigh

Accession #29523

Clinical Abstract:

A soft tissue mass developed in the thigh of this 38-year-old male. CT suggested the mass involved the vastus medialis.

Gross Pathology:

Within the 12 cm diameter excision specimen was a 9.0 x 5.5 x 4.7 cm tan mass, having a trabeculated cut surface.

Contributor: P. L. Morris, M.D.
Santa Barbara, CA

Case No. 3 - November 2002

Tissue from: Pancreas

Accession #29522

Clinical Abstract:

During work-up for metastases from a known prostatic carcinoma, this 76-year-old male had a CT scan which showed a pancreatic mass. A distal pancreatectomy with splenectomy was performed.

Gross Pathology:

Replacing a major portion of the tail of the pancreas was a 5.0 x 6.0 x 6.0 cm circumscribed solid lobulated mass. The cut surface varied from gray to pink-white with scattered areas of hemorrhage and cystic degeneration.

SPECIAL STUDIES (Outside Facility):

Synaptophysin	strong cytoplasmic staining
Chromogranin	positive cytoplasmic staining, both punctuate and diffuse

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Contributor: Kenneth A. Frankel, M.D.
Glendale, CA

Case No. 4 - November 2002

Tissue from: Left thigh

Accession #29454

Clinical Abstract:

A mass developed in the left thigh of this 57-year-old female.

Gross Pathology:

The 685 gram specimen included a 14.0 x 11.5 x 9.0 cm well-circumscribed ovoid piece of rubbery tan tissue with a homogeneous, edematous yellow-tan cut surface.

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

Case No. 5 - November 2002

Tissue from: Right thigh

Accession #29553

Clinical Abstract:

This 13-year-old female developed a mass in her right thigh, at the site where a mass had been excised seven years earlier.

Gross Pathology:

The 450 gram specimen consisted of a 15.0 x 12.0 x 5.0 cm portion of yellow-tan tissue containing streaks of red-brown muscle running through it.

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

Case No. 6 - November 2002

Tissue from: Scalp

Accession #29554

Clinical Abstract:

Over a six-month period, this 47-year-old male noticed an enlarging mass in his scalp. Two years earlier, he had had craniotomies and radiation therapy for a brain tumor.

Gross Pathology:

This 50 gram, 7.0 x 6.0 cm fragment of white-tan hair-bearing skin contained a 5.0 x 3.5 x 1.7 cm tumor within the dermis.

SPECIAL STUDIES:

GFAP	strongly positive
S-100	focally positive
HMB45	negative
EMA	positive
Vimentin	positive
Keratin (AE1/AE3)	weakly positive

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

Case No. 7 - November 2002

Tissue from: Ovary

Accession #29452

Clinical Abstract:

During a routine exam, this 26-year-old nulliparous female was noted to have a large pelvic mass. Menarche was at age 16. Subsequent menses were irregular and she reported being told that she had polycystic ovarian syndrome.

Gross Pathology:

The 1360 gram 21 cm diameter ovary was largely replaced by a yellow-beige to gray tumor with multiple cystic spaces.

Contributor: Peter L. Morris, M.D.
Santa Barbara, CA

Case No. 8 - November 2002

Tissue from: Left breast

Accession #29545

Clinical Abstract:

This 94-year-old female with senile dementia was found to have a mass in her left breast. A quadrantectomy was performed.

Gross Pathology:

The 3.2 x 3.0 x 2.5 cm pink-tan, well-circumscribed mass had a lobulated non-glistening cut surface.

Contributor: Joel A. Roth, M.D.
Summit, NJ

Case No. 9 - November 2002

Tissue from: Lung

Accession #29572

Clinical Abstract:

Because of flu-like symptoms and a cough, this 38-year-old female was given a course of antibiotics. A chest x-ray taken for follow-up revealed a right middle lobe mass.

Gross Pathology:

The resected right middle lobe contained a 7.0 x 6.5 x 4.5 cm subpleural well-circumscribed tan firm tumor that bulged into an adjacent bronchus. The cut surface was relatively homogeneous with a few small cystic spaces.

SPECIAL STUDIES (Outside facility):

Pancytokeratin	positive	Bcl2	negative
EMA	positive	S100	negative
Muscle specific actin	negative	Desmin	negative
CD34	negative	TTF-1	negative
Calretinin	negative	Chromogranin	negative
CD31	negative	LCA	negative

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

Case No. 10 - November 2002

Tissue from: Abdomen

Accession #29526

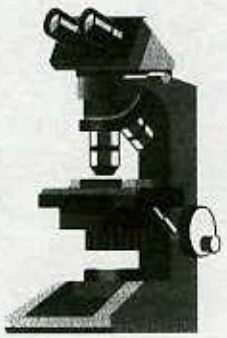
Clinical Abstract:

During work-up for a left intertrochantic femoral fracture, this 4-year-old male was found to have an 8 cm abdominal mass.

Gross Pathology:

The 6.0 x 4.5 x 3.5 cm red-brown mass had a multinodular yellow-tan cut surface with foci of hemorrhage.

CALIFORNIA
TUMOR TISSUE REGISTRY



GENERAL PATHOLOGY

Minutes – Subscription A

November, 2002

SUGGESTED READING (General Topics from Recent Literature):

SNOWMED CT Unlocks the Power of Clinical Data for Pathologists. Spackman KA, et al. *Lab Med* 2002; 3(33):263-264.

Diagnosis and Management of Smallpox. Breman JG, and Henderson DA, et al. *N. Engl J Med* 2002; 346(17):1300-1308.

Primer on Medical Genomics. Part II. Background Principles and Methods in Molecular Genetics. Tefferi A, Wieben ED, Dewald CW, et al. *Mayo Clin Proc* 2002; 77(8):785-808.

Primer on Medical Genomics. Part III. Microarray Experiments and Data Analysis. Bolander ME, Ansell SM, Wieben ED, et al. *Mayo Clin Proc* 2002; 77:927-940.

Inhibition of Human Telomerase in Immortal Human Cells Leads to Progessive Telomere Shortening and Cell Death. Herbert BS, Pitts AE, Baker SI, et al. *Proc Natl Acad Sci* USA 1999; 96:14276-14281.

Dendritic Cells as Immunologic Adjuvants for the Treatment of Cancer. Baggers J, Ratzinger G and Young TW. *J Clin Oncol* 2000; 18(23):3879-3882.

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Web site & Case of the Month: www.cttr.org

FILE DIAGNOSES

CTTR Subscription A November 2002

Case 1:

Intra-abdominal fibromatosis ("desmoid tumor"), abdomen
T-Y4100, M-76100

Case 2:

Solitary fibrous tumor, thigh
T-Y9100, M-03070

Case 3:

Pancreatic endocrine neoplasm, low grade
T-59000, M-80103

Case 4:

Mixed liposarcoma with myxoid/round cell and pleomorphic components, thigh
T-Y9100, M-88523

Case 5:

Intramuscular lipoma, thigh
T-Y9100, M-88560

Case 6:

Metastatic high grade glioma, scalp
T-Y0160, M-93803

Case 7:

Luteinized thecoma, ovary
T-87000, M-86000

Case 8:

Papillary carcinoma (intracystic and invasive), breast
T-04000, M-80503

Case 9:

Malignant neoplasm, favor undifferentiated carcinoma, lung
T-28000, M-80003

Case 10:

Ganglioneuroblastoma, abdomen
T-Y4300, M-94903

Arcadia (Garfield Hospital) - Desmoid tumor (2)
Bakersfield - Intra-abdominal fibromatosis
Baldwin Park (SCPMG Baldwin Park) - Desmoid tumor (intra-abdominal fibromatosis) (1); Desmoid tumor (2)
Bay Area - Desmoid tumor/aggressive fibromatosis (cannot rule out a myxofibrosarcoma) (4)
Fontana (Kaiser Permanente) - Fibromatosis
Long Beach - Desmoid tumor (8)
Moreno Valley/Riverside - Fibromatosis
Mountain View (El Camino Pathology Group) - Fibromatosis
Monterey (Community Hospital of Monterey Peninsula) - Intra-abdominal desmoid
Mountain View (El Camino Pathology Group) - Fibromatosis
Oakland (Kaiser Permanente) - Fibromatosis (2); GIST (1)
Orange (UCI Medical Center Residents) - Abdominal fibromatosis
San Diego (Naval Medical Center) - Abdominal fibromatosis
Santa Barbara (Santa Barbara Cottage Hospital) - Desmoid
Santa Rosa - Intra-abdominal desmoid (3)
Ventura (Unilab) - Intra-abdominal fibromatosis (2)
Alaska (Alaska Native Medical Center) - Intra-abdominal fibromatosis (desmoid) (2); Solitary fibrous tumor (1)
Arizona (Phoenix Memorial Hospital) - Desmoid (abdominal fibromatosis)
Florida (Baptist Hospital) - Desmoid tumor (3); Low grade fibromyxoid sarcoma (1); Desmoid, intra-abdominal (1)
Florida (Pathology Associates) - Solitary fibrous tumor
Florida (Winter Haven Hospital) - Desmoid tumor
Illinois (Great Lakes Naval Hospital) - Liposarcoma (2)
Indiana (Fort Wayne) - Intra-abdominal desmoid tumor
Maryland (Johns Hopkins Hospital Residents) - Mesenteric fibromatosis
Maryland (National Naval Medical Center) - Fibromatosis (8)
Maryland (Towson) - Intra-abdominal fibromatosis/desmoid tumor
Maryland (University of Maryland Residents) - Solitary fibrous tumor
Massachusetts (New England Medical Center Residents) - Fibromatosis
Michigan (Oakwood Hospital) - Fibromatosis
Michigan (St. Joseph Mercy Hospital) - Fibromatosis
Missouri (Truman Medical Center) - Desmoid
Nebraska (Creighton University School of Medicine Residents) - Solitary fibrous tumor (2); Leiomyoma of unknown malignant potential (4)
New York (Long Island Jewish Medical Center) - Desmoid tumor
New York (Nassau University Medical Center) - Fibromatosis, intra-abdominal region
New York (New York Medical College) - Desmoid tumor
New York (Stony Brook University Hospital Residents) - Desmoid fibromatosis, intra-abdominal
North Carolina (Mountain Area) - Intra-abdominal fibromatosis (2); Fibromatosis (2)
Pennsylvania (Allegheny General Hospital) - Intra-abdominal fibromatosis "desmoid tumor"
Pennsylvania (Memorial Medical Center Residents) - Intra-abdominal fibromatosis/desmoid
Pennsylvania (UPMC Pathology) - Desmoid tumor
Puerto Rico (University of Puerto Rico) - Inflammatory pseudotumor
Texas (Propath Services) - Desmoid tumor (2)
Texas (Scott & White Memorial Hospital) - Intra-abdominal fibromatosis
West Virginia (Greenbrier Valley Medical Center) - Intra-abdominal fibromatosis
Australia (Royal Prince Alfred Hospital) - Desmoid tumor
Canada (Foothills Medical Center) - Desmoid
Hong Kong (Hong Kong Baptist Hospital) - Solitary fibrous tumor
Japan (Yamanashi Medical University) - Desmoid (3)
Qatar (Hamad Medical Corporation) - Fibromatosis (intra-abdominal desmoid)

DIAGNOSIS:

Intra-abdominal fibromatosis ("desmoid tumor"), abdomen
T-Y4100, M-76100

REFERENCES:
Shekitka, KM, Richards RC, Rogers SW and Gardner Ej. Spontaneous Mesenteric Fibromatosis in Gardner's Syndrome. *Cancer* 1981; 47(3):597-601.
Burke AP, Sobin LH, Shekikit KM, et al. Intra-Abdominal Fibromatosis. A Pathologic Analysis of 130 Tumors with Comparison of Clinical Subgroups. *Am J Surg Pathol* 1990; 14(4):335-341.
Jones JT, Jagelman DG, Fazio VW, et al. Desmoid Tumors in Familial Polyposis Coli. *Ann Surg* 1986; 204(1):94-97.

Case No. 2, Accession No. 29523 November 2002

Arcadia (Garfield Hospital) - Solitary fibrous tumor
Bakersfield - Neurofibroma
Baldwin Park (SCPMG Baldwin Park) - Angiofibroblastoma (3)
Bay Area - Solitary fibrous tumor (4)
Fontana (Kaiser Permanente) - Collagenous fibroma
Long Beach - Schwannoma (8)
Moreno Valley/Riverside - Tendon sheath fibroma
Mountain View (El Camino Pathology Group) - Low grade fibromyxoid sarcoma
Monterey (Community Hospital of Monterey Peninsula) - Neurofibroma
Mountain View (El Camino Pathology Group) - Low grade fibromyxoid sarcoma
Oakland (Kaiser Permanente) - Solitary fibrous tumor (2); Neurofibroma (1)
Orange (UCI Medical Center Residents) - Collagenous fibroma, thigh
San Diego (Naval Medical Center) - Hemangiopericytoma (19); Solitary fibrous tumor (1)
Santa Barbara (Santa Barbara Cottage Hospital) - Schwannoma
Santa Rosa - Vascular leiomyoma vs. fibromatosis (1); Extra-abdominal desmoid (2)
Ventura (Unilab) - Extra-abdominal fibromatosis (2)
Alaska (Alaska Native Medical Center) - Hemangiopericytoma (2); Proliferative fasciitis (1)
Arizona (Phoenix Memorial Hospital) - Extra-abdominal fibromatosis
Florida (Baptist Hospital) - Spindle cell neoplasia consistent with mild atypia, rule out neural origin (would do S-100 immunoperoxidase) (1); Extra-abdominal fibromatosis (1); Intramuscular fibromatosis (1); Low grade fibromyxoid sarcoma (1); Desmoid (1)
Florida (Pathology Associates) - Schwannoma
Florida (Winter Haven Hospital) - Extra-abdominal desmoid
Illinois (Great Lakes Naval Hospital) - Massive soft tissue neurofibroma (2)
Indiana (Fort Wayne) - Solitary fibrous tumor, right thigh
Maryland (Johns Hopkins Hospital Residents) - Solitary fibrous tumor
Maryland (National Naval Medical Center) - Neurofibroma (8)
Maryland (Towson) - Favor solitary fibrous tumor, differential could include neurofibroma, would perform CD34 and S-100
Maryland (University of Maryland Residents) - Neurofibroma
Massachusetts (New England Medical Center Residents) - Neurofibroma
Michigan (Oakwood Hospital) - Solitary fibrous tumor
Michigan (St. Joseph Mercy Hospital) - Schwannoma
Missouri (Truman Medical Center) - Hemangiopericytoma
Nebraska (Creighton University School of Medicine Residents) - Extra-abdominal fibromatosis
New York (Long Island Jewish Medical Center) - Solitary fibrous tumor
New York (Nassau University Medical Center) - Peripheral nerve sheath tumor (neurofibroma), thigh
New York (New York Medical College) - Angiofibroma vs. low grade fibromyxosarcoma
New York (Stony Brook University Hospital Residents) - Solitary fibrous tumor
North Carolina (Mountain Area) - Solitary fibrous tumor (4)
Pennsylvania (Allegheny General Hospital) - Low grade fibromyxoid sarcoma
Pennsylvania (Memorial Medical Center Residents) - Solitary fibrous tumor/hemangiopericytoma
Pennsylvania (UPMC Pathology) - Malignant peripheral nerve sheath tumor
Puerto Rico (University of Puerto Rico) - Fibromatosis/leiomyoma
Texas (Propath Services) - Leiomyoma of deep tissue (1); Leiomyoma (1)
Texas (Scott & White Memorial Hospital) - Extra-abdominal desmoid vs. solitary fibrous tumor
West Virginia (Greenbrier Valley Medical Center) - Fibrohistiocytoma
Australia (Royal Prince Alfred Hospital) - Low grade fibromyxoid sarcoma vs. solitary fibrous tumor (CD34 to differentiate)

Canada (Foothills Medical Center) - Solitary fibrous tumor
Hong Kong (Hong Kong Baptist Hospital) - Hemangiopericytoma
Japan (Yamanashi Medical University) - Extra-abdominal fibromatosis (2); Neurofibroma (1)
Qatar (Hamad Medical Corporation) - Solitary fibrous tumor

DIAGNOSIS:

Solitary fibrous tumor, thigh
T-Y9100, M-03070

Consultation: Sharon Weiss, M.D., Emory University: "Solitary fibrous tumor".

REFERENCES:

Hasegawa T, Hirose T, Seki K, et al. Solitary Fibrous Tumor of Soft Tissue. An Immunohistochemical and Ultrastructural Study. *Am J Clin Pathol* 1996; 106(3):325-331.
Goodlad JR and Fletcher CD. Solitary Fibrous Tumour Arising in Unusual Sites. Analysis of a Series. *Histopathol* 1991; 19(6):515-522.
Deshmaukh NS, Mangham DC, Warfield AT, et al. Solitary Fibrous Tumour of the Thyroid Gland. *J Laryngol Otol* 2001 115(11):940-942.
Miracco C, de Santi MM, Pacenti L, et al. Telomerase Activity, Ki-67, Cyclin D1 and A Expression, and Apoptosis in Solitary Fibrous Tumors. Additional Features of a Predictable Course? *Pathol Res Pract* 2001; 197(7):475-481.
Clayton Ac, Salomao DR, Keeney GL, et al. Solitary Fibrous Tumor. A Study of Cytologic Features of Six Cases Diagnosed by Fine-Needle Aspiration. *Diagn Cytopathol* 2001; 25(3):172-176.

Case No. 3, Accession No. 29522 November 2002

Arcadia (Garfield Hospital) - Carcinoid, malignant (2)
Bakersfield - Islet cell tumor/carcinoid tumor
Baldwin Park (SCPMG Baldwin Park) - Islet cell tumor (3)
Bay Area - Neuroendocrine, islet cell tumor (uncertain biologic behavior) (4)
Fontana (Kaiser Permanente) - Islet cell tumor
Long Beach - Endocrine carcinoma (8)
Moreno Valley/Riverside - Pancreatic endocrine tumor
Mountain View (El Camino Pathology Group) - Islet cell tumor (neuroendocrine carcinoma)
Monterey (Community Hospital of Monterey Peninsula) - Islet cell tumor/moderately differentiated endocrine tumor
Mountain View (El Camino Pathology Group) - Islet cell tumor (neuroendocrine carcinoma)
Oakland (Kaiser Permanente) - Pancreatic endocrine tumor (3)
Orange (UCI Medical Center Residents) - Islet cell tumor, pancreas
San Diego (Naval Medical Center) - Pancreatic endocrine neoplasm
Santa Barbara (Santa Barbara Cottage Hospital) - Pancreatic endocrine tumor
Santa Rosa - Malignant neuroendocrine tumor of pancreas (2); Pancreatic endocrine neoplasm (islet cell tumor) (1)
Ventura (Unilab) - VIP-OMA (2)
Alaska (Alaska Native Medical Center) - Pancreatic endocrine tumor
Arizona (Phoenix Memorial Hospital) - Neuroendocrine carcinoma, pancreas
Florida (Baptist Hospital) - Islet cell tumor (4); Pancreatic endocrine neoplasm (1)
Florida (Pathology Associates) - Neuroendocrine tumor, carcinoid
Florida (Winter Haven Hospital) - Pancreatic neuroendocrine carcinoma
Illinois (Great Lakes Naval Hospital) - Pancreatic endocrine neoplasm (2)
Indiana (Fort Wayne) - Islet cell carcinoma (neuroendocrine carcinoma), pancreas
Maryland (Johns Hopkins Hospital Residents) - Neuroendocrine
Maryland (National Naval Medical Center) - Pancreatic endocrine neoplasm (8)
Maryland (Towson) - Pancreatic endocrine neoplasm vs. acinar cell carcinoma, would perform lipase and trypsin immunostains
Maryland (University of Maryland Residents) - Islet cell carcinoma
Massachusetts (New England Medical Center Residents) - Pancreatic endocrine tumor
Michigan (Oakwood Hospital) - Pancreatic endocrine neoplasm
Michigan (St. Joseph Mercy Hospital) - Islet cell tumor
Missouri (Truman Medical Center) - Glucagonoma
Nebraska (Creighton University School of Medicine Residents) - Islet cell tumor
New York (Long Island Jewish Medical Center) - Islet cell tumor (uncertain malignant potential)

New York (Nassau University Medical Center) - Pancreatic neuroendocrine tumor, pancreas
New York (New York Medical College) - Pancreatic endocrine tumor
New York (Stony Brook University Hospital Residents) - Islet cell tumor, well-differentiated endocrine carcinoma
North Carolina (Mountain Area) - Neuroendocrine carcinoma (2); Islet cell tumor (neuroendocrine tumor) (1); Pancreatic endocrine neoplasm (1)
Pennsylvania (Allegheny General Hospital) - Pancreatic endocrine carcinoma, well-differentiated
Pennsylvania (Memorial Medical Center Residents) - Pancreatic endocrine neoplasm
Pennsylvania (UPMC Pathology) - Endocrine neoplasm
Puerto Rico (University of Puerto Rico) - Endocrine tumor
Texas (Propath Services) - Pancreatic endocrine tumor (carcinoid type) (2)
Texas (Scott & White Memorial Hospital) - Pancreatic neuroendocrine tumor
West Virginia (Greenbrier Valley Medical Center) - Pancreatic endocrine adenocarcinoma
Australia (Royal Prince Alfred Hospital) - Ductal adenocarcinoma
Canada (Foothills Medical Center) - Pancreatic endocrine neoplasm
Hong Kong (Hong Kong Baptist Hospital) - Pancreatic endocrine tumor (islet cell tumor)
Japan (Yamanashi Medical University) - Malignant islet cell tumor (3)
Qatar (Hamad Medical Corporation) - Neuroendocrine tumor, borderline category

DIAGNOSIS:

Pancreatic endocrine neoplasm, low grade
T-59000, M-80103

REFERENCES:

Mukai K, Grotting JC, Greider MH, et al. Retrospective Study of 77 Pancreatic Endocrine Tumors Using Immunoperoxidase Method. *Am J Surg Pathol* 1982; 6(5):387-399.
Mukada T and Yamada S. Dysplasia and Carcinoma In-Situ of the Endocrine Pancreas. *Tohoku J Exp Med* 1982; 137(2):115-124.
Perren A, Komminoth P, Saremasiani P, et al. Mutation and Expression Analyses Reveal Differential Subcellular Compartmentalization of PTEN in Endocrine Pancreatic Tumors Compared to Normal Islet Cells. *Am J Pathol* 2000; 157(4):1097-1103.
De Lellis RA. The Hereditary Forms of Pancreatic Neuroendocrine Tumors. *Adv Anat Pathol* 1999; 6(3):149-153.
Eubanks PJ, Sawicki MP, Samara GJ, Wan YJ, et al. Pancreatic Endocrine Tumors with Loss of Heterozygosity at the Multiple Endocrine Neoplasia Type I Locus. *Am J Surg* 1997; 173(6):518-520.

Case No. 4, Accession No. 29454 November 2002

Arcadia (Garfield Hospital) - Myxoid liposarcoma (2)
Bakersfield - Myxoid liposarcoma
Baldwin Park (SCPMG Baldwin Park) - Myxoid liposarcoma (3)
Bay Area - Liposarcoma, myxoid type (4)
Fontana (Kaiser Permanente) - Myxoid and round cell liposarcoma
Long Beach - Myxoid liposarcoma (8)
Moreno Valley/Riverside - Myxoid liposarcoma
Mountain View (El Camino Pathology Group) - Myxoid liposarcoma
Monterey (Community Hospital of Monterey Peninsula) - Myxofibrosarcoma
Mountain View (El Camino Pathology Group) - Myxoid liposarcoma
Oakland (Kaiser Permanente) - Pleomorphic high grade sarcoma, MFH, possibly a de-differentiated liposarcoma (3)
Orange (UCI Medical Center Residents) - Round cell liposarcoma, thigh
San Diego (Naval Medical Center) - Pleomorphic liposarcoma (18); Leiomyosarcoma (1); High grade poorly differentiated sarcoma (1)
Santa Barbara (Santa Barbara Cottage Hospital) - Liposarcoma myxoid with round cell areas
Santa Rosa - Leiomyosarcoma vs. malignant fibrohistiocytic tumor (1); Sarcoma, NOS (1); Malignant fibrous histiocytoma (1)
Ventura (Unilab) - Malignant fibrous histiocytoma (2)
Alaska (Alaska Native Medical Center) - Rhabdomyosarcoma (2); MFH (malignant fibrohistiocytoma/storiform, pleomorphic) (1)
Arizona (Phoenix Memorial Hospital) - Malignant fibrous histiocytoma, storiform/pleomorphic type
Florida (Baptist Hospital) - Sarcoma, intermediate grade (need immunos) (1); Myxoid liposarcoma (1); Myxoid malignant fibrous histiocytoma (3)
Florida (Pathology Associates) - Malignant fibrous histiocytoma

Florida (Winter Haven Hospital) - Embryonal rhabdomyosarcoma
Illinois (Great Lakes Naval Hospital) - Myxoid liposarcoma (2)
Indiana (Fort Wayne) - Myxofibrosarcoma, thigh
Maryland (Johns Hopkins Hospital Residents) - Myxoid malignant fibrous histiocytoma
Maryland (National Naval Medical Center) - Myxoid liposarcoma (8)
Maryland (Towson) - Favor myxoid malignant fibrous histiocytoma
Maryland (University of Maryland Residents) - Liposarcoma, myxoid, focally dedifferentiated
Massachusetts (New England Medical Center Residents) - Myxoid liposarcoma
Michigan (Oakwood Hospital) - Sarcoma, favor malignant fibrous histiocytoma
Michigan (St. Joseph Mercy Hospital) - Dedifferentiated liposarcoma (2); Malignant fibrous histiocytoma (1)
Missouri (Truman Medical Center) - Pleomorphic liposarcoma
Nebraska (Creighton University School of Medicine Residents) - Peripheral nerve sheath tumor
New York (Long Island Jewish Medical Center) - Myxoid liposarcoma
New York (Nassau University Medical Center) - Well-differentiated liposarcoma, thigh
New York (New York Medical College) - Pleomorphic sarcoma favor liposarcoma
New York (Stony Brook University Hospital Residents) - Rhabdomyosarcoma, pleomorphic type
North Carolina (Mountain Area) - Rhabdomyosarcoma (2); Rhabdomyosarcoma/myxofibrosarcoma (1); Myxofibrosarcoma (1)
Pennsylvania (Allegheny General Hospital) - Myxoid malignant fibrous histiocytoma
Pennsylvania (Memorial Medical Center Residents) - Round cell liposarcoma
Pennsylvania (UPMC Pathology) - Cellular (round cell) myxoid liposarcoma
Puerto Rico (University of Puerto Rico) - Myxoid liposarcoma
Texas (Propath Services) - Poorly differentiated myxoid liposarcoma (1); Myxoid liposarcoma (1)
Texas (Scott & White Memorial Hospital) - Dedifferentiated liposarcoma
West Virginia (Greenbrier Valley Medical Center) - Malignant fibrous histiocytoma
Australia (Royal Prince Alfred Hospital) - Spindle cell sarcoma, favor liposarcoma (myxoid and round cell areas)
Canada (Foothills Medical Center) - Myxoid malignant fibrous histiocytoma
Hong Kong (Hong Kong Baptist Hospital) - Peripheral nerve sheath tumor
Japan (Yamanashi Medical University) - Liposarcoma (1); Malignant fibrous histiocytoma (1); Malignant schwannoma (1)
Qatar (Hamad Medical Corporation) - Malignant peripheral nerve sheath tumor

DIAGNOSIS:

Mixed liposarcoma with myxoid/round cell and pleomorphic components, thigh
Director's Note: Not every slide showed the full spectrum. (drc)
T-Y9100, M-88523

REFERENCES:

Aman P, Ron D, Mandahl N, et al. Rearrangement of the Transcription Factor Gene CHOP in Myxoid Liposarcoma with t(12;16)(q13; p11) *Genes Chromosomes Cancer* 1992; 5:278-285.

Hashimoto H, Daimaru Y and Enjoji M. S-100 Protein Distribution in Liposarcoma a Immunoperoxidase Study with Special Reference to the Distinction of Liposarcoma from Myxoid Malignant Fibrous Histiocytoma. Virchows Arch (A) *Pathol Anat Histopathol* 1984; 405(1):1-10.

Mentzel T and Fletcher CD. Dedifferentiated myxoid liposarcoma. A Clinicopathological Study Suggesting a Closer Relationship Between Myxoid and Well-Differentiated Liposarcoma. *Histopathol* 1997; 30(5):457-463.

Hasegawa T, Seki K, Hasegawa F, et al. Dedifferentiated Liposarcoma of Retroperitoneum and Mesentery. Varied Growth Patterns and Histological Grades. A Clinicopathologic Study of 32 Cases. *Hum Pathol* 2000; 31(6):717-727.

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Case No. 5, Accession No. 29553 November 2002

Arcadia (Garfield Hospital) - Benign rhabdo-lipoma (2)
Bakersfield - Intramuscular lipoma
Baldwin Park (SCPMG Baldwin Park) - Intramuscular lipoma (3)
Bay Area - Intramuscular lipoma (consider rhabdomyoma) (4)
Fontana (Kaiser Permanente) - Intramuscular lipoma
Long Beach - Intramuscular lipoma (8)
Moreno Valley/Riverside - Intramuscular lipoma (Note: a small isolated hypercellular tumor, probably contaminated fragment seen)
Mountain View (El Camino Pathology Group) - Intramuscular lipoma
Monterey (Community Hospital of Monterey Peninsula) - Intramuscular lipoma

Mountain View (El Camino Pathology Group) - Intramuscular lipoma
Oakland (Kaiser Permanente) - Intramuscular lipoma (3)
Orange (UCI Medical Center Residents) - Intramuscular lipoma, thigh
San Diego (Naval Medical Center) - Intramuscular lipoma
Santa Barbara (Santa Barbara Cottage Hospital) - Intramuscular lipoma
Santa Rosa - Intramuscular lipoma (3)
Ventura (Unilab) - Intramuscular lipoma (2)
Alaska (Alaska Native Medical Center) - Intramuscular lipoma
Arizona (Phoenix Memorial Hospital) - Intramuscular lipoma
Florida (Baptist Hospital) - Intramuscular lipoma (5)
Florida (Pathology Associates) - Lipoma, intramuscular
Florida (Winter Haven Hospital) - Infiltrating lipoma
Illinois (Great Lakes Naval Hospital) - Intramuscular lipoma (2)
Indiana (Fort Wayne) - Recurrent intramuscular angiolipoma, right thigh
Maryland (Johns Hopkins Hospital Residents) - Intramuscular lipoma
Maryland (National Naval Medical Center) - Intramuscular lipoma (8)
Maryland (Towson) - Intramuscular lipoma
Maryland (University of Maryland Residents) - Intramuscular lipoma
Massachusetts (New England Medical Center Residents) - Intramuscular lipoma
Michigan (Oakwood Hospital) - Intramuscular lipoma
Michigan (St. Joseph Mercy Hospital) - Intramuscular lipoma, recurrent
Missouri (Truman Medical Center) - Intramuscular lipoma
Nebraska (Creighton University School of Medicine Residents) - Intramuscular lipoma
New York (Long Island Jewish Medical Center) - Intramuscular lipoma
New York (Nassau University Medical Center) - Intramuscular lipoma, thigh
New York (New York Medical College) - Intramuscular lipoma
New York (Stony Brook University Hospital Residents) - Intramuscular lipoma
North Carolina (Mountain Area) - Intramuscular lipoma (4)
Pennsylvania (Allegheny General Hospital) - Intramuscular lipoma
Pennsylvania (Memorial Medical Center Residents) - Intramuscular hemangioma
Pennsylvania (UPMC Pathology) - Intramuscular lipoma
Puerto Rico (University of Puerto Rico) - Intramuscular lipoma
Texas (Propath Services) - Intramuscular lipoma (2)
Texas (Scott & White Memorial Hospital) - Intramuscular lipoma
West Virginia (Greenbrier Valley Medical Center) - Intra/Intermuscular lipoma
Australia (Royal Prince Alfred Hospital) - Intramuscular lipoma
Canada (Foothills Medical Center) - Intramuscular lipoma
Hong Kong (Hong Kong Baptist Hospital) - Intramuscular lipoma
Japan (Yamanashi Medical University) - Intramuscular lipoma (3)
Qatar (Hamad Medical Corporation) - Intramuscular lipoma

DIAGNOSIS:

Intramuscular lipoma, thigh
T-Y9100, M-88560

REFERENCES:

Echenique-Elizondo M. Intermuscular Lipoma. *J Am Coll Surg* 2001; 193(4):452.
Kindblom LG, Angervall L, Stener B, et al. Intermuscular and Intramuscular Lipomas and Hiberomas. A Clinical, Roentgenologic, Histologic and Prognostic Study of 46 Cases. *Cancer* 1974; 33(3):754-762.
Fletcher CDM and Martin-Bates E. Intramuscular and Intermuscular Lipoma Neglected Diagnoses. *Histopathol* 1988; 12(3):275-287.
Meis JM and Enzinger FM. Myolipoma of Soft Tissue. *Am J Surg Pathol* 1991; 15(2):121-125.

Case No. 6, Accession No. 29554 November 2002

Arcadia (Garfield Hospital) - Malignant ependymoma (2)
Bakersfield - Glioblastoma with epithelial metaplasia

Baldwin Park (SCPMG Baldwin Park) - Glioblastoma multiforme, metastatic (1); Permeative neuroectodermal tumor (2)
Bay Area - Olfactory neuroblastoma vs. primitive neuroglial tumor (3)
Fontana (Kaiser Permanente) - Glial tumor
Long Beach - Recurrent CNS tumor (meningioma?)
Moreno Valley/Riverside - Merkel cell carcinoma
Mountain View (El Camino Pathology Group) - Permeative neuroectodermal tumor
Monterey (Community Hospital of Monterey Peninsula) - Oligodendroblastoma vs. chordoma vs. astrocytoma vs. ependymoma
Mountain View (El Camino Pathology Group) - Permeative neuroectodermal tumor
Oakland (Kaiser Permanente) - Oligodendroglioma (3)
Orange (UCI Medical Center Residents) - Ependymoma, scalp
San Diego (Naval Medical Center) - Anaplastic oligodendroblastoma (10); Anaplastic ependymoma (8); Glioblastoma multiforme (2)
Santa Barbara (Santa Barbara Cottage Hospital) - Malignant, metastatic carcinoma
Santa Rosa - High grade astrocytoma (2) Malignant neoplasm invading scalp (1)
Ventura (Unilab) - Anaplastic astrocytoma (2)
Alaska (Alaska Native Medical Center) - Malignant oligodendroglioma/glioblastoma multiforme, grade IV
Arizona (Phoenix Memorial Hospital) - Metastatic carcinoma (unknown primary)
Florida (Baptist Hospital) - Gliosarcoma (5)
Florida (Pathology Associates) - Anaplastic oligodendroglioma
Florida (Winter Haven Hospital) - Metastatic glioma
Illinois (Great Lakes Naval Hospital) - Oligodendroglioma (2)
Indiana (Fort Wayne) - Recurrent anaplastic glioma with invasion of scalp
Maryland (Johns Hopkins Hospital Residents) - High grade glioma
Maryland (National Naval Medical Center) - Primitive neuroectodermal tumor (PNET) (6); Merkel cell carcinoma (2)
Maryland (Towson) - Recurrent high grade glial neoplasm, possibly small cell glioblastoma?
Maryland (University of Maryland Residents) - Gliosarcoma
Massachusetts (New England Medical Center Residents) - Metastatic anaplastic ependymoma
Michigan (Oakwood Hospital) - Malignant, favor clear cell meningioma
Michigan (St. Joseph Mercy Hospital) - Glioma, uncertain type
Missouri (Truman Medical Center) - Ependymoma, high grade
Nebraska (Creighton University School of Medicine Residents) - Mesenchymal chondrosarcoma
New York (Long Island Jewish Medical Center) - Ependymoma, metastatic, clear cell type
New York (Nassau University Medical Center) - Anaplastic ependymoma, scalp
New York (New York Medical College) - Recurrent glioma vs. PNET
New York (Stony Brook University Hospital Residents) - Oligodendroglioma, extraneural metastasis
North Carolina (Mountain Area) - Ependymoma (4)
Pennsylvania (Allegheny General Hospital) - Glioblastoma multiforme
Pennsylvania (Memorial Medical Center Residents) - Teratocarcinoma
Pennsylvania (UPMC Pathology) - Metastatic anaplastic ependymoma
Puerto Rico (University of Puerto Rico) - Primitive neuroectodermal tumor (PNET)
Texas (Propath Services) - Poorly differentiated neuroglial tumor (2)
Texas (Scott & White Memorial Hospital) - Gliosarcoma
West Virginia (Greenbrier Valley Medical Center) - Oligodendroglioma
Australia (Royal Prince Alfred Hospital) - Ependymoblastoma
Canada (Foothills Medical Center) - Ependymoma
Hong Kong (Hong Kong Baptist Hospital) - Ependymoma
Japan (Yamanashi Medical University) - Glioblastoma with epithelial metaplasia (2)
Qatar (Hamad Medical Corporation) - Deposit from recurrent high grade glioma, anaplastic oligodendroglioma

DIAGNOSIS:

Metastatic high grade glioma, scalp

Director's Note: The patient's brain tumor was a glioblastoma multiforme. (drc)
T-Y0160, M-93803

REFERENCES:

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Burger PC and Vollmer RT. Histologic Factors of Prognostic Significance in the Glioblastoma Multiforme. *Cancer* 1980; 46(5):1179-1186.

Brat DJ, Castellano SA, Kaur B, et al. Pathology of Disease. Genetic and Biologic Progression in Astrocytomas and Their Relation to Angiogenic Dysregulation. *Advan Anat Pathol* 2002; 9(1):24-30.
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Figueroa P, Lupton JR, Remington T, et al. Cutaneous Metastasis from an Intracranial Glioblastoma Multiforme. *J Am Acad Dermatol* 2002; 46(2):297-300.
Park CC, Hartmann C, Folkerth R, et al. Systemic Metastasis in Glioblastoma May Represent the Emergence of Neoplastic Subclones. *J Neuropathol Exp Neurol* 2000; 59(12):1044-1050.

Case No. 7, Accession No. 29452 November 2002

Arcadia (Garfield Hospital) - Fibrothecoma (2)
Bakersfield - Stromal tumor, thecoma
Baldwin Park (SCPMG Baldwin Park) - Ovarian fibrothecoma (3)
Bay Area - Sclerosing stromal tumor (2); Thecoma (1)
Fontana (Kaiser Permanente) - Fibrothecoma
Long Beach - Luteinized thecoma (8)
Moreno Valley/Riverside - Sclerosing stromal tumor, ovary
Mountain View (El Camino Pathology Group) - Fibrothecoma
Monterey (Community Hospital of Monterey Peninsula) - Thecoma
Mountain View (El Camino Pathology Group) - Fibrothecoma
Oakland (Kaiser Permanente) - Luteinized thecoma (3)
Orange (UCI Medical Center Residents) - Fibrothecoma, ovary
San Diego (Naval Medical Center) - Sclerosing stromal tumor
Santa Barbara (Santa Barbara Cottage Hospital) - Thecoma
Santa Rosa - Sclerosing stromal tumor of ovary (2); Thecoma (1)
Ventura (Unilab) - Thecoma (2)
Alaska (Alaska Native Medical Center) - Luteinized thecoma
Arizona (Phoenix Memorial Hospital) - Cellular thecoma
Florida (Baptist Hospital) - Cortical stromal tumor, thecoma (1); Sclerosing stromal tumor (1); Thecoma (2); Signet ring stromal tumor (1)
Florida (Pathology Associates) - Juvenile granulosa cell tumor
Florida (Winter Haven Hospital) - Thecoma, fibroma
Illinois (Great Lakes Naval Hospital) - Sex cord stromal tumor (2)
Indiana (Fort Wayne) - Fibrothecoma, ovary
Maryland (Johns Hopkins Hospital Residents) - Sclerosing stromal tumor
Maryland (National Naval Medical Center) - Sclerosing stromal cell tumor (8)
Maryland (Towson) - Sclerosing stromal tumor of the ovary
Maryland (University of Maryland Residents) - Thecoma (rule out sclerosing stromal tumor in additional sections)
Massachusetts (New England Medical Center Residents) - Sclerosing stromal tumor
Michigan (Oakwood Hospital) - Thecoma
Michigan (St. Joseph Mercy Hospital) - Thecoma
Missouri (Truman Medical Center) - Sclerosing stromal tumor
Nebraska (Creighton University School of Medicine Residents) - Sclerosing stromal tumor
New York (Long Island Jewish Medical Center) - Fibrothecoma
New York (Nassau University Medical Center) - Fibrothecoma (thecoma), ovary
New York (New York Medical College) - Sclerosing stromal tumor
New York (Stony Brook University Hospital Residents) - Fibrothecoma
North Carolina (Mountain Area) - Sclerosing stromal tumor (4)
Pennsylvania (Allegheny General Hospital) - Ovarian thecoma
Pennsylvania (Memorial Medical Center Residents) - Sclerosing stromal tumor
Pennsylvania (UPMC Pathology) - Sclerosing stromal tumor
Puerto Rico (University of Puerto Rico) - Steroid cell tumor
Texas (Propath Services) - Thecoma (2)
Texas (Scott & White Memorial Hospital) - Thecoma

West Virginia (Greenbrier Valley Medical Center) - Ovarian edema
Australia (Royal Prince Alfred Hospital) - Sclerosing Sertoli cell tumor
Canada (Foothills Medical Center) - Thecoma
Hong Kong (Hong Kong Baptist Hospital) - Sex cord stroma tumor
Japan (Yamanashi Medical University) - Thecoma (1); Luteinized thecoma (1); Sclerosing stromal tumor (1)
Qatar (Hamad Medical Corporation) - Sclerosing stromal tumor (6); Fibroma/thecoma (2)

DIAGNOSIS:

Luteinized thecoma, ovary
T-87000, M-86000

REFERENCES:

Piver M, Williams LJ and Marcuce PM. Influence of Luteal Cysts on Menstrual Function. *Obstet Gynecol* 1970; 35(5):740-751.
Stevens ML and Plotka ED. Functional Lutein Cyst in a Postmenopausal Woman. *Obstet Gynecol* 1977; 50(1):27s-29s.
Nishida T, Ushijima K, Watanabe J, et al. Sclerosing Peritonitis Associated with Luteinized Thecoma of the Ovary. *Gynecol Oncol* 1999; 73(1):167-169.
Liang SB, Sonobe H, Taguchi T, et al. Tetrasomy 12 in Ovarian Tumors of Thecoma-Fibroma Group. A Fluorescence In-Situ Hybridization Analysis Using Paraffin Sections. *Pathol Int* 2001; 51(1):37-42.

Case No. 8, Accession No. 29545 November 2002

Arcadia (Garfield Hospital) - Low grade papillary, secretory carcinoma with apocrine changes (2)
Bakersfield - Papillary carcinoma
Baldwin Park (SCPMG Baldwin Park) - Intracystic papillary carcinoma (3)
Bay Area - Infiltrating papillary carcinoma (3)
Fontana (Kaiser Permanente) - Ductal carcinoma
Long Beach - Papillary carcinoma (8)
Moreno Valley/Riverside - Papillary carcinoma (invasive), breast
Mountain View (El Camino Pathology Group) - Intracystic papillary carcinoma
Monterey (Community Hospital of Monterey Peninsula) - Intracystic papillary carcinoma
Mountain View (El Camino Pathology Group) - Intracystic papillary carcinoma
Oakland (Kaiser Permanente) - Papillary carcinoma (3)
Orange (UCI Medical Center Residents) - Papillary carcinoma, breast
San Diego (Naval Medical Center) - Invasive papillary carcinoma
Santa Barbara (Santa Barbara Cottage Hospital) - Papillary intracystic carcinoma
Santa Rosa - Papillary carcinoma of breast (1); Papillary carcinoma (2)
Ventura (Unilab) - Intraductal papilloma (2)
Alaska (Alaska Native Medical Center) - Papillary carcinoma, solid and cribriform
Arizona (Phoenix Memorial Hospital) - Intracystic papillary carcinoma
Florida (Baptist Hospital) - Ductal carcinoma consistent with neuroendocrine features (3); Papillary and solid carcinoma of the breast (1); Solid papillary carcinoma (1)
Florida (Pathology Associates) - Papillary carcinoma, at least in-situ
Florida (Winter Haven Hospital) - Secretory carcinoma
Illinois (Great Lakes Naval Hospital) - Infiltrative ductal carcinoma with neuroendocrine differentiation (2)
Indiana (Fort Wayne) - Ductal carcinoma with endocrine-like features, left female breast
Maryland (Johns Hopkins Hospital Residents) - Solid papillary carcinoma
Maryland (National Naval Medical Center) - Papillary carcinoma (8)
Maryland (Towson) - Solid papillary carcinoma of the breast
Maryland (University of Maryland Residents) - Intracystic papillary carcinoma, not invasive
Massachusetts (New England Medical Center Residents) - Invasive papillary carcinoma
Michigan (Oakwood Hospital) - Intracystic papillary carcinoma
Michigan (St. Joseph Mercy Hospital) - Papillary carcinoma
Missouri (Truman Medical Center) - Papillary carcinoma
Nebraska (Creighton University School of Medicine Residents) - Invasive papillary ductal carcinoma
New York (Long Island Jewish Medical Center) - Papillary carcinoma of breast
New York (Nassau University Medical Center) - Infiltrating papillary carcinoma, breast
New York (New York Medical College) - Papillary carcinoma

New York (Stony Brook University Hospital Residents) - Intracystic papillary carcinoma
North Carolina (Mountain Area) - Infiltrating ductal carcinoma, well-differentiated (1); Papillary carcinoma (3)
Pennsylvania (Allegheny General Hospital) - Papillary carcinoma of the breast
Pennsylvania (Memorial Medical Center Residents) - Carcinoma with neuroendocrine differentiation
Pennsylvania (UPMC Pathology) - Intracystic papillary carcinoma
Puerto Rico (University of Puerto Rico) - Carcinoid tumor
Texas (Propath Services) - Papillary adenocarcinoma (2)
Texas (Scott & White Memorial Hospital) - Papillary carcinoma
West Virginia (Greenbrier Valley Medical Center) - Papillary adenocarcinoma
Australia (Royal Prince Alfred Hospital) - Gruber-Franz tumor
Canada (Foothills Medical Center) - Carcinoma with neuroendocrine features
Hong Kong (Hong Kong Baptist Hospital) - Endocrine DCIS
Japan (Yamanashi Medical University) - Invasive ductal carcinoma (1); Papillotubular carcinoma (1); Papillary carcinoma (1)
Qatar (Hamad Medical Corporation) - Mammary carcinoma with neuroendocrine features, however, metastatic carcinoid should be ruled out.

DIAGNOSIS:

Papillary carcinoma (intracystic and invasive), breast
T-04000, M-80503

REFERENCES:

Nathanson SD, Wachna L, Gilman D, et al. Pathways of Lymphatic Drainage from the Breast. *Ann Surg Oncol* 2001; 8(10):837-843.
Cox CE, Salud CJ, Cantor A, et al. Learning Curves for Breast Cancer Sentinel Lymph Node Mapping Based on Surgical Volume Analysis. *J Am Coll Surg* 2001; 193(6):593-600.
Purcell CA and Norris HJ. Intraductal Proliferations of the Breast. A Review of Histologic Criteria for Atypical Intraductal Hyperplasia and Ductal Carcinoma In-Situ, Including Apocrine and Papillary Lesions. *Ann Diagn Pathol* 1998; 2(2):135-145.
Nayar R, Frias DV, Bourtsos EP, et al. Cytologic Differential Diagnosis of Papillary Pattern in Breast Aspirates. Correlation with Histology. *Ann Diagn Pathol* 2001; 5(1):34-42.
Saddik M, Lai R, Medeiros LJ, et al. Differential Expression of Cyclin D1 in Breast Papillary Carcinomas and Benign Papillomas. An Immunohistochemical Study. *Arch Pathol Lab Med* 1999; 123(2):152-156.

Case No. 9, Accession No. 29572 November 2002

Arcadia (Garfield Hospital) - Poorly differentiated carcinoma, non-small cell (2)
Bakersfield - Mesothelioma
Baldwin Park (SCPMG Baldwin Park) - ? Synovial sarcoma or meningioma (1); Meningioma vs. carcinoma (1); Metastatic carcinoma (1)
Bay Area - Spindle cell carcinoma (consider synovial sarcoma) (3)
Fontana (Kaiser Permanente) - Desmoplastic mesothelioma
Long Beach - Pseudosarcomatous spindle cell carcinoma (8)
Moreno Valley/Riverside - Sclerosing hemangioma, lung
Mountain View (El Camino Pathology Group) - Sarcomatoid carcinoma
Monterey (Community Hospital of Monterey Peninsula) - Desmoplastic carcinoma vs. thymoma vs. localized fibrous tumor
Mountain View (El Camino Pathology Group) - Sarcomatoid carcinoma
Oakland (Kaiser Permanente) - Sclerosing hemangioma (3)
Orange (UCI Medical Center Residents) - Sclerosing hemangioma, lung
San Diego (Naval Medical Center) - Inflammatory pseudotumor (16); Sclerosing hemangioma (4)
Santa Barbara (Santa Barbara Cottage Hospital) - Sclerosing hemangioma
Santa Rosa - Mesothelioma, NOS (3)
Ventura (Unilab) - Large cell carcinoma (2)
Alaska (Alaska Native Medical Center) - Pleomorphic adenoma (mixed tumor) (2); Epithelioid hemangioendothelioma (1)
Arizona (Phoenix Memorial Hospital) - Large cell undifferentiated/spindle cell carcinoma
Florida (Baptist Hospital) - Anaplastic carcinoma with spindled (pseudosarcomatous pattern) (1); Synovial sarcoma (2); Sarcomatoid carcinoma (1); Spindle cell carcinoma (1)
Florida (Pathology Associates) - Carcinoma, NOS
Florida (Winter Haven Hospital) - Sclerosing hemangioma

Illinois (Great Lakes Naval Hospital) - Sclerosing hemangioma (2)
Indiana (Fort Wayne) - Poorly differentiated carcinoma of lung with amyloid-like stroma
Maryland (Johns Hopkins Hospital Residents) - Sclerosing hemangioma
Maryland (National Naval Medical Center) - Sclerosing hemangioma (5); Mesothelioma (3)
Maryland (Towson) - So-called sclerosing hemangioma of lung
Maryland (University of Maryland Residents) - Sclerosing hemangioma
Massachusetts (New England Medical Center Residents) - Sclerosing hemangioma
Michigan (Oakwood Hospital) - Meningioma?
Michigan (St. Joseph Mercy Hospital) - Sarcomatoid carcinoma (2); Mesothelioma (1)
Missouri (Truman Medical Center) - Mesothelioma
Nebraska (Creighton University School of Medicine Residents) - Sclerosing hemangioma (4); Synovial sarcoma (4)
New York (Long Island Jewish Medical Center) - Sclerosing hemangioma
New York (Nassau University Medical Center) - Sarcomatoid carcinoma, lung
New York (New York Medical College) - Synovial sarcoma vs. pleural fibrous tumor
New York (Stony Brook University Hospital Residents) - Synovial sarcoma
North Carolina (Mountain Area) - Sclerosing hemangioma (4)
Pennsylvania (Allegheny General Hospital) - Sarcomatoid carcinoma vs. monophasic synovial sarcoma
Pennsylvania (Memorial Medical Center Residents) - Sclerosing hemangioma
Pennsylvania (UPMC Pathology) - Sclerosing hemangioma
Puerto Rico (University of Puerto Rico) - Small cell carcinoma/amyloid?
Texas (Propath Services) - Sclerosing hemangioma (2)
Texas (Scott & White Memorial Hospital) - Sclerosing hemangioma
West Virginia (Greenbrier Valley Medical Center) - Carcinoid tumor
Australia (Royal Prince Alfred Hospital) - Mesothelioma
Canada (Foothills Medical Center) - Sarcomatoid carcinoma
Hong Kong (Hong Kong Baptist Hospital) - Large cell undifferentiated carcinoma
Japan (Yamanashi Medical University) - Sclerosing hemangioma (3)
Qatar (Hamad Medical Corporation) - Mesothelioma

DIAGNOSIS:

Malignant neoplasm, favor undifferentiated carcinoma, lung
T-28000, M-80003

Consultation: Pulmonary Section, AFIP, "Malignant spindle cell neoplasm, favor pleomorphic carcinoma."

REFERENCES:

Toyama M, Uezu K, Nakamoto A, et al. Diagnostic – Dilemmas in Oncology Case 1. Lung Cancer with Miliary Brain Metastases Undetected by Imaging Studies. *J Clin Oncol* 2001; 19(23):4340-4341.

Razzuk MA, Urschel HG, Race GJ, Jr., et al. Carcinosarcoma of the Lung. Report of Two Cases and Review of the Literature. *J Thorac Cardiovasc Surg* 1971; 61(4):541-546.

Nakajima M, Kasai T, Hashimoto , et al. Sarcomatois Carcinoma of the Lung. A Clinicopathologic Study of 37 Cases. *Cancer* 1999; 86(4):608-616.

Wakely P. Pulmonary Spindle Cell Lesions. Correlation of Aspiration Cytopathology and Histopathology. *Ann Diagn Pathol* 2001; 5(4):216-228.

Case No. 10, Accession No. 29526 November 2002

Arcadia (Garfield Hospital) - Rhabdomyosarcoma (2)
Bakersfield - Pleomorphic liposarcoma
Baldwin Park (SCPMG Baldwin Park) - Infarcted neuroblastoma (2); Neuroblastoma (2)
Bay Area - Sarcoma, NOS (consider rhabdomyosarcoma, rhabdoid tumor) (3)
Fontana (Kaiser Permanente) - Ganglineuroblastoma
Long Beach - Neuroblastoma (maturing) (8)
Moreno Valley/Riverside - Ganglioneuroblastoma
Mountain View (El Camino Pathology Group) - Ganglioneuroblastoma
Monterey (Community Hospital of Monterey Peninsula) - Ganglioneuroblastoma
Mountain View (El Camino Pathology Group) - Ganglioneuroblastoma
Oakland (Kaiser Permanente) - Malignant triton tumor

Orange (UCI Medical Center Residents) - Stroma-rich differentiating ganglioneuroblastoma, abdomen
San Diego (Naval Medical Center) - Stroma poor, differentiating neuroblastoma
Santa Barbara (Santa Barbara Cottage Hospital) - Ganglioneuroblastoma
Santa Rosa - Pleomorphic rhabdomyosarcoma (2); Rhabdomyosarcoma (1)
Ventura (Unilab) - Ganglioneuroblastoma (2)
Alaska (Alaska Native Medical Center) - Ganglioneuroblastoma
Arizona (Phoenix Memorial Hospital) - Ganglioneuroblastoma
Florida (Baptist Hospital) - Osteogenic sarcoma (1); Telangiectatic osteosarcoma (2); Embryonal rhabdomyosarcoma (pleomorphic variant) (1); Osteogenic sarcoma telangiectatic (1)
Florida (Pathology Associates) - Rhabdomyosarcoma
Florida (Winter Haven Hospital) - Neuroblastoma
Illinois (Great Lakes Naval Hospital) - Embryonal rhabdomyosarcoma (2)
Indiana (Fort Wayne) - Ganglioneuroblastoma, abdomen
Maryland (Johns Hopkins Hospital Residents) - Ganglioneuroblastoma
Maryland (National Naval Medical Center) - Ganglioneuroblastoma (8)
Maryland (Towson) - Ganglioneuroblastoma/stromal rich neuroblastoma
Maryland (University of Maryland Residents) - Pheochromocytoma
Massachusetts (New England Medical Center Residents) - Ganglioneuroblastoma, nodular
Michigan (Oakwood Hospital) - Rhabdoid tumor
Michigan (St. Joseph Mercy Hospital) - Ganglioneuroblastoma
Missouri (Truman Medical Center) - Ganglioneuroblastoma
Nebraska (Creighton University School of Medicine Residents) - Ganglioneuroblastoma, shimada subtype "stroma-rich, nodular"
New York (Long Island Jewish Medical Center) - Neuroblastoma
New York (Nassau University Medical Center) - Pleomorphic rhabdomyosarcoma, abdomen
New York (New York Medical College) - Neuroblastoma
New York (Stony Brook University Hospital Residents) - Ganglioneuroblastoma
North Carolina (Mountain Area) - Ganglioneuroblastoma (3); Neuroblastoma (1)
Pennsylvania (Allegheny General Hospital) - Rhabdomyosarcoma
Pennsylvania (Memorial Medical Center Residents) - Ganglioneuroblastoma
Pennsylvania (UPMC Pathology) - Triton tumor (ectomesenchymoma) rhabdomyosarcoma ganglionneuroma
Puerto Rico (University of Puerto Rico) - Pleomorphic rhabdomyosarcoma
Texas (Propath Services) - Ganglioneuroblastoma (2)
Texas (Scott & White Memorial Hospital) - Ganglioneuroblastoma
West Virginia (Greenbrier Valley Medical Center) - Rhabdomyosarcoma, NOS
Australia (Royal Prince Alfred Hospital) - Rhabdomyosarcoma (embryonal)
Canada (Foothills Medical Center) - Differentiating neuroblastoma
Hong Kong (Hong Kong Baptist Hospital) - Pleomorphic rhabdomyosarcoma
Japan (Yamanashi Medical University) - Ganglioneuroblastoma (1); Rhabdomyosarcoma (1); Anaplastic seminoma (1)
Qatar (Hamad Medical Corporation) - Composite pheochromocytoma and neuroblastoma

DIAGNOSIS:

Ganglioneuroblastoma, abdomen
T-Y4300, M-94903

REFERENCES:

Yunis EJ, Agostini RM, Walpusk JA and Hubbard JD. Glycogen in Neuroblastomas A Light and Electron-Microscopic Study of 240 Cases. *Am J Surg Pathol* 1979; 3(4):313-323.

Wirnsberger GH, Becker H, Ziervogel K and Hofler H. Diagnostic Immunohistochemistry of Neuroblastic Tumors. *Am J Surg Pathol* 1992; 16(1):49-57.

Umehara S, Nakagawa A, Mattay KK, et al. Histopathology Defines Prognostic Subsets of Ganglioneuroblastoma, Nodular. *Cancer* 2000; 89(5):1150-1161.

Shimada H, Ambros IM, Dehner LP, et al. Terminology and Morphologic Criteria of Neuroblastic Tumors. Recommendations by the International Neuroblastoma Pathology Committee. *Cancer* 1999; 86(2):349-363.

Shimada H, Ambros IM, Dehner LP, et al. The International Neuroblastoma Pathology Classification (The Shimada System). *Cancer* 1999; 86(2)364-372.

Shimada H, Umehara S, Monobe Y, et al. International Neuroblastoma Pathology Classification for Prognostic Evaluation of Patients with Peripheral Neuroblastic Tumors. A Report from the Children's Cancer Group. *Cancer* 2001; 92(9):2451-2461.