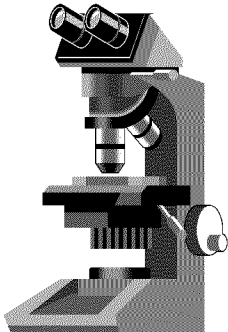


CALIFORNIA
TUMOR TISSUE REGISTRY



SOFT TISSUE TUMOR PATHOLOGY

Minutes – Subscription B

September 1998

SUGGESTED READING (General Topics from Recent Literature):

- Application of Immunocytochemistry in the Diagnosis of Soft Tissue Sarcomas. A Review and Update. *Adv in Anatomic Pathol* 1998; 5(2):67-85. Ordonez, NG.
- News in Brief. Melanocytes Found for the First Time in a Major Salivary Gland. *Adv in Anatomic Pathol* 1998; 5(2):115.
- News in Brief. A Novel, If Not Exciting, Way to Look at Tumor Suppressor Genes. A Great Read! *Adv in Anatomic Pathol* 1998; 5(2):124.
- Do “Rhabdoid Features” Impart a Poorer Prognosis to Promixal-Type Epithelioid Sarcomas? *Adv in Anatomic Pathol* 1997; 4(5):293-299. Chase, DR.
- The Emerging Molecular Genetics of Sarcoma Translocations. *Diagn Mol Pathol* 1995; 4:162-173. Ladanyi M.
- Small Intestinal Stromal Tumors. A Clinicopathologic Study of 20 Cases With Immunohistochemical Assessment of Cell Differentiation and the Prognostic Role of Proliferation Antigens. *Anatomic Pathol* 1997; 108(6):641-651.

California Tumor Tissue Registry
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CALIFORNIA (Glendale) - Cavernous hemangioma
ARIZONA (Phoenix) - Hemangioma
UTAH (Salt Lake City) - Cavernous hemangioma
OKLAHOMA (Ardmore) - Benign hemangioma of liver
MICHIGAN (Royal Oak) - Spindle cell hemangioendothelioma
MICHIGAN (Ann Arbor) - Cavernous hemangioma
INDIANA (Fort Wayne) - Cavernous hemangioma, liver
KENTUCKY (Ft. Knox) - Hepatic hemangioma
ILLINOIS (Park Ridge) - Angiosarcoma
FLORIDA (Miami) - Cavernous hemangioma
FLORIDA (Winter Haven) - Hemangioma
LOUISIANA (Metairie) - Cavernous hemangioma
NEW JERSEY (Short Hills) - Angiosarcoma
PENNSYLVANIA (Philadelphia) - Peliosis hepatica and hemangioma
MASSACHUSETTS (Medfield) - Peliosis hepatis

DIAGNOSIS:

CAVERNOUS HEMANGIOMA, LIVER

T56000, M91200

REFERENCES:

- Hobbs K. Hepatic Hemangiomas. *World J Surg* 1990; 14:468-471.
Stanley P, Geer G, Miller J, et al. Infantile Hepatic Hemangiomas. Clinical Features, Radiologic Investigations, and Treatment of 20 Patients. *Cancer* 1989; 64:936-949.
Twatsuki S, Todo S, and Starzl TE. Excisional Therapy of Benign Hepatic Lesions. *Surg Gynecol Obstet* 1990; 171:240-246. (Includes Hemangiomas).
Johnson CM, Sheedy II PF, Stanson AW, et al. Computed Tomography and Angiography of Cavernous Hemangiomas of the Liver. *Radiology* 1981; 138:115-121.
Kojimahara M. Ultrastructural Study of Hemangiomas 4. Cavernous Hemangioma of the Liver. *Acta Pathol* 1986 (Japan). 36:1477-1485.

CALIFORNIA (Glendale) - Dermatofibrosarcoma protuberans
ARIZONA (Phoenix) - Fibromatosis (extra-abdominal desmoid)
UTAH (Salt Lake City) - Dermatofibrosarcoma protuberans
OKLAHOMA (Ardmore) - Dermatofibrosarcoma protuberans
MICHIGAN (Royal Oak) - Dermatofibrosarcoma protuberans
MICHIGAN (Ann Arbor) - Dermatofibrosarcoma protuberans
INDIANA (Fort Wayne) - Dermatofibrosarcoma protuberans
KENTUCKY (Ft. Knox) - Dermatofibrosarcoma protuberans – check other areas to rule out
fibrosarcoma changes
ILLINOIS (Park Ridge) - Hemangiopericytoma
FLORIDA (Miami) - Dermatofibrosarcoma protuberans
FLORIDA (Winter Haven) - Desmoid, fibromatosis
LOUISIANA (Metairie) - Dermatofibrosarcoma protuberans
NEW JERSEY (Short Hills) - Dermatofibrosarcoma protuberans
PENNSYLVANIA (Philadelphia) - Dermatofibrosarcoma protuberans
MASSACHUSETTS (Medfield) - Dermatofibrosarcoma protuberans

DIAGNOSIS:

**DERMATOFIBROSARCOMA PROTUBERANS, LEFT THIGH AND
GROIN**

TY9100, M88321

REFERENCES:

- Pedentour F, Coindre JM, Sozzi G, et al. Supernumerary Ring Chromosomes Containing Chromosome 17 Sequences. A Specific Feature of Dermatofibrosarcoma Protuberans. *Cancer Genet Cytogenet* 1994; 76(1):1-9.
- Jimenez FJ, Grichnick JM, Buchanan MD and Clark RE. Immunohistochemical Margin Control Applied to Mohs Micrographic Surgical Excision of Dermatofibrosarcoma Protuberans. *J. Dermatol Surg Oncol* 1994; 20 (10):687-689. (Used CD-34 Antigen to Clearly Mark Extent of Tumor).
- Connelly JH and Evans HL. Dermatofibrosarcoma Protuberans. A Clinicopathologic Review with Emphasis on Fibrosarcomatous Areas. *Am J Surg Pathol* 1992; 16:921-925.
- Lopes JM and Paviva ME. Dermatofibrosarcoma Protuberans. Histological and Ultrastructural Study of 11 Cases with Emphasis on the Study of Recurrences and Histogenesis. *Pathol Res Pract* 1991; 187:806-813.
- Diaz-Cascado C, Weyers W, Borrego L, et al. Dermatofibrosarcoma Protuberans with Fibrosarcomatous Areas. A Clinicopathologic and Immunohistochemical Study of Four Cases. *Am J Dermatopathol* 1997; 19(6):562-567. (Director's note: All fibrosarcomatous DFSPs in this study were CD-34 positive.)

CALIFORNIA (Glendale) - Myxofibrosarcoma
ARIZONA (Phoenix) - Myxoid malignant fibrous histiocytoma
UTAH (Salt Lake City) - Pleomorphic liposarcoma
OKLAHOMA (Armore) - Sarcoma, favor liposarcoma (myxoid type)
MICHIGAN (Royal Oak) - Myxoid and round cell liposarcoma
MICHIGAN (Ann Arbor) - Myxoid malignant fibrous histiocytoma
INDIANA (Fort Wayne) - Dedifferentiated retroperitoneal liposarcoma (with MFH pattern); high grade myxoid MFH
KENTUCKY (Ft. Knox) - Malignant fibrous histiocytoma, myxoid variant
ILLINOIS (Park Ridge) - Vascular leiomyosarcoma
FLORIDA (Miami) - Pleomorphic liposarcoma (round cell)
FLORIDA (Winter Haven) - Liposarcoma
LOUISIANA (Metairie) - Inflammatory malignant fibrous histiocytoma
NEW JERSEY (Short Hills) - Malignant fibrous histiocytoma
PENNSYLVANIA (Philadelphia) - Myxoid malignant fibrous histiocytoma
MASSACHUSETTS (Medfield) - Myxoid malignant fibrohistiocytoma

DIAGNOSIS:

**MYXOID MALIGNANT FIBROUS HISTIOCYTOMA,
RETROPERITONEUM**

TY4600, M88303

REFERENCES:

- Jaques DP, Coit DG, Hajdu SI, and Brennan MF. Management of Primary and Recurrent Soft Tissue Sarcoma of the Retroperitoneum. *Ann Surg* 1990; 212:51-59.
Bevilacqua RG, Rogatto A, Hajdu SI and Brennan MF. Prognostic Factors in Primary Retroperitoneal Soft Tissue Sarcoma. *Arch Surg* 1992; 126:328-334.
McGrath PC. Retroperitoneal Sarcomas. *Semin Surg Oncol* 1994; 10:364-368.
Enterline HT. Histopathology of Sarcomas. *Semin Oncol* 1981; 8:133-155.
Karakousis CP, Velez AF, Gerstenbluth BA and Driscoll BA. Resectability and Survival of Retroperitoneal Sarcomas. *Ann Surg Oncol* 1996; 3(2):150-158.
Liao QL, Parkekh SG, Rosenberg AE, and Mankin HJ. Assessing Prognosis for High Grade Soft Tissue Sarcomas. Search for a Marker. *Ann Surg Oncol* 1996; 3(6):550-557.

CALIFORNIA (Glendale) - Spindle cell lipoma
ARIZONA (Phoenix) - Spindle cell lipoma
UTAH (Salt Lake City) - Spindle cell lipoma
OKLAHOMA (Armore) - Benign lipoma, favor spindle type
MICHIGAN (Royal Oak) - Diffuse neurofibroma
MICHIGAN (Ann Arbor) - Spindle cell lipoma
INDIANA (Fort Wayne) - Spindle cell lipoma
KENTUCKY (Ft. Knox) - Myxoid fibrolipoma vs pleomorphic lipoma
ILLINOIS (Park Ridge) - Spindle cell lipoma
FLORIDA (Miami) - Spindle cell lipoma
FLORIDA (Winter Haven) - Spindle cell lipoma
LOUISIANA (Metairie) - Spindle cell lipoma
NEW JERSEY (Short Hills) - Intermuscular hemangioma/angiomyolipoma, infiltrative
PENNSYLVANIA (Philadelphia) - Angiolipoma
MASSACHUSETTS (Medfield) - Pleomorphic lipoma (spindle cell type)

DIAGNOSIS:

SPINDLE CELL LIPOMA, NECK

TY0600,M88570

REFERENCES:

Shmookler BM and Enzinger FM. Pleomorphic Lipoma. A Benign Tumor Simulating Liposarcoma. A Clinicopathologic Analysis of 48 Cases. *Cancer* 1981; 47:126-133.
Richmond I, et al. Spindle Cell Lipoma—A Pseudoangiomatous Variant. *Histopathol* 1995; 27(2):201.
Goldsmith AJ, et al. Pathologic Quiz Case 1. Spindle Cell Lipoma. *Arch Otolaryngol Head Neck Surg* 1993; 119(5):570-572.
Fechner RE. Spindle Cell Lipoma. *Arch Otolaryngol* 1984; 110(11):766-769.

CALIFORNIA (Glendale) - Pleomorphic liposarcoma
ARIZONA (Phoenix) - Liposarcoma, favor intermediate grade
UTAH (Salt Lake City) - Dedifferentiated liposarcoma
OKLAHOMA (Ardmore) - Pleomorphic liposarcoma
MICHIGAN (Royal Oak) - Pleomorphic liposarcoma
MICHIGAN (Ann Arbor) - Pleomorphic hyalinizing angioectatic tumor (soft parts)
INDIANA (Fort Wayne) - Angiolipoma with degenerative myofibroblastic changes
KENTUCKY (Ft. Knox) - Pleomorphic rhabdomyosarcoma
ILLINOIS (Park Ridge) - Neurofibroma
FLORIDA (Miami) - Pleomorphic liposarcoma
FLORIDA (Winter Haven) - Liposarcoma
LOUISIANA (Metairie) - Sclerosing liposarcoma
NEW JERSEY (Short Hills) - Atypical fibroxanthoma; Malignant fibrous histiocytoma
PENNSYLVANIA (Philadelphia) - Pleomorphic lipoma (benign)
MASSACHUSETTS (Medfield) - Pleomorphic liposarcoma

DIAGNOSIS:

**MIXED LIPOSARCOMA, WELL DIFFERENTIATED AND
PLEOMORPHIC SUBTYPES (“DEDIFFERENTIATED LIPOSARCOMA”),
THIGH**

TY9100, M88513

REFERENCES:

Fletcher DC, Ackerman M, de Weaver L, et al. Correlation Between Clinicopathological Features and Karyotype in Lipomatous Tumors. A Report of 178 Cases from Chromosomes and Morphology (CHAMP) Collaborative Group. *Am J Pathol* 1996; 148(2):623-630.
Kilpatrick SE, Doyon J, Peter FM, et al. The Clinicopathologic Spectrum of Myxoid and Round Cell Liposarcoma. A Study of 95 Cases. *Cancer* 1994; 77(8):1450-1458.

CALIFORNIA (Glendale) - Neurofibroma
ARIZONA (Phoenix) - Neurofibroma, atypical
UTAH (Salt Lake City) - Neurofibroma
OKLAHOMA (Ardmore) - "Borderline" neurofibromatous lesions of von Recklinghausen's disease
MICHIGAN (Royal Oak) - Ancient neurofibroma
MICHIGAN (Ann Arbor) - Malignant peripheral nerve sheath tumor
INDIANA (Fort Wayne) - Neurofibroma, thigh
KENTUCKY (Ft. Knox) - Malignant peripheral nerve sheath tumor with rhabdomyoblastic differentiation (malignant Triton tumor)
ILLINOIS (Park Ridge) - Malignant neurofibroma
FLORIDA (Miami) - Malignant Schwannoma
FLORIDA (Winter Haven) - Liposarcoma
LOUISIANA (Metairie) - Neurofibroma
NEW JERSEY (Short Hills) - Neurofibroma with early malignant change
PENNSYLVANIA (Philadelphia) - Granular cell tumor or neurofibroma
MASSACHUSETTS (Medfield) - Neurofibrosarcoma

DIAGNOSIS:

**MALIGNANT PERIPHERAL NERVE SHEATH TUMOR (MPNST),
THIGH**

TY9100, M95600

REFERENCES:

Kawahara E, Oda Y, Ooi A, Katsuda S, et al. Expression of Glial Fibrillary Acidic Protein (GFAP), Vimentin, S-100 Protein. Neurofilaments in 38 Schwannomas and 18 Neurofibromas. *Am J Surg Pathol* 1988; 12(2):115-120.
Sanguenza OP and Reguena L. Neoplasms with Neural Differentiation. A Review Part II: Malignant Neoplasms. *Am J Dermatopathol* 1998; 20(1):89-102.

CALIFORNIA (Glendale) - Sarcomatoid renal cell carcinoma
ARIZONA (Phoenix) - Sarcoma, ? leiomyosarcoma
UTAH (Salt Lake City) - Leiomyosarcoma
OKLAHOMA (Ardmore) - Leiomyosarcoma
MICHIGAN (Royal Oak) - Malignant spindled cell tumor probable malignant fibrous histiocytoma
MICHIGAN (Ann Arbor) - Epithelioid angiomyolipoma
INDIANA (Ft. Wayne) - Leiomyosarcoma, inferior pole, kidney
KENTUCKY (Ft. Knox) - Malignant muscular neoplasm – favor rhabdomyosarcoma (need to identify rhabdomyoblasts) rule out leiomyosarcoma
ILLINOIS (Park Ridge) - Angiomyolipoma
FLORIDA (Miami) - Vascular leiomyosarcoma
FLORIDA (Winter Haven) - Sarcoma
LOUISIANA (Metairie) - Leiomyosarcoma
NEW JERSEY (Short Hills) - Leiomyosarcoma
PENNSYLVANIA (Philadelphia) - Hemangiopericytoma
MASSACHUSETTS (Medfield) - Hemangiopericytoma

DIAGNOSIS:

LEIOMYOSARCOMA, RENAL CAPSULE

T71150, M88903

REFERENCES:

- Ochiai K, Onitsuka H, Honda H, et al. Leiomyosarcoma of the Kidney CT and MR. Appearance. *J Comput Assist Tumor* 1993; 17:656-658.
- Grigon DJ, Ayala AG, Ro JY, et al. Primary Sarcomas of the Kidney. A Clinicopathologic and DNA Flow Cytometric Study of 17 Cases. *Cancer* 1990; 65:1611-1618.
- Myerson D, Rosenfield AT and Itzhak Y. Renal Capsular Tumors. The Angiographic Features. *J Urol* 1979; 121(2):238-241.
- Tsukamota T and Lieber MM. Sarcomas of the Kidney, Urinary Bladder, Prostate, Spermatic Cord, Paratestis, and Testis in Adults. In: *Raaf JH, ed. Soft Tissue Sarcomas and Treatment*. St. Louis Mosby Yearbook; 1992.

CALIFORNIA (Glendale) - Leiomyosarcoma
ARIZONA (Phoenix) - Leiomyosarcoma
UTAH (Salt Lake City) - Leiomyosarcoma
OKLAHOMA (Ardmore) - Leiomyosarcoma
MICHIGAN (Royal Oak) - Rhabdomyosarcoma
MICHIGAN (Ann Arbor) - Leiomyosarcoma
INDIANA (Ft. Wayne) - Leiomyosarcoma, femur
KENTUCKY (Ft. Knox) - Rhabdomyosarcoma, spindle cell subtype of embryonal
ILLINOIS (Park Ridge) - Alveolar rhabdomyosarcoma
FLORIDA (Miami) - Leiomyosarcoma
FLORIDA (Winter Haven) - Leiomyosarcoma
LOUISIANA (Metairie) - Leiomyosarcoma
NEW JERSEY (Short Hills) - Leiomyosarcoma
PENNSYLVANIA (Philadelphia) - Leiomyosarcoma
MASSACHUSETTS (Medfield) - Leiomyosarcoma

DIAGNOSIS:

LEIOMYOSARCOMA, LEG

TY9400, M88903

REFERENCES:

- Guillou L, Coindre JM, Bonichon F, Bui NB, et al. Comparative Study of the National Cancer Institute and French Federation of Cancer Centers. Sarcoma Group Grading Systems in a Population of 410 Adult Patients with Soft Tissue Sarcoma. *J Clin Oncol* 1997; 15(1):350-362.
- Lazova R, Moynes R, May D, and Scott G. LN-2 (CD-74). A Marker to Distinguish Atypical Fibroxanthoma from Malignant Fibrous Histiocytoma. *Cancer* 1997; 79:2115-2124.
- Fong Y, Coit DG, Woodruff JM and Brannan MF. Lymph Node Metastasis from Soft Tissue Sarcoma in Adults-Analysis of Data from a Prospective Database of 1772 Sarcoma Patients. *Ann Surg* 1993; 217(1):72-77.
- Hashimoto H, Daimaru Y, Takeshita S, Tsuneyoshi, et al. Prognostic Significance of Histologic Parameters of Soft Tissue Sarcomas. *Cancer* 1992; 70(12):2816-2822.

CALIFORNIA (Glendale) - Leiomyosarcoma
ARIZONA (Phoenix) - Sarcoma, favor rhabdomyosarcoma
UTAH (Salt Lake City) - Leiomyosarcoma
OKLAHOMA (Ardmore) - Myxoid malignant fibrous histiocytoma
MICHIGAN (Royal Oak) - Kaposi's sarcoma
MICHIGAN (Ann Arbor) - Monophasic synovial sarcoma
INDIANA (Ft. Wayne) - Inflammation myofibroblastic tumor
KENTUCKY (Ft. Knox) - Sarcoma ?leiomyosarcoma. (final deferred pending additional workup and history concerning prior mass)
ILLINOIS (Park Ridge) - Malignant peripheral nerve tumor
FLORIDA (Miami) - Angiosarcoma
FLORIDA (Winter Haven) - Dermatofibrosarcoma
LOUISIANA (Metairie) - Malignant spindle cell neoplasm
NEW JERSEY (Short Hills) - Fibrosarcoma
PENNSYLVANIA (Philadelphia) - Rhabdomyosarcoma
MASSACHUSETTS (Medfield) - Myxoid fibrosarcoma

DIAGNOSIS:

**FIBROSARCOMA WITH FOCAL MYXOID CHANGE
("MYXOFIBROSARCOMA"), LEG**

TY9400, M88103

REFERENCES:

- Fletcher CDM and Behan A. Myxofibrosarcoma (Myxoid Malignant Fibrous Histiocytoma). Clinicopathologic Analysis of 45 Cases with Emphasis on the Low Grade Variant (Abstract). *Lab Invest* 1992; 66:7A.
- Angervall L, Kindblom LG and Merck C. Myxofibrosarcoma. A Study of 30 Cases. *Acta Pathol Microbiol Scand (A)* 1977; 85:127-140.
- Merck C, Angervall L, Kindblom LG, et al. Myxofibrosarcoma. A Malignant Soft Tissue Tumor of Fibroblastic-Histiocytic Origin. A Clinicopathologic and Prognostic Study of 110 Cases Using Multivariate Analysis. *APMIS*, Suppl 282 1983; 91:1-40.
- Evans HL. Low Grade Fibromyxoid Sarcoma. A Report of 12 Cases. *Am J Surg Pathol* 1993; 17:595-600.

CALIFORNIA (Glendale) - Angiolipoma
ARIZONA (Phoenix) - Lipoma-like liposarcoma
UTAH (Salt Lake City) - Lipoma
OKLAHOMA (Ardmore) - Benign lipoma
MICHIGAN (Royal Oak) - Angiolipoma
MICHIGAN (Ann Arbor) - Atypical lipoma
INDIANA (Ft. Wayne) - Atypical lipoma
KENTUCKY (Ft. Knox) - ? atypical lipoma
ILLINOIS (Park Ridge) - Well-differentiated liposarcoma
FLORIDA (Miami) - Atypical lipoma
FLORIDA (Winter Haven) - Fibrous lipoma
LOUISIANA (Metairie) - Lipoma
NEW JERSEY (Short Hills) - Lipoblastoma
PENNSYLVANIA (Philadelphia) - Well-differentiated liposarcoma
MASSACHUSETTS (Medfield) - Myxoid lipoma

DIAGNOSIS:

ATYPICAL LIPOMA, BACK

TY1100, M88500

REFERENCES:

Suster S and Fisher C. Immunoreactivity for the Human Hematopoietic Progenitor Cell Antigen (CD-34) in Lipomatous Tumors. *Am J Surg Pathol* 1997; 21:195-200.
Michal M and Zamecnik M. Synovial Metaplasia in Lipoma. *Am J Dermatopathol* 1998; 20(3):285-289.
Azumi N, Curtis J, Kempson RL, et al. Atypical and Malignant Neoplasms Showing Lipomatous Differentiation. A Study of 111 Cases. *Am J Surg Pathol* 1987; 11:161-183.