273

S E M I N A R

S O F T T I S S U E T U M O R S

Moderated by

Juan Rosai, M.D.
Professor and Director
Anatomic Pathology
University of Minnesota
Minneapolis, Minnesota

April 16, 1977
2:00 - 5:00 P.M.

At a Meeting of
The Wisconsin Society of Pathologists, Inc.
held at
MECCA Convention Center
Milwaukee, Wisconsin

WSP-1-77

Contributors: Marilyn O'Brien, M.D.
Rocco Latorraca, M.D.
Trinity Memorial Hospital
Cudahy, Wisconsin

This 18 year old girl had been aware of some pain and discomfort on the lateral aspect of her left thigh for several years. There was no recollection of what may have started this pain. There was no known injury or fall. About a year before her hospitalization, her pain and discomfort increased with dancing and increased activity. The area involved was the outer aspect of the left thigh just below the greater trochanter. About four months prior to admission, a small swelling was noted. The x-rays of the extremity were not available. The consultant's report described an ill-defined soft tissue swelling with some speckling in the tissues, indicative of calcification. There was no bone involvement. Pelvis and chest x-rays were negative. The mass was excised. It was oval, encapsulated, lobular and creamy tan to light red with vascular markings. Lab Data - normal.

WSP-2-77

Contributor: Mary Fernandez, M.D.
Lutheran Hospital of Milwaukee
Milwaukee, Wisconsin

The history is that of a 39 year old white male school teacher who first noticed a tumor beneath the left eye in January of 1976. In November of 1976 the lesion was estimated to measure 0.75 cm in diameter. At the time of excision, in December 1976, it measured 1 cm in diameter. The lesion was located beneath the orbicularis oculi muscle and was described by the surgeon as being attached to the periosteum. There has been no evidence of recurrence to the present date.

WSP-3-77

Contributor: J.M.B. Bloodworth, Jr., M.D.
Veterans Administration Hospital
Madison, Wisconsin

This 80 year old white male had a lesion excised from the right lower extremity with subsequent skin grafting in May 1974. He again underwent surgery in September 1975, with wide excision and split thickness skin grafting. Tumor was found at the margins and he underwent chemosurgical excision in October 1975. Since then he has had recurrence of his tumor and now enters for further treatment. Pertinent physical findings: This is a well-developed, well-nourished male who appears younger than his stated age and is in no acute distress. Examination of the lower extremity reveals a well-healed donor site on the left thigh and a healed split-thickness skin graft on the distal aspect of the right gastrocnemius. There is a large skin defect in this area which is covered by a well-healed graft. The contour of the calf is somewhat distorted. There is a firm mass in this area which does not appear to be adherent to the underlying bony structures. Because of several recurrences, an above-knee amputation was recommended. However, the patient preferred to risk a below-knee amputation which was performed. The patient is also on estrogen Rx for an adenocarcinoma of prostate.

WSP-4-77

Contributor: J.M.B. Bloodworth, Jr., M.D.

This 80 year old white male underwent excision of a right upper lateral chest wall mass in May 1976. His past medical history includes chronic obstructive pulmonary disease and status several years post thoracotomy (histoplasmosis). Three months after excision the tumor recurred and at that time he underwent wide excision of the chest wall tumor. Radiotherapy was then recommended, however, the patient decided to postpone treatment. He expired in December 1976. (No autopsy was done.)

WSP-5-77 Contributor: J.M.B. Bloodworth, Jr., M.D.

A 25 year old Negro male with large subcutaneous masses measuring 2 x 3 cm in the left inferior aspect of the scrotum, 2 x 1 cm just inferior to the umbilicus slightly to the right of midline, and 3 x 2 cm on the left flank approximately 6 cm inferior to the posterior axillary line. At surgery, the masses were firm and fairly adherent to underlying tissues.

WSP-6-77 Contributor: Alfonso Deiparine, M.D.
Deaconess Hospital
Milwaukee, Wisconsin

This is a 23 year old white female who first noted a mass in the left upper arm over the area of the triceps muscle in late 1973. It gradually increased in size and was somewhat tender. She underwent local excision on 5/74 in another hospital with a final report of pleomorphic fibroma with areas of sarcomatous degeneration. Her course was uneventful until April of 1975, when she noted recurrent nodularity in the scar. This also had gradually increased in size and was re-excised on 7/2/75. The patient had a left thoracotomy at age 9 for apparent empyema following pneumonia. Laboratory studies showed HGB, 14; HCT, 42; WBC, 7,600; Platelets 7,000. Urinalysis was negative. Chest x-ray was clear.

WSP-7-77

Contributor: Robert Lipo, M.D.
Family Hospital
Milwaukee, Wisconsin

A 68 year old female admitted for diarrhea. On physical examination a grapefruit sized mass was present on left lower thigh, clinically thought to be lipoma. By history, however, it was present only six months and had grown steadily in size. The lesion was resected.

WSP-8-77

Contributor: Donald J. Stevenson, M.D.
Madison General Hospital
Madison, Wisconsin

A large lung tumor from a man who is 66 years old. The first manifestation of this tumor was a subcutaneous osseous producing malignant tumor located in the tissues of the upper arm. No other tumor was present in any of his bones.

WSP-9-77

Contributor: Enid Gilbert, M.D.
University of Wisconsin
School of Medicine
Madison, Wisconsin

A 22 year old male who noted discomfort in Achilles tendon for approximately two years. A nodule was noted on exam and was resected.

WSP-10-77

Contributors: Marilyn O'Brien, M.D.
Rocco Latorraca, M.D.
Trinity Memorial Hospital
Cudahy, Wisconsin

R.B. Hilar or mediastinal mass. This 25 year old male was seen by his physician for chest pain. Chest x-ray revealed a left hilar infiltrated. There was no improvement with antibiotic therapy.

Lab Data: WBC - 9,800 Hb - 16.1 gm crit 48.7%
Seg. 56 Lymph 29 Mono 6 Eos. 4 Stab 5
Sed. rate 31 mm.
Skin test neg. for PPD - Blasto, Coccidio- histoplasmosis
SMA- LDH - slightly elevated
Cultures of sputum - normal flora Acid fast- neg.
Fungus cultures- neg.
Cytology studies - neg.

Chest x-ray showed enlargement of the mass which appeared within the anterior segment of the left upper lobe. It was well defined and measured 6 cm in diameter. A thoracotomy was done.

WSP-11-77

Contributors: Marilyn O'Brien, M.D.
Rocco Latorraca, M.D.

This 21 year old male had acute abdominal pain. Flat plate of the abdomen and IVP revealed a mass. Two months previously, a left inguinal herniorraphy was performed. Left lower quadrant pain was present prior to the herniorraphy. GI, gallbladder and IVP x-rays were negative. The pain was more intense in the upright position than lying down. The SMA was normal. The patient was explored. A large retroperitoneal mass was present on the left side. The mass was removed, including spleen, left kidney, adrenal (L), tail of pancreas.

WSP-12-77

Contributors: Marilyn O'Brien, M.D.
Rocco Latorraca, M.D.

This 49 year old woman had been seen in consultation for her vascular problem (thrombophlebitis of the right leg). Examination revealed a swelling in the right posterior thigh. Angiograms and excisional biopsy was done. The area involved was indurated, tender, and there was brawny discoloration of the skin. The peripheral arterial pulses were good. Lab Data: WBC - 6,100 Seg. 59% Lymph 39 Mono 3%
Hb - 13.9 gm. crit - 40.5%
SMA - normal

WISCONSIN SOCIETY OF CLINICAL PATHOLOGISTS
1977 ANNUAL TUMOR SEMINAR ON
TUMORS OF SOFT TISSUE

Saturday, April 16, 1977

DR. JUAN ROSAI
Professor of Laboratory Medicine and Pathology
Director of Anatomic Pathology, University of Minnesota
Minneapolis, Minnesota

CASE 1: SOFT TISSUE, THIGH - SYNOVIAL SARCOMA

Batsakis, J.G., Nishiyama, R.H., and Sullinger, G.D.: Synovial sarcomas of the neck. Arch. Otolaryngol., 85:327-331, 1967.
Cade, S.: Synovial sarcoma. J. Royal College of Surgeons of Edinburgh, 8:1-51, 1962.
Gabbiani, G., Kaye, G.I., Lattes, R., and Majno, G.: Synovial sarcoma; electron microscopic study of a typical case. Cancer, 28:1031-1039, 1971.
Haagensen, C.D., and Stout, A.P.: Synovial sarcoma. Ann. Surg., 120:826-842, 1944.
Lieberman, P.H., Foote, F.W., Jr., Stewart, F.W., and Berg, J.W.: Alveolar soft-part sarcoma. JAMA, 198:1047-1051, 1966.
Mackenzie, D.H.: Synovial sarcoma; a review of 58 cases. Cancer, 19:169-180, 1966.
Roth, J.A., Enzinger, F.M., and Tannebaum, M.: Synovial sarcoma of the neck: a followup study of 24 cases. Cancer, 35:1243-1253, 1975.

CASE 2: SOFT TISSUE, INFRAORBITAL REGION - REACTIVE FIBROBLASTIC PROLIFERATION (CONSISTENT WITH NODULAR FASCIITIS)

Allen, P.W.: Nodular fasciitis. Pathology, 4:9-26, 1972.
Blackburn, W.R., and Cosman, B.: Histologic basis of keloid and hypertrophic scar differentiation; clinicopathologic correlation. Arch. Path., 82:65-71, 1966.
Chung, E.B., and Enzinger, F.M.: Proliferative fasciitis. Cancer, 36:1450-1458, 1975.
Kleinstiver, B.J., and Rodriguez, H.A.: Nodular fasciitis. A study of forty-five cases and review of the literature. J. Bone and Joint Surg., 50:1204-1212, 1968.
Konwaler, B.E., Keasbey, L., and Kaplan, L.: Subcutaneous pseudosarcomatous fibromatosis (fasciitis). Am. J. Clin. Path., 25:241-252, 1955.
Price, E.B., Jr., Silliphant, W.M., and Shuman, R.: Nodular fasciitis: A clinicopathologic analysis of 65 cases. Am. J. Clin. Pathol., 35:122-136, 1961.
Soule, E.H.: Proliferative (nodular) fasciitis. Arch. Path., 73:437-444, 1962.

CASE 3: SOFT TISSUE, LEG - PLEOMORPHIC SARCOMA (CONSISTENT WITH MALIGNANT FIBROUS HISTIOCYTOMA, MYXOID VARIANT)

See under Case 4.

CASE 4 - SOFT TISSUE, CHEST WALL - MALIGNANT FIBROUS HISTIOCYTOMA

Fu, Y-S., Gabbiani, G., Kaye, G.I., and Lattes, R.: Malignant soft tissue tumors of probable histiocytic origin (malignant fibrous histiocytomas): general considerations and electron microscopic and tissue culture studies. Cancer, 35:176-198, 1975.

Kauffman, S.L., and Stout, A.P.: Histiocytic tumors (fibrous xanthoma and histiocytoma) in children. Cancer, 14:469-482, 1961.

Kempson, R.L., and Kyriakos, M.: Fibroxanthosarcoma of the soft tissues. A type of malignant fibrous histiocytoma. Cancer, 29:961-976, 1972.

Kyriakos, M., and Kempson, R.L.: Inflammatory fibrous histiocytoma. Cancer, 37:1584-1606, 1976.

O'Brien, J.E., and Stout, A.P.: Malignant fibrous xanthomas. Cancer, 17:1445-1455, 1964.

Ozzello, L., Stout, A.P., and Murray, M.R.: Cultural characteristics of malignant histiocytomas and fibrous xanthomas. Cancer, 16:331-344, 1963.

Soule, H.E., and Enriquez, P.: Atypical fibrous histiocytoma, malignant fibrous histiocytoma, malignant histiocytoma and epithelioid sarcoma. A comparative study of 65 tumors. Cancer, 30:128-143, 1972.

CASE 5 - SOFT TISSUE (SCROTUM, ABDOMINAL WALL AND FLANK) - GRANULAR CELL TUMORS (MULTIPLE)

Al-Sarraf, M., Loud, A.V., and Vaitkevicius, V.K.: Malignant granular cell tumor; histochemical and electron microscopic study. Arch. Pathol., 91:550-558, 1971.

Budzilovich, G.N.: Granular cell "myoblastoma" of vagus nerve. Acta Neruopathol., 10:162-169, 1968.

Christ, M.L., and Ozzello, L.: Myogenous origin of a granular cell tumor of the urinary bladder. Am. J. Clin. Pathol., 56:736-749, 1971.

Fisher, E.R., and Wechsler, H.: Granular cell myoblastoma-a misnomer; electron microscopic and histochemical evidence concerning its schwann cell derivation and nature (granular cell schwannoma). Cancer, 15:936-957, 1962.

Garancis, J.C., Komorowski, R.A., and Kuzma, J.F.: Granular cell myoblastoma. Cancer, 25:542-550, 1970.

Moscovic, E.A., and Azar, H.A.: Multiple granular cell tumors ("myoblastomas"); case report with electron microscopic observations and review of the literature. Cancer, 20:2032-2047, 1967.

Sobel, H.J., Marquet, E., and Schwarz, R.: Granular degeneration of appendiceal smooth muscle. Arch. Pathol., 92:427-432, 1971.

Strong, E.W., McDivitt, R.W., and Brasfield, R.D.: Granular cell myoblastoma. Cancer, 25:415-422, 1970.

CASE 6 - SOFT TISSUE, ARM - MUSCULOAPONEUROTIC FIBROMATOSIS (EXTRA-ABDOMINAL DESMOID)

Dehner, L.P., and Askin, F.B.: Tumors of fibrous tissue origin in childhood. A clinicopathologic study of cutaneous and soft tissue neoplasms in 66 children. Cancer, 38:888-900, 1976.

Enzinger, F.M., and Shiraki, M.: Musculo-aponeurotic fibromatosis of the shoulder girdle (extra-abdominal desmoid). Analysis of thirty cases followed up for ten or more years. Cancer, 20:1131-1140, 1967.

Gabbiani, G., and Majno, G.: Dupuytren's contracture: fibroblast contraction? An ultrastructural study. Am. J. Pathol., 66:131-146, 1972.
Hunt, R.T.N., Morgan, H.C., and Ackerman, L.V.: Principles in the management of extra-abdominal desmoids. Cancer, 13:825-836, 1960.
Stout, A.P.: Juvenile fibromatoses. Cancer, 7:953-978, 1954.
Welsh, R.A.: Intracytoplasmic collagen formations in desmoid fibromatosis. Amer. J. Path., 49:515-535, 1966.

CASE 7 - SOFT TISSUE, THIGH - MALIGNANT FIBROUS HISTIOCYTOMA

Guccion, J.G., and Enzinger, F.M.: Malignant giant cell tumor of soft parts. An analysis of 32 cases. Cancer, 29:1518-1529, 1972.
Salm, R., and Sissons, H.A.: Giant cell tumours of soft tissues. J. Path. Bact. 107:27-39, 1972.

CASE 8 - SOFT TISSUE, ARM - EXTRASKELETAL OSTEOSARCOMA

Allan, C.J., and Soule, E.H.: Osteogenic sarcoma of the somatic soft tissues. Clinicopathologic study of 26 cases and review of literature. Cancer, 27:1121-1133, 1971.
Fine, G., and Stout, A.P.: Osteogenic sarcoma of the extraskeletal soft tissues. Cancer, 9:1027-1043, 1956.
Kauffman, S.L., and Stout, A.P.: Extraskeletal osteogenic sarcomas and chondrosarcomas in children. Cancer, 16:432-439, 1963.

CASE 9 - SOFT TISSUE, ANKLE - SARCOMA (CONSISTENT WITH MONOPHASIC SYNOVIAL SARCOMA)

Bearman, R.M., Noe, J., and Kempson, R.L.: Clear cell sarcoma with melanin pigment. Cancer, 36:977-984, 1975.
Bliss, B.O., and Reed, R.J.: Large cell sarcomas of tendon sheath. Malignant giant cell tumors of tendon sheath. Amer. J. Clin. Path., 49:776-781, 1968.
Enzinger, F.M.: Epithelioid sarcoma. A sarcoma simulating a granuloma or a carcinoma. Cancer, 26:1029-1041, 1970.
Gabbiani, G., Fu, Y-S., Kaye, G.I., Lattes, R., and Majno, G.: Epithelioid sarcoma. A light and electron microscopic study suggesting a synovial origin. Cancer, 30:486-499, 1972.
Hajdu, S. I., Shiu, M. H., and Fortner, J. G.: Tendosynovial sarcoma; a clinicopathologic study of 136 cases. Cancer, 39: 1201-1217, 1977.

CASE 10 - MEDIASTINUM - GERMINOMA (SEMINOMA)

Levine, G.D.: Primary thymic seminoma-a neoplasm ultrastructurally similar to testicular seminoma and distinct from epithelial thymoma. Cancer, 31:729-741, 1973.
Martini, N., Golbey, R.B., Hajdu, S.I., Whitmore, W.F., and Beattie, E.J., Jr.: Primary mediastinal germ cell tumors. Cancer, 33:763-769, 1974.
Oberman, H.A., and Libcke, J.H.: Malignant germinal neoplasms of the mediastinum. Cancer, 17:498-507, 1964.
Pachter, M.R., and Lattes, R.: "Germinal" tumors of the mediastinum: A clinicopathologic study of adult teratomas, teratocarcinomas, choriocarcinomas and seminomas. Dis. Chest., 45:301-310, 1964.
Schantz, A., Sewall, W., and Castleman, B.: Mediastinal germinoma. A study of 21 cases with an excellent prognosis. Cancer, 30:1189-1194, 1972.

CASE 11 - SOFT TISSUE, RETROPERITONEUM - LIPOSARCOMA, MYXOID

Enzinger, F.M., and Harvey, D.A.: Spindle cell lipoma. Cancer, 36:1852-1859, 1975.

Enzinger, F.M., and Winslow, D.J.: Liposarcoma. A study of 103 cases. Virchows Arch. path. Anat., 335:367-388, 1962.

Ireland, D.C.R., Soule, E.H., and Ivins, J.C.: Myxoma of somatic soft tissues. A report of 58 patients, 3 with multiple tumors and fibrous dysplasia of bone. Mayo Clin. Proc., 48:401-410, 1973.

Kindblom, L-G., and Angervall, L.: Histochemical characterization of muco-substances in bone and soft tissue tumors. Cancer, 36:985-994, 1975.

Kindblom, L-G., and Angervall, L.: Liposarcoma. A clinicopathologic, radiographic and prognostic study. Acta Pathologica et Microbiologica Scand., Section A 1975. Supplement No. 253.

Stout, A.P.: Liposarcoma - The malignant tumor of lipoblasts. Ann. Surg., 119:86-107, 1944.

CASE 12 - SOFT TISSUE, THIGH - LIPOSARCOMA, MYXOID

Martel, W., and Abell, M.R.: Radiologic evaluation of soft tissue tumors. A retrospective study. Cancer, 32:352-366, 1973.

P-1-73

TRINITY MEMORIAL HOSPITAL

5900 South Lake Drive — Cudahy, Wisconsin 53110 Telephone: 414 - 769-9000

DEPARTMENT OF LABORATORY MEDICINE

Rocco Latorraca, M. D.
Director of Laboratories

Marilyn J. O'Brien, M. D.
Associate Pathologist

Antonio A. Rabor, Jr., M. D.
Associate Pathologist

Harry D. Spencer, Ph. D.
Clinical Microbiology

John M. Erikson, Ph. D.
Clinical Chemistry

S 2762-73 Mass from the left thigh 18 year old female

#1. The specimen consists of an oval encapsulated lobular mass, creamy tan to light red with vascular markings along the periphery. The cut surface is creamy tan with focal gray and yellow tan areas. The specimen weighs 34 grams and measures 4.6 x 3.8 x 3.0 cm. The tissue is firm, resilient and cuts with uniform resistance.

2. The specimen consists of lobulated blood stain masses measuring 8.6 x 5 x 2 cm. It is soft, moist and yellow tan on the cut surface. There is a dark red membranous area that is gritty and bony in consistency at the periphery.

Diagnosis 1. Synovial cell sarcoma
2. Tumor with foci of ossification.

LUTHERAN HOSPITAL OF MILWAUKEE
MEDICAL LABORATORIES

2200 WEST KILBOURN AVENUE
MILWAUKEE, WISCONSIN 53233
PHONE: 414-344-8800

DWARD A. BIRGE, M. D.
AVID J. LaFOND, M. D.
EORGE C. BARES, M. D.
OLAND C. BROWN, M. D.
ILLIAM J. PIER, JR., M. D.
ETER N. CASEY, M. D.

ANATOMIC PATHOLOGY
CLINICAL PATHOLOGY
CYTOPATHOLOGY
FORENSIC PATHOLOGY
NUCLEAR MEDICINE

WSP-2-77

February 18, 1977

Robert F. Lipo, M.D.
Director of Laboratories
Family Hospital
2711 W. Wells Street
Milwaukee, Wisconsin 53208

Dear Bob:

Enclosed are the unstained slides of the case submitted for the WSP seminar (F 27597-76).

WSP-2-77

The history is that of a 39 year old white male schoolteacher who first noticed a tumor beneath the left eye in January of 1976. In November of 1976 the lesion was estimated to measure 0.75 cm. in diameter. At the time of excision in December 1976 it measures 1 cm. in diameter. The lesion was located beneath the orbicularis oculi muscle and was described by the surgeon as being attached to the periosteum. There has been no evidence of recurrence to the present date.

Sincerely,

Bill

William J. Pier, Jr., M.D.

WJP:m

Encl.

Dr Mary Hernandez Milw Lutheran Hosp.

WSP-3-77

GPO : 1978 O - 597-762

CLINICAL RECORD	TISSUE EXAMINATION

ECIMEN SUBMITTED BY
r. Keene

DATE OBTAINED
7/10/76

ECIMEN
- Muscle from amputation level - Frozen Section
- Right leg

IEF CLINICAL HISTORY (Include duration of lesion and rapidity of growth, if a neoplasm)
Recurrent pleomorphic fibrous histiocytoma.

Prev. surg: VS75-1475, C-590, VS75-1654

EOPERATIVE DIAGNOSIS
Same

ERATIVE FINDINGS
Clinically incision line clean

STOPERATIVE DIAGNOSIS
Same

SIGNATURE AND TITLE
J. S. KEENE, M.D.

PATHOLOGICAL REPORT

ME OF LABORATORY

ACCESSION NO(S).
VS76-1258

(Gross description, histologic examination and diagnoses)

DIAGNOSIS: Fibromyxosarcoma, in subcutaneous and inter-muscular tissues, right leg. Proximal margins appear to be free of tumor. 171.3

NOTE: In comparison with previous sections from this tumor, the current pattern is predominantly fibromyxoid and malignant cytologic appearances are very apparent. The histiocytic and vascular changes are no longer so obvious a feature of the neoplasm.

Frozen Section: Gross: A 2.3x1.4x0.5 cm, red-brown muscle with attached fascia or tendon. Section taken at margin of attachment.

Diagnosis: No evidence of malignancy at muscle margin.

Gross Description:

- See Frozen Section description (1 piece, all tissue used). AA - Remainder.
- Specimen is a right leg amputated below the knee. The foot measures 24 cm from the heel to the great toe and the leg measures 35 cm from the heel to the proximal surgical margin across the tibia and fibula. On the lower right aspect of the calf above the malleolus there is an extensive area of induration and scarring with an 8x9 cm, approximately oval site of skin grafting. There is a 3 cm incision scar in

(Continue on reverse side)

(OVER)

SIGNATURE OF PATHOLOGIST
J. H. TURNER, M.D., Asst Chief, Laboratory Service

DATE
7/16/76

	AGE	SEX	RACE	IDENTIFICATION NO.
gs	80	M	W	

PATIENT'S IDENTIFICATION (For typed or written entries give: Name—last, first, middle; grade; date; hospital or medical facility)
[redacted]
DOB 1/1/96
VAH, Madison, Wisconsin

REGISTER NO.
[redacted]

WARD NO.
7A

TISSUE EXAMINATION
Standard Form 515
GENERAL SERVICES ADMINISTRATION AND INTERAGENCY COMMITTEE ON MEDICAL RECORDS
FPMR 101-11.806-6
OCTOBER 1975
515-107

he first metatarsal space. On incising the leg over the lateral aspect and extending the excision into the foot, there is a fairly well demarcated multilobulated umor mass lying in the muscle planes between fascial sheaths. Overall this lobulated tumor mass measures 15x6 cm at its greatest axes. The attachment to the fascial lanes is fairly loose and much of the tumor can be shelled out, particularly in the pper portion although there are direct attachments along blood vessels into the uscle and attachments to the muscle. The lobulated tumor masses measure respecively 6, 5.5 and 4 cm. On incising into these, the two lower masses are firm, gray-hite and the upper is hemorrhagic and yellowish gray. There is an indentation on he posterolateral border of the fibula at a point 9 cm above the head of the fibula. here is no direct tumor attachment to bone. The muscle close to the proximal surgial margin and the vessels on this plane are free of visible tumor. Elsewhere in he lower part of the leg, there is extensive fibrosis and scarring involving the ubcutaneous fat with attachments to the interosseous membrane. The fibula, the omplete tumor, the proximal muscles and the area of skin scarring are removed from he remainder of the specimen and these are fixed for later processing. Sections: 1 - Skin at site of grafting. B2 - Tumor masses. B3 - Muscle in relation to tumor. 4 - Vascular bundle. B5 - Fibula.

Microscopic Description:

A and AA - Sections of muscle at proximal margin in which there is focal mild atrophy. o evidence of malignancy.

1 - Two skin sections are examined. In one there is dermal and subcutaneous fibrous reaction with no evidence of malignancy. In the other the grafted skin is hyperkeratotic with complete loss of appendages. There is neovascularity in the upper id-dermis. In the underlying subcutis there is a large tumor mass made up of oosely-arranged fibroblastic and myxomatous cells. The tumor is infiltrative.atAt ts margins, there are 1-3 mitoses/HPF. B2 - Similar tumor of variable cellularity ith fibrosarcomatous and myxosarcomatous areas. There are many blood vessels with ellular proliferations adjacent to the wall, including plasma cells. Tumor giant ells are scattered through the neoplasm. The tumor is invasive at its margins. 3 - Sections of a cellular fibrosarcoma directly invading striated muscle. B4 - ections contain a large elastic artery with medial calcification as well as two arge veins, surrounding nerves, connective tissue and smaller vessels. There is no vidence of malignancy in these sections. B5 - Section of cortical and cancellous one. There is no evidence of any bony invasion with tumor and the surrounding connective tissue and muscle also appear free of tumor.

WSP-4-77

GPO : 1976 O - 597-743

CLINICAL RECORD | **TISSUE EXAMINATION**

SPECIMEN SUBMITTED BY: Dr. Kotynek

DATE OBTAINED: 5/19/76

SPECIMEN:
A - Right chest wall tumor - Frozen Section
B - Right chest wall tumor

BRIEF CLINICAL HISTORY (*Include duration of lesion and rapidity of growth, if neoplasm*)
Right thoracotomy 1961 for histoplasmosis.

PREOPERATIVE DIAGNOSIS

OPERATIVE FINDINGS

POSTOPERATIVE DIAGNOSIS

SIGNATURE AND TITLE: J. G. KOTYNEK, M.D.

PATHOLOGICAL REPORT

NAME OF LABORATORY

ACCESSION NO(S).: VS76-937

(*Gross description, histologic examination and diagnoses*)

DIAGNOSIS: Malignant mesenchymal tumor, right chest wall (possible malignant fibrous histiocytoma). 171.1

NOTE: No cross striations are evident; there is negligible collagen production. Possible origin of tumor would include nerve sheath and fascial tissue. Material will be submitted to the AFIP for opinion.

Frozen Section: Gross: Tissue consists of a 2x1x1 cm, gray, firm nodule.

Diagnosis: Malignant tumor probably sarcoma; suggest muscle or nerve origin.

Gross Description: (Dr. Padmalatha)

A - See Frozen Section description (1 section taken).

B - Specimen consists of two pieces of tissue, the larger measuring 2.5x2x3.5 cm and having a cut surface. The tissue feels firm and on cutting, it is gray-white. The smaller piece measures 2.8x1.3x1 cm and is firm and gray. Two sections from the larger and one piece from the smaller taken.

Microscopic Description:

A and B - Sections consist of nodule with no definite capsule. It is made up of

(Continued on reverse side)

SIGNATURE OF PATHOLOGIST: J. H. TURNER, M.D., Asst Chief, Laboratory Service

DATE: 5/24/76 (OVER)

AGE	SEX	RACE	IDENTIFICATION NO.
80	M	W	

PATIENT'S IDENTIFICATION (*For typed or written entries give: Name--last, first, middle; grade; date; hospital or medical facility*)

gs

[redacted]

DOB 3/20/96

VAH, Madison, Wisconsin

Died 12/13/76

REGISTER NO. [redacted]

WARD NO. 2B

TISSUE EXAMINATION
Standard Form 515
GENERAL SERVICES ADMINISTRATION AND INTERAGENCY COMMITTEE ON MEDICAL RECORDS

spindle-shaped cells which are arranged in a bizarre pattern and few whorls seen. Nuclei are very bizarre with multinucleation and hyperchromatism. Mitoses are abundant. Few lymphocytes and slit-like spaces are present. Tumor blood vessels, thin walled and lined by non-proliferative endothelium.

ARMED FORCES INSTITUTE OF PATHOLOGY
WASHINGTON, D.C. 20306

PATIENT IDENTIFICATION	PLEASE USE AFIP ACCESSION NUMBER IN ALL CORRESPONDENCE
AFIP ACCESSION NUMBER:	1567529
[redacted] VS-000937-76 S FSSN: [redacted]	
PLEASE INFORM US OF ANY PATIENT IDENTIFICATION ERRORS	

CHIEF, LABORATORY SERVICE
VETERANS ADMINISTRATION HOSPITAL
2500 OVERLOOK TERRACE
MADISON, WISCONSIN 53705

ADDRESS REPLY TO THE DIRECTOR
ATTN: AFIP - CPJ

8 June, 1976

CONSULTATION REPORT ON CONTRIBUTOR MATERIAL

AFIP DIAGNOSIS: Malignant fibrous histiocytoma, chest wall.

The staff agrees with your diagnosis in this case. This is indicated by the cellular morphology, prominent storiform pattern, multinucleated giant cells and atypical xanthoma cells. Tumors of this type frequently recur if not widely excised and in our experience approximately thirty to forty percent developed metastases.

Follow-up information would be appreciated.

JAMES L. HANSEN, M.D.
Colonel, MC, USA
The Director

Examining and Reporting Pathologist:

F. M. ENZINGER, M.D./JLK

WSP-5-77

GPO : 1976 O - 597-743

CLINICAL RECORD | TISSUE EXAMINATION

SPECIMEN SUBMITTED BY: Dr. Manly

DATE OBTAINED: 4/30/76

SPECIMEN:
A - Left scrotal subcutaneous mass (FS)
B - Nodule near margin (FS)
C - Sebaceous cyst of back

BRIEF CLINICAL HISTORY (Include duration of lesion and rapidity of growth, if a neoplasm)
Has been present for four years.

PREOPERATIVE DIAGNOSIS
Sebaceous cyst?

OPERATIVE FINDINGS

POSTOPERATIVE DIAGNOSIS

SIGNATURE AND TITLE: R. J. MANLY, M.D.

PATHOLOGICAL REPORT

NAME OF LABORATORY

ACCESSION NO(S). VS76-819

(Gross description, histologic examination and diagnoses)

DIAGNOSIS: Granular cell myoblastomas, multiple, scrotum x2, back x1. 216, 215

Frozen Section: Gross: A - Nodular mass 1.7x1.2x1.5 cm with yellowish white cut surface which is firm (1 central section).
B - Specimen consists of a 1.5x2x1 cm, soft to firm nodule. Cut surface is yellowish white.

Diagnoses: A - Granular cell myoblastoma. (Dr. Turner)
B - Granular cell tumor extending to near the margin--suggest further removal of adjacent tissue. (Dr. Bloodworth)
(Dr. Padmalatha)

Gross Description:
A and B - See Frozen Section description (permanent sections submitted).
C - Specimen consists of a 2.5x1.5x0.5 cm, firm, well-circumscribed nodule with a little fat attached to it. The specimen is serial sectioned (1 section taken).

Microscopic Description:
A - Connective tissue nodule surrounded by fat, vessels, nerve and cremaster muscle. The nodule consists of poorly defined fibrous tissue with strands and collections of large cells with central small nuclei and prominent, slightly basophilic granules.

(Continue on reverse side)

(OVER)

SIGNATURE OF PATHOLOGIST: J. H. TURNER, M.D., Asst Chief, Laboratory Service

DATE: 5/4/76

	AGE	SEX	RACE	IDENTIFICATION NO.
gs	24	M	N	

PATIENT'S IDENTIFICATION (For typed or written entries give: Name—last, first, middle; grade; date; hospital or medical facility)

REGISTER NO. [redacted]

WARD NO. 6B

[redacted]
DOB 8/5/51
VAH, Madison, Wisconsin

TISSUE EXAMINATION
Standard Form 515
GENERAL SERVICES ADMINISTRATION AND INTERAGENCY COMMITTEE ON MEDICAL RECORDS
FPMR 101-11.606-8
OCTOBER 1975
515-107

o ctyologic evidence of malignancy. There are a few foci of lymphocytes. Excision
ppears to be incomplete.
- Similar, rather poorly-defined tumor which appears to be subcutaneous and just
eep to dermal sweat glands. The lesion extends close to surgical margins.
- Similar subcutaneous tumor which appears to be completely excised.

DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE
DEACONESS HOSPITAL
620 NORTH 19TH STREET MILWAUKEE, WISCONSIN 53233
TELEPHONE 933-6767

WSP-6-77

LAB NO. S75-2333

OPERATION DATE 7/3 19 75

ENT DRAHONOVSKY, CYNTHIA AGE 23 SEX Female

ICIAN Dr. J. Hurley ROOM 310C HOSPITAL NO. 413532-3

CAL FINDINGS:

Tumor, left upper arm

SPECIMEN: Tumor, left upper arm

PATHOLOGICAL FINDINGS:

The specimen is composed of skin together with its underlying subcutaneous tissue and skeletal muscle. It has a somewhat rectangular shape and measures 13 x 8.5 x 3 cm. It shows a well-healed scar on the surface which measures 7.8 cm. in length. There are two masses which are firm and poorly circumscribed. This is seen in the subcutaneous tissue and extends into the underlying muscle. These masses have pinkish tan cut surfaces and a somewhat lobular appearance. These nodules are connected with each other with rather dense tan-pink, somewhat indurated tissue. The masses measure 3 x 2 x 1.5 and 4 x 3 x 2 cm. The margins and base of the specimen show grossly normal tissue. From one end of resection the margin is approximately .8 cm. from the tumor. The base shows a .7 cm. of muscle and fascia that appears to be grossly normal. Sections of the bases are labelled "A". Sections of the margins are labelled "B". cer

7/3/75 - 7/5/75

Microscopic (AD): Micro sections of the nodules alluded to grossly, reveal these to consist of spindle cells that are seen to invade the subcutaneous tissue, as well as the deeper skeletal muscle bundles. The spindle cells are arranged in haphazard fashion in some areas, while in others they are seen in fascicles or bundles. The different areas vary in cellularity with some being more cellular while others a more collagenous appearance predominates. The cells have nuclei that vary from oval to short-spindled with tapered ends. The cells have fibrillar cytoplasmic extensions that merges in many areas with abundant collagenous tissue. Islands of skeletal muscle fibers are entrapped by the proliferating lesion in some areas. There are scattered capillaries and rare clusters of round cells encountered. Mitotic figures are very rare. Margins are adequate. cer

Diagnosis;

Aggressive fibromatosis involving subcutaneous tissue and skeletal muscle (8) 19-0002
(5) 03-7390

7/7/75 - 7/7/75

Yoshiro Taira, M.D.
Edwin L. Bemis, M.D.

WSP-7-77

PATHOLOGICAL REPORT

ATIENT ROSE, Cecilia Lucinda ROOM 716 BED 1 PATIENT NO. 829101

OCTOR Staves-Brillman DATE 3.30.70

GE 68 SPECIMEN NO. S-628-70

PECIMEN Tumor L ant. thigh

RE-OPERATIVE DIAGNOSIS:

OST-OPERATIVE DIAGNOSIS:

MACROSCOPIC EXAMINATION

he specimen comes in two parts one of which is a markedly irregular shaped ovoid mass f soft tissues measuring 3.0 x 2.8 x 2.0 cm. On section the specimen consists of mottled grey hemorrhagic violet and pale yellow non-descript mass of tissue which ppears to be focally necrotic. Representative sections of this mass are submitted. ccompanying this mass of tissue there is a longer mass of tissue measuring 6.0 x 6.0 1.3 cm. The majority of the specimen appears to consist of skeletal muscle but at ne point there is a rather discrete homogenous firm grey opaque mass measuring 2.5 1.6 x 1.4 cm. Representative sections of the opaque white tissue will be submitted.

MICROSCOPIC EXAMINATION

icroscopic sections through the tumor masses are remarkable in that there are two distinct but probably related histologic appearances one of which that is the discrete omogenous white nodule tissue consists of spindle shaped cells with elongate oval ounded nuclei which are markedly anaplastic and pleomorphic with marked hyperchromatism with irregular membranes, densely clumped and irregularly distributed chromatin nd brilliant large pink and often multiple nucleoli. The other pattern is far more isorganized consisting of much larger cells many of which are multinucleate all of hich are very irregular in outline. The nuclei however are quite comparable to those escribed above in the spindle shaped portion of the tumor. Associated with these arge giant cells which are multinucleate in character is a small amount of fibrillar ntracellular substance which appears to be more collagenous in nature than osteoid. ssociated with the multinucleate cells are numerous uninucleate cells which are also trikingly malignant. Distributed in large numbers throughout both forms of the tuor there are numerous mitotic figures many of which are quite atypical in configuration. The margins of the tumor extend to the borders of the resected tissues and eem to infiltrate the surrounding more normal muscular tissues in a rather diffuse nd random fashion.

PATH. REPORT

DIAGNOSIS: Giant cell sarcoma of probable fascial origin. See consulatation from Armed Forces Institute of Pathology dated 4.15.70.

JC/nms

M.D.

WSP-8-77 Dr. DJ. Stevenson
Mad. Gen'l Hosp

Department of Pathology
January 25, 1977

Dr. Robert Lipo
Family Hospital
2711 West Wells Street
Milwaukee, Wisconsin 53208

Dear Dr. Lipo:

~~In response to your request for soft tissue tumors~~, I ~~am submitting a slide from~~ A large lung tumor from a man who is 66-years-old. The first manifestation of this tumor was a subcutaneous osseous producing malignant tumor located in the tissues of the upper arm. No other tumor was present in any of his bones. ~~The metastatic lesion in the arm contained considerable more osteoid and sections of this lesion would be available from the Fort Atkinson Hospital.~~

We have some gross pictures, x-rays, etc. of this case if you are interested.

Sincerely,

Donald J. Stevenson, M.D.
Associate Pathologist

DJS:bje

Enclosure

WSP-9-77

UNIVERSITY HOSPITALS
STUDENT INFIRMARY
MARY CORNELIA BRADLEY MEMORIAL
STATE OF WISCONSIN GENERAL
WISCONSIN ORTHOPEDIC FOR CHILDREN
CANCER RESEARCH
NEUROLOGICAL AND REHABILITATION

UNIVERSITY HOSPITALS
CENTER FOR HEALTH SCIENCES
THE UNIVERSITY OF WISCONSIN
262-1021

1300 UNIVERSITY AVENUE • MADISON, WISCONSIN 53706

January 17, 1977

Robert Lipo, M.D.
Family Hospital
West Wells at North 28th Street
Milwaukee, WI 53208

Dear Bob:

This is a case that you may wish to consider for Dr. Rosai's soft tissue seminar.

If you need any more cases, please let us know.

Warmest regards . . .

Sincerely,

Enid Gilbert

Enid Gilbert, M.D.
Director, Surgical Pathology

EG:cj

WSP-9-77 Dr. Enid Gilbert. Univ of Wisc Mad. Wis

22y/o Male who noted discomfort for approx. 2yrs. A nodule was noted on exam and was resected

The University of ...

WSP. 9-77

NAME Berendt, David M. DATE OF BIRTH 11/8/55

TISSUE REPORT

SOURCE OF TISSUE Mass; Right Achilles Tendon

Nursing Unit 5 West Lab. No. 76/8397

History No. 725-376 Date 14-Oct-76

REPORT

GROSS: Three previous frozen sections have been performed and have been read and interpreted as follows; "F-1" - biopsy of mass of right Achilles tendon, sarcoma favor clear cell sarcoma NOTE: We cannot exclude synovial sarcoma, "F-2" - 7 cm. piece of tendon with a 2 cm. brownish lesion 1.5 cm. away from the proximal margin, no evidence of malignancy, "F-3" - Achilles tendon sheet, no evidence of malignancy.

The specimen consists of a 7 cm. piece of tendon with grayish, soft to firm, 2 cm. nodule which is 1.5 cm. away from one margin and 3.5 cm. away from the other margin. There is a piece of muscle attached to the tendon.

One section of the lesion and another from the lower margin is labeled "X".

A photograph of the specimen has been taken. (Dictated by Dr. Chandrashekar Padmalatha) ss

MICROSCOPIC: Sections consist of a tendon which has a tumor composed of compact nests and fascicles of spindle-shaped cells with pale-staining eosinophilic cytoplasm. Cell borders are not prominent with a centrally placed vesicular nucleus with prominent nucleoli. Cells appear uniform. Mitoses are rare. The stroma consists of thin connective tissue.

PAS stains reveal a borderline positivity. Reticulin stains the intervening trabeculae, but do not stain the individual tumor cells.

Resected margins are free of malignancy.

DIAGNOSIS: Clear cell sarcoma of the Achilles tendon.

REFERENCE: Cancer, Volume 18, No. 9, September, 1965.

David Berendt MD

STAFF PATHOLOGIST

(10-19-76) (cj)

The University of Wisconsin • UNIVERSITY HOSPITALS

WSP.9.77

NAME Berendt, David M. DATE OF BIRTH 11-8-55

SOURCE OF TISSUE Electron Microscopy of Mass of Right Achilles Tendon

TISSUE REPORT

Nursing Unit 5 West Lab. No. 76-8397

History No. 725-376 Date 14-Oct-76

REPORT

MICROSCOPIC: A portion of tissue was fixed in glutaraldehyde and further processed for electron microscopy.

Sections contain polyhedral cells which frequently abut on a basement membrane. The nuclei are irregularly spindle-shaped. Nucleoli are large and dense. The cytoplasm contains abundant polysomes. Golgi vesicles and mitochondria are present. The cells occasionally surround intercellular clefts. Intercellular attachments or pigmented granules were not observed.

The ultrastructural features of these cells are similar to those reported for clear cell sarcoma of tendon. The features are also similar to glandular component of synovial cell sarcoma and suggest a similar origin of the two tumors.

DIAGNOSIS: Clear cell sarcoma of tendon.

REFERENCE: Stout and Lattes, Tumors of the Soft Tissues, AFIP Fasicle, No. 1, page 186, 1967.

Bearman et al, Cancer 36, 977, 1975.

Diane Norback

Diane Norback, Ph.D., M.D.
Staff Pathologist

(10-22-76) (1) (cj)

S 4410-72 WSP-10-77

Specimen consists of the left lung with pericardium adherent to the medial surface.
There is a dark red/hemorrhagic area in the upper lobe firm

On the cut surface, the mass measures 7 x 6 cm, it is creamy white, necrotic and involves the medial portion of the upper lobe. The mass is extrinsic to the lung and surrounded by fibrous tissue. A small/nodule, measuring 1.4 cm. is in the thickened pleura. white
There is no communication between tumor and bronchi.

Diagnosis: Seminoma

S4410-72

CHEST: In the interval of 11 days since our previous examination there has been progression of the previously described mass in the left lung which appears not to arise from the hilum, but rather to be contained anteriorly within the anterior segment of the left upper lobe. At present it measures approximately 6 cm. in diameter and appears to be well defined.

In the absence of inflammatory signs one had to suspect the possibility of tumor with hemorrhage to account for the rapid growth,

P-10-77

TOMOGRAPHY OF LEFT LUNG: Tomograms of the left upper lung reveal to our advantage the above described mass lesion which appears to be well defined and bosselated. The patient underwent fluoroscopy of the area which revealed that a fleck of calcifications laterally and inferiorly. Pulsations were identifed .. but whether these were transmitted pulsations or intrinsic ones could not be elucidated by fluoroscopy.

The possibility that this could be a vascular mass a pulmonary angiogram has been suggested.

Trinity

SP

S 1866-74 Retroperitoneal tumor

Several small segments of tissue were submitted in the fresh state, measuring 3.5 x 3 x 2.0 cm and 3.7 x 3.0 x 2.5 cm The tissue is homogenous, myxomatous and pinkish tan to dark red with hemorrhagic areas.

The second portion consists of a large mass of tumor, which includes the spleen, kidney, omentum, and adrenal gland. The entire mass measured 23 x 15.5 x 12 cm. The tumor is creamy tan to yellow, with red hemorrhagic areas. It is very mucoid in consistency and has a myxomatous apearance.

The spleen has multiple infarcts. The kidney and adrenal were surrounded by tumor.

Diagnosis: Liposarcoma

WSP-12-77

Surgical Cases
Trinity Memorial Hospital

S 4105-75 Specimen consists of two large separate masses, one of which weighed 813 gms. and measured 36 x 33 x 4 cm. The second mass weighed 500 gm. and measures 19 x 16 x 7.5 cm. Both masses are similar. On the cut surface, the tissue is multilobulated, yellow gray to tan and mucinous. The tissue is specked with red hemorrhagic streaks. In some areas, the lobules are firm and homogenous reddish tan.

Diagnosis: Well differentiated liposarcoma

5/10/5-75

RIGHT LEG VENOGRAM:

Serial films of the right lower extremity have been obtained during injection of contrast material into one of the veins of the dorsum of the foot during the application and after the release of a tight tourniquet above the ankle.

There is complete occlusion of the deep venous system distal to the significant incompetence of the perforators. The only venous return identified is via the saphenous system. A definite filling defect is not identified but one suspects that this is the result of long standing phlebothrombosis.

Incidentally, there is a soft tissue mass of approximately 12 cm. in diameter overlying the junction of middle and distalthirds of right femur. This is not associated with osseous abnormalities or calcifications.

RIGHT FEMORAL ARTERIOGRAM:

Serial films of the right lower extremity have been obtained during manual injections of contrast material into the right common femoral artery.

Both deep and superficial femoral arteries are well identified and show no evidence of atherosclerosis or occlusions.

There is displacement of the arterial vessels at Hunter's level at the site of the above described soft tissue mass. The mass in question appears avascular and has produced outstretching of the corresponding vessels. There is no evidence of early venous return or arterial venous malformation.

VISCERAL ANGIOGRAM:

Serial films of the abdomen have been obtained during manual injections of contrast material into the superior mesenteric and celiac trunks respectively.

There is normal size and distribution of the corresponding arterial tree. Both of the superior and inferior pancreatic archaids are identified and appear normal.

The venous return is relatively well identified particularly at the splenoportal system and no indentations or areas of occlusion are identified.

The above findings referrable to the leg probably represent benign tumor of the fibous or muscular origin but malignant degeneration is not excluded. A lipoma is less likely possibility.