1125

CALIFORNIA
TUMOR TISSUE REGISTRY

STUDY CASES

JANUARY 1998

"SKIN PATHOLOGY"

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) 824-4788
FAX: (909) 478-4188
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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.

Objective:

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:

The CTTR designates this activity for up to 2 hours of continuing medical education. Participants must return their diagnoses to the CTTR as documentation of participation in this activity.

Accreditation:

The California Tumor Tissue Registry is accredited by the California Medical Association as a provider of continuing medical education.

CONTRIBUTOR: James J. McCusker, M.D.
Woodland, CA

CASE NO. 1 - JANUARY 1998

TISSUE FROM: Left forearm

ACCESSION #27906

CLINICAL ABSTRACT:

This 71-year-old retired veterinarian with fair complexion presented with a subcutaneous firm non-tender brown nodule on the left forearm. The mass had been present for approximately five months. There were some petechiae around the lesion but there were also petechiae involving both arms ("senile petechiae"). The patient thought he had traumatized the lesion area. An excision was performed.

GROSS PATHOLOGY:

The specimen consisted of a nodular piece of pale skin with attached soft tissue, and measured 3.3 x 1.8 and was up to 1.4 cm in depth.

SPECIAL STUDIES:

S-100	Positive in intraepidermal & spindle cell components
HMB-45	Intraepidermal and papillary dermal component positive; spindle cell component negative
Vimentin	Positive

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

CASE NO. 2 - JANUARY 1998

TISSUE FROM: Left hip

ACCESSION #28019

CLINICAL ABSTRACT:

A 33-year-old Black female presented with a ten-year history of an asymptomatic, 6 cm diameter, slowly growing mass in the subcutaneous tissue of the left hip. A wide excision was performed.

GROSS PATHOLOGY:

The specimen consisted of a 15.0 x 6.7 x 3.0 cm ellipse of skin. Cut surface demonstrated an ovoid soft tissue mass that was 2.5 cm in cross section diameter and approximately 3.8 cm on the long axis, which was parallel to the long axis of the ellipse.

SPECIAL STUDIES:

Muscle specific actin	Negative
S-100	Negative
CD-34	Positive

CONTRIBUTOR: James J. McCusker, M.D.
Woodland, CA

CASE NO. 3 - JANUARY 1998

TISSUE FROM: Scalp

ACCESSION #27756

CLINICAL ABSTRACT:

This 65-year-old female presented with a ten-year history of a slowly growing scalp lesion. The lesion was asymptomatic, and the patient presented for cosmetic reasons. A CT scan of the skull revealed a compression phenomenon of the superior plate of the calvarium but no evidence of invasion. The scalp lesion was excised.

GROSS PATHOLOGY:

The triangular/half-star-shaped specimen of skin measured 10.2 x 6.4 x 0.7 cm. On the surface there was a sessile, 4.1 x 3.8 x 2.0 cm, dome-shaped lesion. The cut surface revealed a nodular, slightly edematous neoplasm.

CONTRIBUTOR: Julio Ibarra, M.D.
Long Beach, CA

CASE NO. 4 - JANUARY 1998

TISSUE FROM: Scalp

ACCESSION #25663

CLINICAL ABSTRACT:

A 53-year-old female presented with a 10 year history of a scalp lesion that had grown significantly in the last two years. The skin under the mass was freely moveable. There was no palpable lymphadenopathy. The patient underwent a wide excisional biopsy.

GROSS PATHOLOGY:

A 4.8 cm round excision of skin had a 2.7 cm raised mass with a soft, friable, nodular, yellow-tan cut surface.

SPECIAL STUDIES:

High & low molecular weight keratin Positive

CONTRIBUTOR: James J. McCusker, M.D.
Woodland, CA 95695

CASE NO. 5 - JANUARY 1998

TISSUE FROM: Scalp

ACCESSION #28103

CLINICAL ABSTRACT:

A 90-year-old Caucasian male presented with a slowly growing nodule on the anterior scalp, which was excised. Two years earlier, a squamous cell carcinoma had been excised (with clear margins) in an adjacent area of the scalp. (Subscriber slides are from the most recent tumor.)

GROSS PATHOLOGY:

The specimen consisted of a nearly circular piece of tan skin, 3.5 cm in diameter and up to 1.0 cm thick. There was a central 2.5 x 2.3 cm raised, hyperkeratotic brown and tan lesion.

SPECIAL STUDIES:

Keratin	Negative	Desmin	Negative
Myoglobin	Negative	Epithelial membrane antigen	Negative
S-100	Negative	Vimentin	Positive
Actin	Positive	Lysozyme	Positive

CONTRIBUTOR: O.D. Stinson, M.D.
Burbank, CA

CASE NO. 6 - JANUARY 1998

TISSUE FROM: Right cheek

ACCESSION #28242

CLINICAL ABSTRACT:

This 87-year-old woman presented with a one-month history of a 2.0 cm diameter exophytic, smooth red nodule on the right cheek. An excisional biopsy was performed.

GROSS PATHOLOGY:

The specimen consisted of a 2.6 x 1.2 x 0.8 cm, oval, tense, gray-tan cyst that, on hemisectioning, contained solid material.

SPECIAL STUDIES:

CAM 5.2	Negative
Desmin	Negative
S-100	Negative

CONTRIBUTOR: Leonid Swidnicki, M.D.
St. Louis, MI

CASE NO. 7 - JANUARY 1998

TISSUE FROM: Right wrist

ACCESSION #18267

CLINICAL ABSTRACT:

This 61-year-old Black female presented with a nodular lesion of the right wrist, with multiple areas of ulceration. An excisional biopsy was performed.

GROSS PATHOLOGY:

The specimen measured 3.0 x 3.0 x 2.5 cm. Cut surface was homogenous gray and firm.

CONTRIBUTOR: S. P. Del Congdon, M.D.

CASE NO. 8 - JANUARY 1998

TISSUE FROM: Right axillary

ACCESSION #23662

CLINICAL ABSTRACT:

A 14-month-old Hispanic female presented with a right axillary mass. An excisional biopsy was performed.

GROSS PATHOLOGY:

Not available.

CONTRIBUTOR: J. L. Zundell, M.D.
San Francisco, CA

CASE NO. 9 - JANUARY 1998

TISSUE FROM: Left shoulder

ACCESSION #10307

CLINICAL ABSTRACT:

This 52-year-old female had a two-year history of a small firm mass on her left shoulder. An excisional biopsy was performed.

GROSS PATHOLOGY:

The specimen consisted of a 5 cm diameter nearly circular piece of skin and subcutaneous tissue cut to a depth of 3 cm. The skin surface was wrinkled and congested but appeared intact. The cut surface was firm, homogeneous pink-white, non-bulging and no evident capsule. The undersurface showed a few lobules of fat.

CONTRIBUTOR: V. Thery Ness, M.D.
San Jose, CA

CASE NO. 10 - JANUARY 1998

TISSUE FROM: Forehead

ACCESSION #17835

CLINICAL ABSTRACT:

This 8-year-old female was born with a slightly raised pigmented lesion over the left forehead. It had grown in size along with the remaining face, thus there had been no relative change in size since birth. There were no associated problems and no family history of similar lesions. The lesion was removed for cosmetic reasons.

GROSS PATHOLOGY:

The specimen consisted of a 3.7 x 1.5 cm oval fragment of pigmented skin with an irregular raised area occupying most of the tissue.

CALIFORNIA
TUMOR TISSUE REGISTRY

MINUTES

FOR

JANUARY 1998

SKIN PATHOLOGY

SUGGESTED READING (General Topics from Recent Literature):

Prostate-Specific Antigen and Lack of Specificity for Prostate Cells. Diamandis EP, Yu H. *The Lancet* 1995; 345: 1186.

Prostate-Specific Membrane Antigen in Breast Carcinoma. Uria JA, Velasco G, Santamaria I, Ferrando A, et al. *The Lancet* 1997; 349: 1601.

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INLAND (Riverside/San Bernardino) - Melanoma, desmoplastic (1); Neurotropic melanoma(1) Spitz nevus (1); Malignant melanocytic schwannoma (1).

ORANGE - Spindle cell melanoma (5).

LOS ANGELES (UCLA Fellows) - Desmoplastic melanoma.

BAKERSFIELD (Central Valley Study Group) - Malignant melanoma (desmoplastic).

SAN DIEGO (Naval Medical Center) - Desmoplastic malignant melanoma (13).

SACRAMENTO (UC Davis) - Melanoma, spindle cell (desmoplastic, neurotropic type).

LONG BEACH - Desmoplastic malignant melanoma (5).

BAY AREA - Malignant melanoma, desmoplastic or ? neurotropic type (3).

OAKLAND (Kaiser) - Desmoplastic melanoma.

SANTA ROSA - Malignant melanoma, spindle cell type (1); Spindle cell melanoma (2).

PLEASANTON/FREMONT - Desmoplastic melanoma (5); Myofibroblastoma (1); Vascular neoplasm (1).

NEVADA (Reno) - Melanoma with desmoplastic features (1); Spindle cell melanoma (1).

ILLINOIS (Chicago) - Spindle cell neoplasm.

MICHIGAN (St. Joseph Mercy Hospital): Desmoplastic melanoma (3).

NEBRASKA (Creighton University) - Desmoplastic melanoma.

WYOMING - Spindle cell melanoma.

NEW HAMPSHIRE (Manchester) - Malignant lesion, favor malignant melanoma, desmoplastic variant.

NEW JERSEY (Overlook Hospital Summit) - Desmoplastic malignant melanoma (4)

NEW YORK (Impath) - Desmoplastic malignant melanoma (4).

NEW YORK (Northport) - Desmoplastic melanoma.

MASSACHUSETTS (Berkshire Med Ctr) - Spindle cell melanoma.

CONNECTICUT (Univ CT Health Ctr) - Desmoplastic melanoma (Note: Do not have the epidermal component on our slide.)

MARYLAND (Bethesda Naval Medical Center) - Malignant melanoma, spindle cell (desmoplastic type).

PENNSYLVANIA (Good Samaritan Regional Medical Center) - Neurotropic desmoplastic malignant melanoma.

FLORIDA (Tallahassee) - Desmoplastic melanoma, level 5; Epithelioid hemangioendothelioma.

AUSTRALIA (Sydney) - Desmoplastic neurotropic malignant melanoma.

DIAGNOSIS:

DESMOPLASTIC MELANOMA, LEFT FOREARM
TY8520, M87203

FOLLOW-UP: The patient received interferon therapy for a year after the surgery and is doing well.

REFERENCES:

Skelton HG, et al. Desmoplastic Malignant Melanoma. *J Am Acad Dermatol* 1995; 32 (5 Pt 1): 717-725.

Carlson JA, et al. Desmoplastic Neurotropic Melanoma. A Clinicopathologic Analysis of 28 Cases. *Cancer* 1995; 75(2): 478-494.

Carlson JA and Egbert BM. Desmoplastic Neurotropic Malignant Melanoma, in *Malignant Melanoma and Melanocytic Neoplasms.* LeBoit PE (Editor) *Hanley and Belfus, Inc.*, Philadelphia 1994: 339-357.

Longacre TA, Egbert BM, and Rouse RV. Desmoplastic and Spindle-Cell Malignant Melanoma. An Immunohistochemical Study. *Am J Surg Pathol* 1996. 20(12): 1489-1500.

Iwamoto S, et al. Evidence that the p75 Neurotrophin Receptor Mediates Perineural Spread of Desmoplastic Melanoma. *J Am Acad Dermatol* 1996; 35(5 Pt 1): 725-731.

INLAND (Riverside/San Bernardino) - Dermatofibrosarcoma protuberans (2); Fibromatosis (1); Fibrous histiocytoma, aggressive type (1).
ORANGE - Dermatofibrosarcoma protuberans (5).
LOS ANGELES (UCLA Fellows) - Dermatofibrosarcoma protuberans.
BAKERSFIELD (Central Valley Study Group) - Dermatofibrosarcoma.
SAN DIEGO (Naval Medical Center) - Dermatofibrosarcoma protuberans (13).
SACRAMENTO (UC Davis) - Dermatofibrosarcoma protuberans.
LONG BEACH - Benign fibrohistiocytic tumor (5).
BAY AREA - Dermatofibrosarcoma protuberans (3).
OAKLAND (Kaiser) - Dermatofibrosarcoma protuberans.
SANTA ROSA - Dermatofibrosarcoma protuberans (3).
PLEASANTON/FREMONT - Dermatofibrosarcoma protuberans (7).
NEVADA (Reno) - Dermatofibrosarcoma protuberans (2).
ILLINOIS (Chicago) - Dermatofibrosarcoma protuberans.
MICHIGAN (St. Joseph Mercy Hospital) - Dermatofibrosarcoma protuberans (3).
NEBRASKA (Creighton University) - Dermatofibrosarcoma protuberans.
WYOMING - Dermatofibrosarcoma protuberans.
NEW HAMPSHIRE (Manchester) - Subepidermal nodular fibromatosis.
NEW JERSEY (Overlook Hospital Summit) - Dermatofibrosarcoma (4).
NEW YORK (Impath) - Dermatofibrosarcoma protuberans (4).
NEW YORK (Northport) - Dermatofibrosarcoma protuberans.
MASSACHUSETTS (Berkshire Med Ctr) - Dermatofibrosarcoma protuberans.
CONNECTICUT (Univ CT Health Ctr) - Dermatofibrosarcoma protuberans (8); Malignant fibrous histiocytoma (1).
MARYLAND (Bethesda Naval Medical Center) - Dermatofibrosarcoma protuberans.
PENNSYLVANIA (Good Samaritan Regional Medical Center) - Kaposi's sarcoma.
FLORIDA (Tallahassee) - Dermatofibrosarcoma protuberans.
AUSTRALIA (Sydney) - Dermatofibrosarcoma protuberans.

DIAGNOSIS:

DERMATOFIBROSARCOMA PROTUBERANS, LEFT HIP
TY1500, M88323

FOLLOW-UP: The patient was back to work after a month without complaints and wound is healing well.

REERENCES:

Pedeutour F, Coindre JM, Sozzi G, et al. Supernumerary Ring Chromosomes Containing Chromosome 17 Sequences. A Specific Feature of Dermatofibromasarcoma Protuberans. *Cancer Genet Gytogenet* 1994; 76(1): 1-9.

Ma CH, Zarbo RJ, Gown AM. Immunohistochemical Characterization of Atypical Fibroxanthoma and Dermatofibrosarcoma Protuberans. *Am J Clin Pathol* 1992; 97(4): 478-483.

Jimenez FJ, Grichnik JM, Buchanan MD, Clark RE. Immunohistochemical Margin Control Applied to Mohs Micrographic Surgical Excision of Dermatofibrosarcoma Protuberans. *J Dermato Surg Oncol* 1994; 20(10): 687-689. (Used CD-34 Antigen to Clearly Mark Extent of Tumor).

Koh CK, Ko CB, Bury HP and Wyatt EH. Dermatofibrosarcoma Protuberans. *Int J Dermatol* (US) 1995; 34(4): 256-260.

Kikuchi K, Soma Y, Fujimoto M, Kadono T, Sato S, et al. Dermatofibrosarcoma Protuberans. Increased Growth Response to Platelet-Derived Growth Factor BB in Cell Culture. *Biochem Biophys Res Commun* 1993(US); 196(1): 409-415.

INLAND (Riverside/San Bernardino) - Basal cell carcinoma (2); Eccrine cylindroma (1); Basal cell carcinoma, anaplastic "metatypical" variant (1).

ORANGE - Basal cell carcinoma (5).

LOS ANGELES (UCLA Fellows) - Cystic basal cell carcinoma.

BAKERSFIELD (Central Valley Study Group) - Nodular hidradenoma

SAN DIEGO (Naval Medical Center) - Basal cell carcinoma (13).

SACRAMENTO (UC Davis) - Cylindroma (turban tumor)—Adenoid cystic carcinoma of skin.

LONG BEACH - Basal cell carcinoma (5).

BAY AREA - Cylindroma (atypia and incompletely excised) (3).

OAKLAND (Kaiser) - Cylindroma.

SANTA ROSA - Malignant neoplasm consistent with "Meckel cell" carcinoma, r/o adnexal tumor (1); Merkel cell tumor vs basal cell carcinoma (1); Merkel cell tumor, r/o malignant adnexal neoplasm (1).

PLEASANTON/FREMONT - Basal cell carcinoma (6).

NEVADA (Reno) - Eccrine spiradenoma (2).

ILLINOIS (Chicago) - Basal cell carcinoma, adenoid type vs adenoid cystic carcinoma of eccrine glands.

MICHIGAN (St. Joseph Mercy Hospital) - Eccrine carcinoma (3).

NEBRASKA (Creighton University) - Basal cell carcinoma.

WYOMING - Large nodular trichoblastoma.

NEW HAMPSHIRE (Manchester) - Malignant skin appendage tumor, favoring adenoid cystic carcinoma.

NEW JERSEY (Overlook Hospital Summit) - Basal cell carcinoma (2); Malignant eccrine spiradenoma (1); Skin appendage carcinoma (1).

NEW YORK (Impath) - Malignant eccrine spiradenoma (4).

NEW YORK (Northport) - Basal cell carcinoma.

MASSACHUSETTS (Berkshire Med Ctr) - Malignant adnexal (probably eccrine) carcinoma.

CONNECTICUT (Univ CT Health Ctr) - Trichoepithelioma (8); Basal cell carcinoma (1).

MARYLAND (Bethesda Naval Medical Center) - Adenoid basal cell carcinoma with eccrine (sweat gland) differentiation (low grade adnexal carcinoma with features of basal cell carcinoma and eccrine differentiation).

PENNSYLVANIA (Good Samaritan Regional Medical Center) - Basaloid appendageal adenoma, mixed cylindroma/spiradenoma pattern.

FLORIDA (Tallahassee) - Nodular basal cell carcinoma.

AUSTRALIA (Sydney) - Adnexal carcinoma , probable hair follicle differentiation - ? trichoblastoma.

DIAGNOSIS:

ADENOID BASAL CELL CARCINOMA, SCALP
TY0160, M80903

REFERENCES:

Parizel PM, Dirix L, Van den Wayngaert D, et al. Deep Cerebral Invasion by Basal Cell Carcinoma of the Scalp. *Neuroradiology* (Germany) 1996; 38(6): 575-577.

Miller SJ. Biology of Basal Cell Carcinoma. *J Am Acad Dermatol* 1991; 24: 1-13.

Lowe L and Rapini RP. Newer Variants and Simulants of Basal Cell Carcinoma. *J Dermatol Surg Oncol* 1991; 17: 641-648.

INLAND (Riverside/San Bernardino) - Squamous carcinoma, poorly differentiated (1); Proliferating trichilemmal tumor (1); Pilomatrixoma (calcified epithelioma of Malherbe) (1); Pilar tumor (1).

ORANGE - Malignant follicular adnexal tumor (5).

LOS ANGELES (UCLA Fellows) - Sebaceous carcinoma.

BAKERSFIELD (Central Valley Study Group) - Matrical carcinoma.

SAN DIEGO (Naval Medical Center) - Sebaceous carcinoma (13).

SACRAMENTO (UC Davis) - Proliferating pilar cyst (majority); PJV, sebaceous carcinoma (minority).

LONG BEACH - Aggressive adnexal tumor (3); Adnexal carcinoma (2).

BAY AREA - Eccrine spiradenocarcinoma (3).

OAKLAND (Kaiser) - Sebaceous carcinoma.

SANTA ROSA - Malignant adnexal neoplasm consistent with sebaceous carcinoma (1); Sebaceous carcinoma (1); adnexal neoplasm r/o sebaceous carcinoma (1).

PLEASANTON/FREMONT - Proliferating trichilemmal cyst (7).

NEVADA (Reno) - Pilar tumor (1); Pilomatrixoma (1).

ILLINOIS (Chicago) - Sebaceous adenoma.

MICHIGAN (St. Joseph Mercy Hospital) - Sebaceous epithelioma (3).

NEBRASKA (Creighton University) - Malignant pilar tumor.

WYOMING - Sebaceous carcinoma.

NEW HAMPSHIRE (Manchester) - Skin appendage tumor with squamous features. (? Trichoepithelioma).

NEW JERSEY (Overlook Hospital Summit) - Sebaceous carcinoma (4).

NEW YORK (Impath) - Sebaceous carcinoma.

NEW YORK (Northport) - Poroid hidradenoma.

MASSACHUSETTS (Berkshire Med Ctr) - Malignant pilomatrixoma.

CONNECTICUT (Univ CT Health Ctr) - Skin, appendage tumor with sebaceous differentiation of low malignant potential.

MARYLAND (Bethesda Naval Medical Center) - Adnexal carcinoma with pilosebaceous features (sebaceous carcinoma).

PENNSYLVANIA (Good Samaritan Regional Medical Center) - Nodular hidradenoma.

FLORIDA (Tallahassee) - Sebaceous carcinoma.

AUSTRALIA (Sydney) - Sebaceous carcinoma.

DIAGNOSIS:

PROLIFERATING TRICHILEMMAL CYST, SCALP
TY0160, M33470

CONSULTATION: James H. Graham, M.D. Scripps Clinic and Research Foundation, Head of the Division of Dermatopathology. "Tricholemmoma, scalp."

REFERENCES:

Brownstein MH and Arluk DJ. Proliferating Trichilemmal Cyst. A Simulant of Squamous Cell Carcinoma. *Cancer* 1981; 48(5): 1207-1214.

McCalmont TH. A Call for Logic in the Classification of Adnexal Neoplasms. *Am J Dermatopathol* 1996; 18(2): 103-109.

Pinkus H. "Sebaceous Cysts" are Trichilemmal Cysts. *Arch Dermatol* 1969; 99: 544.

Amaral ALMP, Nascimento AG, and Goellner JR. Proliferating Pilar (Trichilemmal) Cyst. Report of Two Cases, One with Carcinomatous Transformation and One with Distant Metastases. *Arch Pathol Lab Med* 1984; 108: 808.

Wang MB, Abemayor E, Fu YS. Trichilemmal Cysts of the Head and Neck. *Am J Otolaryngol* 1992; 289-294.

INLAND (Riverside/San Bernardino) - Malignant fibrous histiocytoma and squamous carcinoma, superficial (1); Atypical fibroxanthoma (2); Actinic keratosis (1).

ORANGE - Atypical fibroxanthoma (5).

LOS ANGELES (UCLA Fellows) - Atypical fibroxanthoma/superficial malignant fibrous histiocytoma.

BAKERSFIELD (Central Valley Study Group) - Spindle cell carcinoma.

SAN DIEGO (Naval Medical Center) - Atypical fibroxanthoma (13).

SACRAMENTO (UC Davis) - Superficial malignant fibrous histiocytoma (atypical fibroxanthoma).

LONG BEACH - Malignant fibrous histiocytoma of atypical fibroxanthoma type (5).

BAY AREA - Dendritic cell tumor (3).

OAKLAND (Kaiser) - Atypical fibroxanthoma.

SANTA ROSA - Malignant mesenchymal neoplasm consistent with leiomyosarcoma (1); Leiomyosarcoma vs poorly differentiated spindle squamous cell carcinoma (1); Leiomyosarcoma (1).

PLEASANTON/FREMONT - Atypical fibroxanthoma (5); Collision tumor, SCC/AFX (2).

NEVADA (Reno) - Leiomyosarcoma (2).

MICHIGAN (St. Joseph Mercy Hospital) - Atypical fibroxanthoma (3).

NEBRASKA (Creighton University) - Inflammatory pseudotumor, benign.

WYOMING - Atypical fibroxanthoma.

NEW HAMPSHIRE (Manchester) - Malignant spindle cell tumor consistent with leiomyosarcoma.

NEW JERSEY (Overlook Hospital Summit) - Atypical fibroxanthoma (4).

NEW YORK (Impath) - Desmoplastic squamous cell carcinoma (4).

NEW YORK (Northport) - Sarcoma (favor malignant fibrous histiocytoma, leiomyosarcoma).

MASSACHUSETTS (Berkshire Med Ctr) - Atypical fibroxanthoma.

CONNECTICUT (Univ CT Health Ctr) - Atypical fibroxanthoma.

MARYLAND (Bethesda Naval Medical Center) - Atypical fibroxanthoma favored over spindle cell squamous cell carcinoma, latter not excluded by negative keratin immunostain.

PENNSYLVANIA (Good Samaritan Regional Medical Center) - Malignant fibrous histiocytoma.

FLORIDA (Tallhassee) - Spindle cell squamous carcinoma; Sarcomatoid squamous carcinoma.

AUSTRALIA (Sydney) - Dedifferentiated squamous cell carcinoma (Malignant fibrous histiocytoma-like).

DIAGNOSIS:

SUPERFICIAL MALIGNANT FIBROUS HISTIOCYTOMA, SCALP
TY0160, M88303

REFERENCES:

Mondal A and Ray CK. Clinically Malignant Scalp and Underlying Bone Tumors Diagnosed by Aspiration Cytology. A study of 121 Cases. *J Indian Med Assoc* 1992; 90: 175-178.

Shrek R. Cutaneous Carcinoma III. A Statistical Analysis with Respect to Site, Sex and Pre-Existing Scars. *Arch Pathol* 1941; 41: 434-438.

Ratzer ER and Strong EW. Squamous Cell Carcinoma of the Scalp. *Am J Surg* 1967; 114: 570.

INLAND (Riverside/San Bernardino) - Melanoma, amelanotic (1); Sarcoma, favor angiosarcoma but need full panel of immunostains (1); Atypical fibroxanthoma (1); Spindle cell squamous cell carcinoma (1).

ORANGE - Squamous cell carcinoma (3); Melanoma (1); Spindle cell lesion (1).

LOS ANGELES (UCLA Fellows) - Superficial malignant fibrous histiocytoma.

BAKERSFIELD (Central Valley Study Group) - Atypical fibroxanthoma.

SAN DIEGO (Naval Medical Center) - Malignant spindle cell neoplasm (6); Atypical fibroxanthoma (5).

SACRAMENTO (UC Davis) - Melanoma (S-100 negative), spindle cell type; Spindle cell carcinoma; Sarcoma, favor leiomyosarcoma.

LONG BEACH - Spindle-cell squamous cell carcinoma (5).

BAY AREA - Atypical fibroxanthoma (3).

OAKLAND (Kaiser) - Atypical fibroxanthoma.

SANTA ROSA - Malignant mesenchymal neoplasm consistent with malignant fibroxanthoma or malignant fibrous histiocytoma (1); Sarcoma, NOS vs malignant fibrous histiocytoma (1); Malignant fibroxantroma (1).

PLEASANTON/FREMONT - Atypical fibroxanthoma (4); Nodular melanoma (3).

NEVADA (Reno) - Atypical fibroxanthoma (superficial malignant fibrous histiocytoma) (1); Squamous carcinoma vs atypical fibroxanthoma (1).

ILLINOIS (Chicago) - Malignant fibrous histiocytoma.

MICHIGAN (St. Joseph Mercy Hospital) - Atypical fibroxanthoma (2); Malignant melanoma (1).

NEBRASKA (Creighton University) - Melanoma.

WYOMING - Metastatic malignant neoplasm, r/o renal cell carcinoma.

NEW HAMPSHIRE (Manchester) - Malignant tumor, favoring malignant melanoma.

NEW JERSEY (Overlook Hospital Summit) - Atypical fibrous histiocytoma (3); Malignant fibrous histiocytoma (1).

NEW YORK (Impath) - Atypical fibroxanthoma (4).

NEW YORK (Northport) - Fibrosarcoma.

MASSACHUSETTS (Berkshire Med Ctr) - Cystic squamous carcinoma .

CONNECTICUT (Univ CT Health Ctr) - Malignant peripheral nerve sheath tumor with rhabdoid epitheloid cells vs r/o metastatic carcinoma.

MARYLAND (Bethesda Naval Medical Center) - Malignant spindle cell neoplasm, favor atypical fibroxanthoma.

PENNSYLVANIA (Good Samaritan Regional Medical Center) - Spindle squamous cell carcinoma.

FLORIDA (Tallahassee) - Atypical fibroxanthoma.

AUSTRALIA (Sydney) - Atypical fibroxanthoma/malignant fibrous histiocytoma of skin.

DIAGNOSIS:

ATYPICAL FIBROXANTHOMA, RIGHT CHEEK
TY0300, M88311

REFERENCES:

Worrel, JT, Ansari SJ, Cockerell CJ. Atypical Fibroxanthoma. DNA Ploidy Analysis of 14 Cases with Possible Histogenic Considerations. *J Cutan* 1993; 20: 211-215.

Oshiro Y, Fukuda T, and Tsuneyoshi M. Atypical Fibroxanthoma Versus Benign and Malignant Fibrous Histiocytoma. A Comparative Study of their Proliferative Activity Using MIB-1, DNA Flow Cytometry, and p53 Immunostaining. *Cancer* 1995; 75(5): 1128-1134.

Michie BA, Reid RP and Fallowfield ME. Aneuploidy in Atypical Fibroxanthoma. DNA Content Quantification of 10 Cases by Image Analysis. *J Cutan Pathol* 1994; 21(5): 404-407.

Longacre TA, Smoller BR, and Rouse RV. Atypical Fibroxanthoma. Multiple Immunohistologic Profiles. *Am J Surg Pathol* 1993. 17(12): 1199-1209.

Schmookler BM, et al. Benign Fibrous Histiocytomas of the Skin with Potential for Local Recurrence. A Tumor to be Distinguished from Dermatofibroma. *Mod Pathol* 1990; 3: 158-163.

INLAND (Riverside/San Bernardino) - Nodular hidradenoma (1); Adnexal tumor, type uncertain?, sebaceous adenoma (1); Sweat gland carcinoma (malignant eccrine acrospiroma) (1); Clear cell or nodular hidradenoma (1).

ORANGE - Eccrine hidradenoma (5).

LOS ANGELES (UCLA Fellows) - Malignant nodular hidradenoma.

BAKERSFIELD (Central Valley Study Group) - Sebaceous adenoma.

SAN DIEGO (Naval Medical Center) - Nodular (eccrine) hidradenoma (12); Eccrine acrospiroma, proliferating tricholemmal tumor (1).

SACRAMENTO (UC Davis) - Nodular hidradenoma, clear cell type or parotid hidradenoma, clear cell subtype.

LONG BEACH - Adnexal carcinoma (5).

BAY AREA - Malignant eccrine acrospiroma (2); epithelioid or clear cell sarcoma (1).

OAKLAND (Kaiser) - Clear cell hidradenoma.

SANTA ROSA - Clear cell neoplasm, adnexal vs epidermal of uncertain malignant potential (1); Tricholemmoma (1); Clear cell neoplasm of uncertain malignant potential (1).

PLEASANTON/FREMONT - Eccrine acrospiroma (6); Malignant adnexal tumor (1).

NEVADA (Reno) - Clear cell hidradenoma (1); Nodular hidradenoma (1).

ILLINOIS (Chicago) - Eccrine poroma.

MICHIGAN (St. Joseph Mercy Hospital) - Malignant clear cell hidradenoma (3).

NEBRASKA (Creighton University) - Clear cell carcinoma, favor metastatic renal cell.

WYOMING - Clear cell sarcoma of tendon sheath.

NEW HAMPSHIRE (Manchester) - Sebaceous cell carcinoma.

NEW JERSEY (Overlook Hospital Summit) - Clear cell hidradenoma (2); Clear cell acanthoma (1); Nodular hidradenoma (1).

NEW YORK (Impath) - Nodular hidradenoma (4).

NEW YORK (Northport) - Eccrine poroma.

MASSACHUSETTS (Berkshire Med Ctr) - Clear cell hidradenoma.

CONNECTICUT (Univ CT Health Ctr) - Hidradenoma, clear cell variant.

MARYLAND (Bethesda Naval Medical Center) - Malignant eccrine acrospiroma.

PENNSYLVANIA (Good Samaritan Regional Medical Center) - Clear cell carcinoma.

FLORIDA (Tallahassee) - Malignant poroma; hidradenocarcinoma.

AUSTRALIA (Sydney) - Clear cell nodular hidradenoma.

DIAGNOSIS:

NODULAR HIDRADENOMA, WRIST
TY8600, M84000

REFERENCES:

Biernat W and Kordek R. Phenotypic Heterogenity of Nodular Hidradenoma. Immunochemical Analysis with Emphasis on Cytokeratin Expression. *Am J of Dermatol* 1996; 18(6): 592-596.

Keasbey LE and Hadley GC. Clear Cell Hidradenoma. Report of Three Cases with Widespread Metastases. *Cancer* 1954; 7: 934-952.

Hernandez-Perez E and Cestoni-Parducci R. Nodular Hidradenoma and Hidradenocarcinoma. A 10 Year Review. *J Am Acad Dermatol* 1985; 12: 15-20.

INLAND (Riverside/San Bernardino) - Infantile myofibromatosis (1); Fibrous hamartoma of infancy (2); Neurofibroma (1).
ORANGE - Fibrous hamartoma of infancy (5).
LOS ANGELES (UCLA) - Fibrous hamartoma of infancy.
BAKERSFIELD (Central Valley Study Group) - Fibrous hamartoma.
SAN DIEGO (Naval Medical Center) - Fibrous hamartoma of infancy (13).
SACRAMENTO (UC Davis) - Fibrous hamartoma of infancy.
LONG BEACH - Fibrous hamartoma of infancy (5).
BAY AREA - Fibrous hamartoma of infancy (3).
OAKLAND (Kaiser) - Fibrous hamartoma of infancy.
SANTA ROSA - Infantile fibrous hamartoma (3).
PLEASANTON/FREMONT - Fibrous hamartoma of infancy (7).
NEVADA (Reno) - Fibrous hamartoma (2).
ILLINOIS (Chicago) - Triton tumor.
MICHIGAN (St. Joseph Mercy Hospital) - Fibrous hamartoma of infancy (3).
NEBRASKA (Creighton University) - Fibrous hamartoma of infancy.
WYOMING - Fibrous hamartoma of infancy.
NEW HAMPSHIRE (Manchester) - Panniculitis.
NEW JERSEY (Overlook Hospital Summit) - Fibrous hamartoma of infancy (4).
NEW YORK (Impath) - Fibrous hamartoma of infancy.
NEW YORK (Northport) - Fibrous hamartoma of infancy.
MASSACHUSETTS (Berkshire Med Ctr) - Fibrous hamartoma of infancy.
CONNECTICUT (Univ CT Health Ctr) - Fibrous hamartoma of infancy.
MARYLAND (Bethesda Naval Medical Center) - Fibrous hamartoma of infancy.
PENNSYLVANIA (Good Samaritan Regional Medical Center) - Fibrous hamartoma of infancy.
FLORIDA (Tallahassee) - Infantile fibromatosis; Congenital fibrous hamartoma of infancy.
AUSTRALIA (Sydney) - Fibrous hamartoma of infancy.

DIAGNOSIS:

FIBROUS HAMARTOMA OF INFANCY, AXILLA
TY8100, M75570

REFERENCES:

Groisman G and Lichtig C. Fibrous Hamartoma of Infancy. An Immunohistochemistry and Ultrastructural Study. *Hum Pathol* 1991; 22: 914-918.
Aberer E, Mainitz M, Entacher U, et al. Fibrous Hamartoma of Infancy. Infantile Subcutaneous Myofibroblastoma. *Dermatologica* 1988; 176: 46.
Enzinger FM. Fibrous Hamartoma of Infancy. *Cancer* 1965; 18: 241.
Fletcher CD, Powell G, van Noorden S, et al. Fibrous Hamartoma of Infancy. A Histochemical and Immunohistochemical Study. *Histopathology* 1988; 12: 65.

INLAND (Riverside/San Bernardino) - Granular cell tumor (3); Granular cell myoblastoma (1).
ORANGE - Granular cell tumor (5).
LOS ANGELES (UCLA Fellows) - Granular cell tumor.
BAKERSFIELD (Central Valley Study Group) - Granular cell tumor.
SAN DIEGO (Naval Medical Center) - Granular cell tumor (13).
SACRAMENTO (UC Davis) - Granular cell tumor.
LONG BEACH - Granular cell tumor (5).
BAY AREA - Granular cell tumor (3).
OAKLAND (Kaiser) - Granular cell tumor.
SANTA ROSA - Granular cell tumor.(3).
PLEASANTON/FREMONT - Granular cell tumor (7).
NEVADA (Reno) - Granular cell tumor (2).
ILLINOIS (Chicago) - Granular cell tumor.
MICHIGAN (St. Joseph Mercy Hospital) - Granular cell tumor (3).
NEBRASKA (Creighton University) - Granular cell tumor.
WYOMING - Granular cell tumor.
NEW HAMPSHIRE (Manchester) - Granular cell tumor.
NEW JERSEY (Overlook Hospital Summit) - Granular cell tumor (4).
NEW YORK (Impath) - Granular cell tumor (4).
NEW YORK (Northport) - Granular cell tumor.
MASSACHUSETTS (Berkshire Med Ctr) - Granular cell tumor.
CONNECTICUT (Univ CT Health Ctr) - Granular cell tumor.
MARYLAND (Bethesda Naval Medical Center) - Granular cell tumor.
PENNSYLVANIA (Good Samaritan Regional Medical Center) - Granular cell tumor.
FLORIDA (Tallhassee) - Granular cell tumor.
AUSTRALIA (Sydney) - Granular cell tumor.

DIAGNOSIS:

GRANULAR CELL TUMOR, SHOULDER
TY1220, M95800

REFERENCES:

Filie AC, Lage JM, Azumi N. Immunoreactivity of S-100 Protein, Alpha 1 Antitrypsin and CD-68 in Adults and Congenital Granular Cell Tumors. *Mod Pathol* 1996; 9: 888-892.

Nikkels AF, Arrese EJ, Pierard-Franchimont C, Pierard GE. CD68 and Factor XIIIa Expressions in Granular-Cell Tumor of the Skin. *Dermpathol* 1993; 186: 106-108.

Kurtin PJ and Bonin DM. Immunohistochemical Demonstration of the Lysosome-Associated Glycoprotein CD68 (KP-1) in Granular Cell Tumors and Schwannomas. *Hum Pathol* 1994 (25): 1172-1178.

Finkel G and Lane B. Granular Cell Variant of Neurofibromatosis. Ultrastructure of Benign and Malignant Tumors. *Hum Pathol* 1982; 13: 959-963.

Stefansson K and Wollman RL. S-100 Protein in Granular Cell Tumors (Granular Cell Myoblastomas). *Cancer* 1982; 49: 1834-1838.

Mentzel T, Wadden C, Fletcher CDM. Granular Cell Change in Smooth Muscle Tumours of Skin and Soft Tissue. *Histopathol* 1994; 24: 223-231.

INLAND (Riverside/San Bernardino) - Nevus sebaceous.(3); Nevus sebaceous of Jadassohn (1).
ORANGE - Nevus sebaceous (5).
LOS ANGELES (UCLA Fellows) - Nevus sebaceous.
BAKERSFIELD (Central Valley Study Group) - Sebaceous hyperplasia.
SAN DIEGO (Naval Medical Center) - Nevus sebaceous (13).
SACRAMENTO (UC Davis) - Nevus sebaceous.
LONG BEACH - Nevus sebaceous (5).
BAY AREA - Nevus sebaceous (3).
OAKLAND (Kaiser) - Nevus sebaceous.
SANTA ROSA - Organoid nevus of Jadassohn (2); Nevus sebaceous of Jadassohn (1).
PLEASANTON/FREMONT - Nevus sebaceous (Jadassohn).
NEVADA (Reno) - Nevus sebaceous (2).
ILLINOIS (Chicago) - Nevus sebaceous.
MICHIGAN (St. Joseph Mercy Hospital) - Nevus sebaceous (3).
NEBRASKA (Creighton University) - Nevus sebaceous.
WYOMING - Nevus sebaceous of Jadassohn.
NEW HAMPSHIRE (Manchester) - Nevus sebaceous.
NEW JERSEY (Overlook Hospital Summit) - Nevus sebaceous (4).
NEW YORK (Impath) - Nevus sebaceous (4).
NEW YORK (Northport) - Nevus sebaceous of Jadassohn.
MASSACHUSETTS (Berkshire Med Ctr) - Nevus sebaceous.
CONNECTICUT (Univ CT Health Ctr) - Nevus sebaceous.
MARYLAND (Bethesda Naval Medical Center) - Nevus sebaceous.
PENNSYLVANIA (Good Samaritan Regional Medical Center) - Nevus sebaceous.
FLORIDA (Tallahassee) - Nevus sebaceous of Jadassohn.
AUSTRALIA (Sydney) - Organoid nevus/nevus sebaceous of Jadassohn.

DIAGNOSIS:

NEVUS SEBACEOUS, FOREHEAD
TY0110, M75750

REFERENCES:

Mehregan AH and Pinkus H. Life History of Organoid Nevi. Special Reference to Nevi Sebaceous of Jadassohn. *Arch Dermatol* 1965; 91: 574.

Wilson-Jones E and Heyl T. Nevus Sebaceous. Report of 140 Cases with Special Regard to the Development of Secondary Malignant Tumors. *Br J Dermatol* 1970; 82: 99.

Rulon DB and Helwig EB. Multiple Sebaceous Neoplasms of the Skin. An Association with Visceral Carcinomas Especially of the Colon. *Am J Clin Pathol* 1973; 60: 745.