



CALIFORNIA
TUMOR TISSUE REGISTRY

“SURGICAL NEUROPATHOLOGY”

Minutes – Subscription A

September, 2002



SUGGESTED READING (General Topics from Recent Literature):

- High Diagnostic Accuracy of Cytologic Smears of Central Nervous System Tumors. A 15-Year Experience Based on 4,172 Patients. *Acta Cytol* 2002; 46:667-674.
- Gastric Stromal Tumors. A Clinicopathologic Study of 77 Cases with Correlation of Features with Nonaggressive and Aggressive Clinical Behaviors. Trupiano JK, Stewart RE, et al. *Am J Surg Pathol* 2002; 26:705-714.
- New WHO Histologic Classification Predicts Prognosis of Thymic Epithelial Tumors. A Clinicopathologic Study of 200 Thymoma Cases from China. Chen G, Marx A, et al. *Cancer* 2002; 95:420-429.
- Clonality Analysis in Synchronous or Metachronous Tumors of the Female Genital Tract. Matias-Guiu X, Lagarda H, Catusas E, et al. *Int J Gynecol Pathol* 2002; 21(3):205-211.
- Dismantling the Germinal Center. Comparing the Processes of Transformation, Regression, and Fragmentation of the Lymphoid Follicle. Jones D. *Advan in Anat Pathol* 2002; 9(2):129-138.

California Tumor Tissue Registry
c/o: Department of Pathology and Human Anatomy
Loma Linda University School of Medicine
11021 Campus Avenue, AH 335
Loma Linda, California 92350
(909) 558-4788
FAX: (909) 558-0188
E-mail: cttr@linkline.com
Web site & Case of the Month: www.cttr.org

FILE DIAGNOSES

CTTR Subscription A

September 20002

Case 1:

Clear cell ependymoma, left temporal lobe
T-X2500, M-93913

Case 2:

Atypical meningioma
T-X2000, M-95300

Case 3:

Hemangioblastoma, cerebellum
T-X6000, M-91611

Case 4:

Craniopharyngioma
T-X2000, M-93501

Case 5:

Chordoma, extra-dural, in region of T7
T-X7410, M-93703

Case 6:

Oligodendroglioma, right cerebrum
T-X2000, M-94503

Case 7:

Schwannoma with degenerative changes, cheek
T-Y0300, M-95600

Case 8:

Gemistocytic astrocytoma, right parietal cerebrum
T-X2000, M-94113

Case 9:

Medulloblastoma, floor of 4th ventricle
T-32400, M-94703

Case 10:

Grade 4 fibrillary astrocytoma (“glioblastoma”) with epithelial metaplasia, right temporal lobe
T-X2500, M-94003

Bakersfield - Choroid plexus papilloma
Baldwin Park (Kaiser Permanente) - Astroblastoma vs. clear cell ependymoma (1); Ependymoma (2)
Bay Area - Oligodendroglioma (3); Hemangiopericytoma (1)
Daly City (Seton Medical Center) - Dysembryonic neuroectodermal tumor
Fontana (Kaiser Permanente) - Anaplastic ependymoma
Hayward/Fremont - Grade III, oligodendroglioma
Loma Linda (Loma Linda University Residents) - Anaplastic oligodendroglioma, grade III
Long Beach - Oligodendroglioma (7)
Monterey (Community Hospital of Monterey Peninsula) - Oligodendroglioma
Moreno Valley - Ependymoma, rule out meningioma and astroblastoma
Mountain Area - Neurocytoma (2); Central neurocytoma (1); Extraventricular neurocytoma (1)
Mountain View (El Camino Pathology Group) - Ependymoma
Oakland (Kaiser Permanente) - Ependymoma (3)
Orange (Orange County Medical Group) - Ependymoma
Orange (UCI Medical Center Residents) - Oligodendroglioma, brain
San Diego (Naval Medical Center) - Ependymoma, clear cell type
San Francisco (UCSF Medical Center) - Anaplastic ependymoma
Santa Barbara (Santa Barbara Cottage Hospital) - Low grade oligodendroglioma
Santa Rosa (Santa Rosa Memorial Hospital) - Malignant ependymoma (2); Ependymoma (1)
Ventura (Unilab) - Oligodendroglioma (2); Ependymoma (1)
Alaska (Alaska Native Medical Center) - Meningioma (papillary) (1); Oligodendroglioma (1)
Arizona (Phoenix Memorial Hospital) - Oligodendroglioma
Florida (Munroe Regional Medical Center) - Oligodendroglioma
Florida (Pathology Associates) - Oligodendroglioma
Florida (Winter Haven Hospital) - Ependymoma
Indiana (Fort Wayne) - Astroblastoma, left temporal lobe
Louisiana (Louisiana State University Hospital) - Oligodendroglioma (ependymoma)
Maryland (Johns Hopkins Hospital Residents) - Ependymoma (1); Clear cell ependymoma (1)
Maryland (National Naval Medical Center) - High grade oligodendrogliomas (5); astroblastoma (2); High grade glioma (1)
Massachusetts (Brigham and Women's Hospital) - Clear cell ependymoma
Massachusetts (New England Medical Center Residents) - Oligodendroglioma
Michigan (Oakwood Hospital) - Dysembryoplastic neuroepithelial tumor
Missouri (Truman Medical Center) - Oligodendroglioma
Nebraska (Creighton University School of Medicine Residents) - Oligodendroglioma, favor anaplastic
Nebraska (University of Nebraska Pathology Residents) - Clear cell ependymoma
New Jersey (Overlook Hospital) - Pilocytic astrocytoma, recurrent (1); Mixed oligodendroglioma, astrocytoma (2)
New York (Cornell Pathology Residents) - Clear cell ependymoma
New York (Impath, Inc) - Neurocytoma (pending reactive synapto)
New York (Nassau University Medical Center) - Oligoastrocytoma, brain
New York (Stony Brook University Hospital Residents) - Anaplastic ependymoma
New York (Westchester Medical Center) - Ependymoma
North Carolina (Wake Forest Residents) - Ependymoma, clear cell type
Pennsylvania (Allegheny General Hospital) - Oligodendroglioma, grade II
Pennsylvania (Conemaugh Memorial Hospital) - Clear cell ependymoma/oligodendroglioma
Puerto Rico (University of Puerto Rico) - Clear cell ependymoma
Texas (ProPath Services) - Oligodendroglioma (1); Oligodendroglioma, malignant (1)
Texas (Scott and White Memorial Hospital) - Oligodendroglioma
Washington (University of Washington) - Clear cell ependymoma vs. anaplastic oligodendroglioma
West Virginia (Greenbrier Valley Medical Center) - Cerebral neuroblastoma
Wisconsin (Meriter Health Services) - Anaplastic ependymoma, rule out astroblastoma
Australia (North Queensland Pathology) - Ependymoma

Australia (Royal Prince Alfred Hospital) - Ependymoma, clear cell type
Canada (Foothills Hospital) - Oligodendroglioma
Hong Kong (Hong Kong Baptist Hospital) - Ependymoma
Ireland (St. James Hospital) - Oligodendroglioma
Japan (Shimada City Hospital) - Astroblastoma
Japan (Yamanashi Medical University) - Anaplastic oligodendroglioma (1); Anaplastic ependymoma (1); Central neurocytoma (1); Medulloblastoma (1)

Case 1 - Diagnosis:

Clear cell ependymoma, left temporal lobe
 T-X2500, M-93913

Case 1 – References:

Fobes EC, Jr. and Earl KM. Ependymomas. Clinical and Pathological Aspects. *J Neurosurg* 1969; 30(5):585-594.
 Maruyama R, Koga K, Nakahara T, et al. Cerebral-Myxopapillary Ependymoma. *Hum Pathol* 1992; 23(8):960-962.
 Nagashima T, Hoshino T, et al. The Proliferative Potential of Human Ependymomas Measured by In-situ Bromodeoxyuridine Labeling. *Cancer* 1988; 61(12): 2433-2438.
 Min Kw and Scheithauer BW. Clear Cell Ependymoma. A Mimic of Oligodendroglioma. Clinicopathologic and Ultrastructural Considerations. *Am J Surg Pathol* 1997; 21(7): 21(7):820-826.

Case No. 2, Accession No. 29357

September 2002

Bakersfield - Meningioma
Baldwin Park (Kaiser Permanente) - Atypical meningioma (1); Fibrous meningioma (1); Meningioma (1)
Bay Area - Atypical meningioma (4)
Daly City (Seton Medical Center) - Metastatic renal cell carcinoma
Fontana (Kaiser Permanente) - Atypical meningioma
Hayward/Fremont - Malignant meningioma
Loma Linda (Loma Linda University Residents) - Atypical meningioma
Long Beach - Meningioma (7)
Monterey (Community Hospital of Monterey Peninsula) - Atypical meningioma vs. astrocytoma
Moreno Valley - Atypical meningioma
Mountain Area - Meningioma (3); Meningioma (hemangioblastic variant) (1)
Mountain View (El Camino Pathology Group) - Anaplastic meningioma
Oakland (Kaiser Permanente) - Meningioma (3)
Orange (Orange County Medical Group) - Meningioma, atypical
Orange (UCI Medical Center Residents) - Meningioma, brain
San Diego (Naval Medical Center) - Atypical meningioma
San Francisco (UCSF Medical Center) - Atypical meningioma
Santa Barbara (Santa Barbara Cottage Hospital) - Anaplastic meningioma
Santa Rosa (Santa Rosa Memorial Hospital) - Atypical meningioma (3)
Ventura (Unilab) - Meningioma (3)
Alaska (Alaska Native Medical Center) - Meningioma (atypical) (1); Meningioma (1)
Arizona (Phoenix Memorial Hospital) - Anaplastic meningioma
Florida (Munroe Regional Medical Center) - Anaplastic meningioma
Florida (Pathology Associates) - Meningioma
Florida (Winter Haven Hospital) - Atypical meningioma
Indiana (Fort Wayne) - Recurrent anaplastic meningioma
Louisiana (Louisiana State University Hospital) - Secretory vs. rhabdoid meningioma
Maryland (Johns Hopkins Hospital Residents) - Atypical meningioma (WHO, grade II) (1); Favor malignant over atypical meningioma (1)
Maryland (National Naval Medical Center) - Meningioma, atypical (10)
Massachusetts (Brigham and Women's Hospital) - Atypical meningioma

Massachusetts (New England Medical Center Residents) - Secretory meningioma
Michigan (Oakwood Hospital) - Atypical meningioma
Missouri (Truman Medical Center) - Meningioma
Nebraska (Creighton University School of Medicine Residents) - Meningioma (meningiotheliomatous)
Nebraska (University of Nebraska Pathology Residents) - Meningioma, WHO, grade II
New Jersey (Overlook Hospital) - Atypical meningioma (2); Malignant meningioma (1)
New York (Cornell Pathology Residents) - Meningioma
New York (Impath, Inc) - Meningioma (? secretory)
New York (Nassau University Medical Center) - Atypical meningioma, brain
New York (Stony Brook University Hospital Residents) - Atypical meningioma
New York (Westchester Medical Center) - Atypical meningioma
North Carolina (Wake Forest Residents) - Atypical meningioma
Pennsylvania (Allegheny General Hospital) - Atypical meningioma
Pennsylvania (Conemaugh Memorial Hospital) - Atypical meningioma
Puerto Rico (University of Puerto Rico) - Anaplastic meningioma
Texas (Propath Services) - Meningioma (1); Aggressive meningioma (1)
Texas (Scott and White Memorial Hospital) - Meningioma
Washington (University of Washington) - Malignant meningioma vs. anaplastic astrocytoma (a mixed glioma)
West Virginia (Greenbrier Valley Medical Center) - Cerebral infarct
Wisconsin (Meriter Health Services) - Atypical meningioma, meningiotheliomatous variant
Australia (North Queensland Pathology) - Rhabdoid meningioma, high grade 3
Australia (Royal Prince Alfred Hospital) - Atypical meningioma (WHO II)
Canada (Foothills Hospital) - Atypical meningioma
Hong Kong (Hong Kong Baptist Hospital) - Atypical meningioma
Ireland (St. James Hospital) - Meningioma, transitional
Japan (Shimada City Hospital) - Atypical meningioma
Japan (Yamanashi Medical University) - Malignant meningioma (1); Atypical meningioma (2); Ependymoma (1)

Case 2 - Diagnosis:

Atypical meningioma
 T-X2000, M-95300

Consultation: Bernd W. Scheithauer, M.D., Mayo Clinic, Rochester, MI. "Atypical meningioma".

Case 2 - References:

Weisberg S, Ashkenazi E, Israel Z, et al. Anaplastic and Atypical Meningiomas Express High Levels of Fas and Undergo Apoptosis in Response to Fas Ligation. *Am J Pathol* 2001; 159(4):1193-1197.
 Amatya VJ, Takeshima Y, Sugiyama K, et al. Immunohistochemical Study of Ki-67 (MIB1), p53 Protein, p21WAF1, and p27KIP1 Expression in Benign, Atypical and Anaplastic Meningiomas. *Hum Pathol* 2001; 32(9):970-975.
 Palma L, Celli P, Franco C, et al. Long-Term Prognosis for Atypical and Malignant Meningiomas. A Study of 71 Surgical Cases. *J Neurosurg* 1997; 86(5):793-800.
 Perry A, Stafford SL, Scheithauer BW, et al. Meningioma Grading. An Analysis of Histologic Parameters. *Am J Surg Pathol* 1997; 21(12):1455-1465.

Case No. 3, Accession No. 24070

September 2002

Bakersfield - Hemangioblastoma
Baldwin Park (Kaiser Permanente) - Hemangioblastoma (3)
Bay Area - Cerebellar hemangioblastoma (3); Epithelioid hemangioendothelioma (1)
Daly City (Seton Medical Center) - Hemangioblastoma
Fontana (Kaiser Permanente) - Hemangioblastoma
Hayward/Fremont - Hemangioblastoma

Loma Linda (Loma Linda University Residents) - Cerebellar hemangioblastoma
Long Beach - Hemangioblastoma (7)
Monterey (Community Hospital of Monterey Peninsula) - Hemangioblastoma
Moreno Valley - Hemangioblastoma
Mountain Area - Hemangioblastoma (3); Cerebellar hemangioblastoma (1)
Mountain View (El Camino Pathology Group) - Hemangioblastoma
Oakland (Kaiser Permanente) - Hemangioblastoma (3)
Orange (Orange County Medical Group) - Hemangioblastoma
Orange (UCI Medical Center Residents) - Hemangioblastoma, cerebellum
San Diego (Naval Medical Center) - Capillary, hemangioblastoma
San Francisco (UCSF Medical Center) - Capillary hemangioblastoma
Santa Barbara (Santa Barbara Cottage Hospital) - Metastatic renal cell carcinoma
Santa Rosa (Santa Rosa Memorial Hospital) - Hemangioblastoma (2); Cerebellar hemangioblastoma (1)
Ventura (Unilab) - Hemangioblastoma (3)
Alaska (Alaska Native Medical Center) - Hemangioblastoma (2)
Arizona (Phoenix Memorial Hospital) - Hemangioblastoma
Florida (Munroe Regional Medical Center) - Hemangioblastoma
Florida (Pathology Associates) - Hemangioblastoma
Florida (Winter Haven Hospital) - Hemangioblastoma
Indiana (Fort Wayne) - Hemangioblastoma
Louisiana (Louisiana State University Hospital) - Hemangioblastoma
Maryland (Johns Hopkins Hospital Residents) - Cerebellar hemangioblastoma (1); Hemangioblastoma (1)
Maryland (National Naval Medical Center) - Hemangioblastoma (10)
Massachusetts (Brigham and Women's Hospital) - Capillary hemangioblastoma
Massachusetts (New England Medical Center Residents) - Capillary hemangioendothelioma
Michigan (Oakwood Hospital) - Hemangioblastoma
Missouri (Truman Medical Center) - Hemangioblastoma
Nebraska (Creighton University School of Medicine Residents) - Hemangioblastoma
Nebraska (University of Nebraska Pathology Residents) - Hemangioblastoma
New Jersey (Overlook Hospital) - Hemangioblastoma (3)
New York (Cornell Pathology Residents) - Hemangioblastoma
New York (Impath, Inc) - Capillary hemangioblastoma
New York (Nassau University Medical Center) - Hemangioblastoma, cerebellum
New York (Stony Brook University Hospital Residents) - Capillary hemangioblastoma
New York (Westchester Medical Center) - Capillary hemangioblastoma
North Carolina (Wake Forest Residents) - Hemangioblastoma
Pennsylvania (Allegheny General Hospital) - Hemangioblastoma
Pennsylvania (Conemaugh Memorial Hospital) - Hemangioblastoma
Puerto Rico (University of Puerto Rico) - Hemangioblastoma
Texas (ProPath Services) - Hemangioblastoma (2)
Texas (Scott and White Memorial Hospital) - Hemangioblastoma
Washington (University of Washington) - Hemangioblastoma vs. clear cell renal carcinoma
West Virginia (Greenbrier Valley Medical Center) - Hemangioblastoma
Wisconsin (Meriter Health Services) - Hemangioblastoma
Australia (North Queensland Pathology) - Hemangioblastoma
Australia (Royal Prince Alfred Hospital) - Capillary hemangioblastoma
Canada (Foothills Hospital) - Hemangioblastoma
Hong Kong (Hong Kong Baptist Hospital) - Hemangioblastoma
Ireland (St. James Hospital) - Hemangioblastoma
Japan (Shimada City Hospital) - Hemangioblastoma
Japan (Yamanashi Medical University) - Hemangioblastoma (4)

Case 3 - Diagnosis:

Hemangioblastoma, cerebellum
T-X6000, M-91611

Case 3 - References:

Commins DL and Hinton DR. Cytologic Features of Hemangioblastoma. Comparison with Meningioma, Anaplastic Astrocytoma and Renal Cell Carcinoma. *Acta Cytol* 1998; 42(5):1104-1110.
Brown DF, Dababo MA, Hladik CL, et al. Hormone Receptor Immunoreactivity in Hemangioblastomas and Clear Cell Renal Cell Carcinomas. *Mod Pathol* 1998; 11(1):55-59.
Tse JY, Wong JH, Lo KW, et al. Molecular Genetic Analysis of the von Hippel-Lindau Disease Tumor Suppressor Gene in Familial and Sporadic Cerebellar Hemangioblastomas. *Am J Clin Pathol* 1997; 107(4):459-466.

Case No. 4, Accession No. 18923

September 2002

Bakersfield - Craniopharyngioma
Baldwin Park (Kaiser Permanente) - Adamantinomatous craniopharyngeal (1); Craniopharyngeal (2)
Bay Area - Craniopharyngioma (4)
Daly City (Seton Medical Center) - Craniopharyngioma
Fontana (Kaiser Permanente) - Craniopharyngioma
Hayward/Fremont - Craniopharyngioma
Loma Linda (Loma Linda University Residents) - Ameloblastic craniopharyngioma
Long Beach - Craniopharyngioma, adamantinomatous type (7)
Monterey (Community Hospital of Monterey Peninsula) - Craniopharyngioma, adamantinomatous type
Moreno Valley - Adamantinomatous craniopharyngioma
Mountain Area - Craniopharyngioma (4)
Mountain View (El Camino Pathology Group) - Craniopharyngioma
Oakland (Kaiser Permanente) - Craniopharyngioma (3)
Orange (Orange County Medical Group) - Craniopharyngioma
Orange (UCI Medical Center Residents) - Craniopharyngioma, base of brain
San Diego (Naval Medical Center) - Adamantinomatous craniopharyngioma
San Francisco (UCSF Medical Center) - Adamantinomatous craniopharyngioma
Santa Barbara (Santa Barbara Cottage Hospital) - Craniopharyngioma
Santa Rosa (Santa Rosa Memorial Hospital) - Craniopharyngioma (3)
Ventura (Unilab) - Craniopharyngioma (3)
Alaska (Alaska Native Medical Center) - Craniopharyngioma (adamantinomatous) (1); Craniopharyngioma (1)
Arizona (Phoenix Memorial Hospital) - Craniopharyngioma, adamantinomatous type
Florida (Munroe Regional Medical Center) - Craniopharyngioma
Florida (Pathology Associates) - Craniopharyngioma
Florida (Winter Haven Hospital) - Craniopharyngioma
Indiana (Fort Wayne) - Craniopharyngioma
Louisiana (Louisiana State University Hospital) - Craniopharyngioma
Maryland (Johns Hopkins Hospital Residents) - Adamantinomatous craniopharyngioma with ossification of wet keratin (1); Adamantinomatous craniopharyngioma (1)
Maryland (National Naval Medical Center) - Craniopharyngioma (10)
Massachusetts (Brigham and Women's Hospital) - Adamantinomatous craniopharyngioma
Massachusetts (New England Medical Center Residents) - Craniopharyngioma
Michigan (Oakwood Hospital) - Craniopharyngioma
Missouri (Truman Medical Center) - Craniopharyngioma
Nebraska (Creighton University School of Medicine Residents) - Craniopharyngioma
Nebraska (University of Nebraska Pathology Residents) - Craniopharyngioma, adamantinomatous
New Jersey (Overlook Hospital) - Craniopharyngioma (3)
New York (Cornell Pathology Residents) - Adamantinomatous craniopharyngioma

New York (Impath, Inc) - Craniopharyngioma (adamantinomatous)
New York (Nassau University Medical Center) - Craniopharyngioma, base of brain
New York (Stony Brook University Hospital Residents) - Craniopharyngioma
New York (Westchester Medical Center) - Adamantinomatous craniopharyngioma
North Carolina (Wake Forest Residents) - Craniopharyngioma
Pennsylvania (Allegheny General Hospital) - Adamantinomatous (craniopharyngioma)
Pennsylvania (Conemaugh Memorial Hospital) - Craniopharyngioma
Puerto Rico (University of Puerto Rico) - Craniopharyngioma
Texas (ProPath Services) - Craniopharyngioma (2)
Texas (Scott and White Memorial Hospital) - Craniopharyngioma
Washington (University of Washington) - Craniopharyngioma
West Virginia (Greenbrier Valley Medical Center) - Adamantinomatous craniopharyngioma
Wisconsin (Meriter Health Services) - Craniopharyngioma
Australia (North Queensland Pathology) - Craniopharyngioma
Australia (Royal Prince Alfred Hospital) - Craniopharyngioma
Canada (Foothills Hospital) - Craniopharyngioma, papillary
Hong Kong (Hong Kong Baptist Hospital) - Craniopharyngioma
Ireland (St. James Hospital) - Craniopharyngioma
Japan (Shimada City Hospital) - Adamantinomatous craniopharyngioma
Japan (Yamanashi Medical University) - Craniopharyngioma (4)

Case 4 - Diagnosis:

Craniopharyngioma
 T-X2000, M-93501

Case 4 - References:

Ito M, Jamshidi J, and Yamanaka K. Does Craniopharyngioma Metastasize? Case Report and Review of the Literature. *Neurosurg* 2001; 48(4):933-935.
 Kristopaitis T, Thomas C, Petruzzelli GJ, et al. Malignant Craniopharyngioma. *Arch Pathol Lab Med* 2000; 124(9):1356-1360.
 Paulus W, Stockel C, Krauss J, Sorensen N, et al. Odontogenic Classification of Craniopharyngiomas. A Clinicopathologic Study of 54 Cases. *Histopathol* 1997; 30(2):171-176.
 Raghavan R, Dickey WT, Margraf LR, et al. Proliferative Activity in Craniopharyngiomas. Clinicopathological Correlations in Adults and Children. *Surg Neurol*; 54(3):241-247.
 Fahlbusch R, Honegger J, Paulus W, et al. Surgical Treatment of Craniopharyngiomas. Experience with 168 Patients. *J Neurosurg* 1999; 90(2):237-250.

Case No. 5, Accession No. 22530

September 2002

Bakersfield - Chordoma
Baldwin Park (Kaiser Permanente) - Chordoma (3)
Bay Area - Chordoma (4)
Daly City (Seton Medical Center) - Myxoid chondrosarcoma
Fontana (Kaiser Permanente) - Chordoma
Hayward/Fremont - Chordoma
Loma Linda (Loma Linda University Residents) - Chordoma
Long Beach - Chordoma (7)
Monterey (Community Hospital of Monterey Peninsula) - Metastatic carcinoma vs. chordoma
Moreno Valley - Chordoma
Mountain Area - Chordoma (4)
Mountain View (El Camino Pathology Group) - Chordoma
Oakland (Kaiser Permanente) - Chordoma (3)
Orange (Orange County Medical Group) - Chordoma
Orange (UCI Medical Center Residents) - Chordoma, spinal cord

San Diego (Naval Medical Center) - Chordoma
San Francisco (UCSF Medical Center) - Chordoma
Santa Barbara (Santa Barbara Cottage Hospital) - Myxopapillary ependymoma
Santa Rosa (Santa Rosa Memorial Hospital) - Chordoma (3)
Ventura (Unilab) - Chordoma (3)
Alaska (Alaska Native Medical Center) - Chordoma (2)
Arizona (Phoenix Memorial Hospital) - Chordoma
Florida (Munroe Regional Medical Center) - Chordoma
Florida (Pathology Associates) - Chordoma
Florida (Winter Haven Hospital) - Chordoma
Indiana (Fort Wayne) - Myxopapillary ependymoma
Louisiana (Louisiana State University Hospital) - Chordoma
Maryland (Johns Hopkins Hospital Residents) - Chordoma
Maryland (National Naval Medical Center) - Chordoma (10)
Massachusetts (Brigham and Women's Hospital) - Chordoma
Massachusetts (New England Medical Center Residents) - Chordoma
Michigan (Oakwood Hospital) - Chordoma
Missouri (Truman Medical Center) - Chordoma
Nebraska (Creighton University School of Medicine Residents) - Chordoma
Nebraska (University of Nebraska Pathology Residents) - Chordoma
New Jersey (Overlook Hospital) - Chordoid meningioma (3)
New York (Cornell Pathology Residents) - Chordoid meningioma
New York (Impath, Inc) - Chordoma
New York (Nassau University Medical Center) - Chordoma, spinal cord
New York (Stony Brook University Hospital Residents) - Chordoid meningioma
New York (Westchester Medical Center) - Chordoid meningioma
North Carolina (Wake Forest Residents) - Chordoma
Pennsylvania (Allegheny General Hospital) - Chordoma
Pennsylvania (Conemaugh Memorial Hospital) - Myxomatous chordoma
Puerto Rico (University of Puerto Rico) - Chordoma
Texas (ProPath Services) - Chordoma (2)
Texas (Scott and White Memorial Hospital) - Chordoid meningioma
Washington (University of Washington) - Chordoma
West Virginia (Greenbrier Valley Medical Center) - Microcystic meningioma
Wisconsin (Meriter Health Services) - Chordoma
Australia (North Queensland Pathology) - Chondroid chordoma vs. chordoid meningioma
Australia (Royal Prince Alfred Hospital) - Chordoid meningioma (5); Chordoma (2)
Canada (Foothills Hospital) - Chordoma
Hong Kong (Hong Kong Baptist Hospital) - Clear cell meningioma
Ireland (St. James Hospital) - Chordoma (exclude carcinoma)
Japan (Shimada City Hospital) - Chordoma
Japan (Yamanashi Medical University) - Chordoid meningioma (2); Chordoma (1); Paraganglioma (1)

Case 5 - Diagnosis:

Chordoma, extra-dural, in region of T7
 T-X7410, M-93703

Case 5 - References:

Walker WP, Landas SK, Bromley CM and Sturm MT. Immunohistochemical Distinction of Classic and Chondroid Chordomas. *Mod Pathol* 1991; 4(5):661-666.
 Crapanzano JP, Ali SZ, Ginsberg MS, et al. Chordoma. A Cytologic Study with Histologic and Radiologic Correlation. *Cancer* 2001; 93(1):40-51.
 Haeckel C, Krueger S, Kuester D, et al. Expression of Cathepsin K in Chordoma. *Hum Pathol* 2000; 31(7):834-840.

Bergh P, Kindblom LG, Gunterberg B, et al. Prognostic Factors in Chordoma of the Sacrum and Mobile Spine. A Study of 39 Patients. *Cancer* 2000; 88(9):2122-2134.

Moriki T, Takahashi T, Wada M, et al. Chondroid Chordoma. Fine-Needle Aspiration Cytology with Histopathological, Immunohistochemical, and Ultrastructural Study of Two Cases. *Diagn Cytopathol* 1999; 21(5):335-339.

Case No. 6, Accession No. 13433

September 2002

Bakersfield - Oligodendroglioma

Baldwin Park (Kaiser Permanente) - Oligodendroglioma (3)

Bay Area - Vascular malformation with infarction (3)

Daly City (Seton Medical Center) - Oligodendroglioma

Fontana (Kaiser Permanente) - Arteriovenous malformation (AVM)

Hayward/Fremont - Oligodendroglioma

Loma Linda (Loma Linda University Residents) - Oligodendroglioma, grade II

Long Beach - Oligodendroglioma (7)

Monterey (Community Hospital of Monterey Peninsula) - Dysembryoplastic neuroepithelial tumor

Moreno Valley - Oligodendroglioma

Mountain Area - Oligodendroglioma (4)

Mountain View (El Camino Pathology Group) - Dysembryoplastic neuroepithelial tumor (DNET)

Oakland (Kaiser Permanente) - Oligodendroglioma (3)

Orange (Orange County Medical Group) - Oligodendroglioma

Orange (UCI Medical Center Residents) - Oligodendroglioma, cerebrum

San Diego (Naval Medical Center) - Oligodendroglioma

San Francisco (UCSF Medical Center) - Oligodendroglioma

Santa Barbara (Santa Barbara Cottage Hospital) - Low grade oligodendroglioma

Santa Rosa (Santa Rosa Memorial Hospital) - Oligodendroglioma (3)

Ventura (Unilab) - Pilocytic astrocytoma (2); Oligodendroglioma (1)

Alaska (Alaska Native Medical Center) - Oligodendroglioma (1); Astrocytoma (? pilocytic) (1)

Arizona (Phoenix Memorial Hospital) - Dysembryoplastic neuroepithelial tumor

Florida (Munroe Regional Medical Center) - Oligodendroglioma

Florida (Pathology Associates) - Tuberous sclerosis

Florida (Winter Haven Hospital) - Oligodendroglioma

Indiana (Fort Wayne) - Subependymal giant cell astrocytoma

Louisiana (Louisiana State University Hospital) - Dysembryoplastic neuroepithelial tumor

Maryland (Johns Hopkins Hospital Residents) - Oligodendroglioma (1); Well-differentiated oligodendroglioma (1)

Maryland (National Naval Medical Center) - Pilocytic astrocytoma (10)

Massachusetts (Brigham and Women's Hospital) - Low grade oligodendroglioma vs. dysembryoplastic neuroepithelial tumor

Massachusetts (New England Medical Center Residents) - Oligoastrocytoma

Michigan (Oakwood Hospital) - Oligodendroglioma

Missouri (Truman Medical Center) - Pilocytic astrocytoma

Nebraska (Creighton University School of Medicine Residents) - Oligodendroglioma

Nebraska (University of Nebraska Pathology Residents) - Oligodendroglioma, grade 2

New Jersey (Overlook Hospital) - Oligodendroglioma (3)

New York (Cornell Pathology Residents) - Pilocytic astrocytoma

New York (Impath, Inc) - Oligodendroglioma

New York (Nassau University Medical Center) - Oligodendroglioma, cerebrum

New York (Stony Brook University Hospital Residents) - Low grade oligoastrocytoma

New York (Westchester Medical Center) - Oligodendroglioma

North Carolina (Wake Forest Residents) - Oligodendroglioma

Pennsylvania (Allegheny General Hospital) - Pilocytic astrocytoma

Pennsylvania (Conemaugh Memorial Hospital) - Oligodendroglioma

Puerto Rico (University of Puerto Rico) - Cavernous hemangioma
Texas (ProPath Services) - Pilocytic astrocytoma (2)
Texas (Scott and White Memorial Hospital) - Oligodendroglioma
Washington (University of Washington) - Oligodendroglioma, maybe with pilocytic astrocytoma component
West Virginia (Greenbrier Valley Medical Center) - Calcifying pseudoneoplasm
Wisconsin (Meriter Health Services) - Oligodendroglioma
Australia (North Queensland Pathology) - Pilocytic astrocytoma
Australia (Royal Prince Alfred Hospital) - Oligodendroglioma
Canada (Foothills Hospital) - Oligodendroglioma
Hong Kong (Hong Kong Baptist Hospital) - Oligodendroglioma
Ireland (St. James Hospital) - Oligodendroglioma (? composite oligo/astrocytoma)
Japan (Shimada City Hospital) - Oligodendroglioma
Japan (Yamanashi Medical University) - Oligodendroglioma (2); Pilocytic astrocytoma (2)

Case 6 - Diagnosis:

Oligodendroglioma, right cerebrum
 T-X2000, M-94503

Case 6 - References:

Smith MT, Ludwig CL, Godfrey AD, et al. Grading of Oligodendrogliomas. *Cancer* 1983; 52(11):2107-2114.
 Korshunov A and Golanov A. The Prognostic Significance of DNA Topoisomerase II-Alpha (Ki-S1), p21/Cip-1, p27/Kip-1 Protein Immunoexpression in Oligodendrogliomas. *Arch Pathol Lab Med* 2001; 125(7):892-898.
 Watson MA, Perry A, Budhara V, Hicks C, et al. Gene Expression Profiling with Oligonucleotide Microarrays Distinguishes World Health Organization Grade of Oligodendrogliomas. *Cancer Res* 2001; 61(5):1825-1829.
 Allam A, Radwi A, El Weshi A, et al. Oligodendroglioma. An Analysis of Prognostic Factors and Treatment Results. *Am J Clin Oncol* 2000; 23(2):170-175.
 Fortin D, Cairncross GJ and Hammond RR. Oligodendroglioma. An Appraisal of Recent Data Pertaining to Diagnosis and Treatment. *Neurosurg* 1999; 45(6):1279-1291.
 Min KW and Scheithauer BW. Clear Cell Ependymoma. A Mimic of Oligodendroglioma. Clinicopathologic and Ultrastructural Considerations. *Am J Surg Pathol* 1997; 21(7):820-826.

Case No. 7, Accession No. 29591

September 2002

Bakersfield - Schwannoma
Baldwin Park (Kaiser Permanente) - Nerve sheath tumor (3)
Bay Area - Peripheral nerve sheath tumor with perineural features vs. schwannoma with pacinian features (2); Neurofibroma (1)
Daly City (Seton Medical Center) - Solitary fibrous tumor
Fontana (Kaiser Permanente) - Neurofibroma
Hayward/Fremont - Schwannoma
Loma Linda (Loma Linda University Residents) - Solitary fibrous tumor
Long Beach - Schwannoma (7)
Monterey (Community Hospital of Monterey Peninsula) - "Ancient" neurofibroma
Moreno Valley - Neurofibroma with degenerative atypia
Mountain Area - Schwannoma (4)
Mountain View - Neurofibroma with ancient change
Oakland (Kaiser Permanente) - Neurofibroma (3)
Orange (UCI Medical Center Residents) - Schwannoma, right cheek
San Diego (Naval Medical Center) - Ancient schwannoma (10); Malignant peripheral nerve sheath tumor, low grade (1)
San Francisco (UCSF Medical Center) - MPNST
Santa Barbara (Santa Barbara Cottage Hospital) - Ancient schwannoma
Santa Rosa (Santa Rosa Memorial Hospital) - Neurothekeoma (2); Neurofibroma with atypical features (atypical neurofibroma) (1)
Ventura (Unilab) - Schwannoma (2); Dermatofibrosarcoma protuberans (1)
Alaska (Alaska Native Medical Center) - Schwannoma (with ancient change) (1); Neurofibroma (1)
Arizona (Phoenix Memorial Hospital) - Solitary fibrous tumor

Florida (Munroe Regional Medical Center) - Schwannoma
Florida (Pathology Associates) - Neurofibroma
Florida (Winter Haven Hospital) - Schwannoma
Indiana (Fort Wayne) - Low grade MPNST
Louisiana (Louisiana State University Hospital) - Peripheral nerve sheath tumor (? schwannoma)
Maryland (Johns Hopkins Hospital Residents) - Schwannoma with degenerative nuclear atypism (1); Atypical neurofibroma (1)
Maryland (National Naval Medical Center) - Schwannoma (10); Angiofibroma (1)
Massachusetts (Brigham and Women's Hospital) - Schwannoma
Massachusetts (New England Medical Center Residents) - Schwannoma
Michigan (Oakwood Hospital) - Schwannoma
Missouri (Truman Medical Center) - Neurofibroma/schwannoma
Nebraska (Creighton University School of Medicine Residents) - Neurothecoma
Nebraska (University of Nebraska Pathology Residents) - Neurofibroma
New Jersey (Overlook Hospital) - Neurofibroma (2); Degenerated schwannoma (1)
New York (Cornell Pathology Residents) - Neurofibroma
New York (Impath, Inc) - Schwannoma
New York (Nassau University Medical Center) - Ancient schwannoma, cheek
New York (Stony Brook University Hospital Residents) - Ancient schwannoma
New York (Westchester Medical Center) - Schwannoma
North Carolina (Wake Forest Residents) - Schwannoma with ancient changes
Pennsylvania (Allegheny General Hospital) - Neurofibroma
Pennsylvania (Conemaugh Memorial Hospital) - Neurofibroma
Puerto Rico (University of Puerto Rico) - Neurofibroma
Texas (ProPath Services) - Neurilemoma (2)
Texas (Scott and White Memorial Hospital) - Schwannoma
Washington (University of Washington) - Schwannoma vs. solitary fibrous tumor vs. sarcoma
West Virginia (Greenbrier Valley Medical Center) - Perineurioma
Wisconsin (Meriter Health Services) - Benign peripheral nerve sheath tumor, favor neurofibroma
Australia (North Queensland Pathology) - Ancient schwannoma
Australia (Royal Prince Alfred Hospital) - Schwannoma (6); Perineurioma (1)
Canada (Foothills Hospital) - Schwannoma
Hong Kong (Hong Kong Baptist Hospital) - Neurofibrosarcoma
Ireland (St. James Hospital) - Schwannoma (? neurofibroma, ? melanoma)
Japan (Shimada City Hospital) - Neurofibroma (intraneural)
Japan (Yamanashi Medical University) - Schwannoma (4)

Case 7 - Diagnosis:

Schwannoma with degenerative changes, cheek
 T-Y0300, M-95600

Case 7 - References:

Argenyi ZB, Balogh K and Abraham AA. Degenerative ("Ancient") Changes in Benign Cutaneous Schwannoma. A Light Microscopic, Histochemical and Immunohistochemical Study. *J Cutan Pathol* 1993; 20(2):148-153.
 Dodd LG, Marom EM, Dash RC, et al. Fine-Needle Aspiration Cytology of "Ancient" Schwannoma. *Diagn Cytopathol* 1999; 20(5):307-311.
 Jayaraj SM, Levine T, Frosh AC, et al. Ancient Schwannoma Masquerading as Parotid Pleomorphic Adenoma. *J Laryngol Otol* 1997; 111(11):1088-1090.

Case No. 8, Accession No. 12988

September 2002

Bakersfield - Gemistocytic astrocytoma
Baldwin Park (Kaiser Permanente) - Gemistocytic astrocytoma, grade 2 (3)

Bay Area - Gemistocytic astrocytoma (3)
Daly City (Seton Medical Center) - Gemistocytic astrocytoma
Fontana (Kaiser Permanente) - Gemistocytic astrocytoma, if multiple sclerosis is ruled out clinically
Hayward/Fremont - Gemistocytic astrocytoma
Loma Linda (Loma Linda University Residents) - Gemistocytic astrocytoma
Long Beach - Gemistocytic astrocytoma (7)
Monterey (Community Hospital of Monterey Peninsula) - Gemistocytic astrocytoma
Moreno Valley - Gemistocytic astrocytoma
Mountain Area - Gemistocytic astrocytoma, grade II/IV (2); Gemistocytic astrocytoma (2)
Mountain View (El Camino Pathology Group) - Gemistocytic astrocytoma
Oakland (Kaiser Permanente) - Gemistocytic astrocytoma (3)
Orange (Orange County Medical Group) - Gemistocytic astrocytoma, grade 2
Orange (UCI Medical Center Residents) - Gemistocytic astrocytoma, cerebrum
San Diego (Naval Medical Center) - Anaplastic astrocytoma, gemistocytic type
San Francisco (UCSF Medical Center) - Gemistocytic astrocytoma
Santa Barbara (Santa Barbara Cottage Hospital) - Gemistocytic astrocytoma
Santa Rosa (Santa Rosa Memorial Hospital) - Astrocytoma (2); Gemistocytic astrocytoma (1)
Ventura (Unilab) - Gemistocytic astrocytoma (2); Astrocytoma, pilocytic ? (1)
Alaska (Alaska Native Medical Center) - Astrocytoma (anaplastic/gemistocytic) (1); Astrocytoma with gemistocytic features (1)
Arizona (Phoenix Memorial Hospital) - Gemistocytic astrocytoma
Florida (Munroe Regional Medical Center) - Gemistocytic astrocytoma
Florida (Pathology Associates) - Ganglion cell tumor
Florida (Winter Haven Hospital) - Gemistocytic astrocytoma
Indiana (Fort Wayne) - Gemistocytic astrocytoma, grade 2
Louisiana (Louisiana State University Hospital) - Differentiated (gemistocytic) astrocytoma
Maryland (Johns Hopkins Hospital Residents) - Gemistocytic astrocytoma (1); Gemistocytic astrocytoma, grade II/IV
Maryland (National Naval Medical Center) - Gemistocytic astrocytoma, grade 2 (10)
Massachusetts (Brigham and Women's Hospital) - Subependymal giant cell astrocytoma
Massachusetts (New England Medical Center Residents) - Low grade astrocytoma
Michigan (Oakwood Hospital) - Gemistocytic astrocytoma
Missouri (Truman Medical Center) - Gemistocytic astrocytoma
Nebraska (Creighton University School of Medicine Residents) - Gemistocytic astrocytoma
Nebraska (University of Nebraska Pathology Residents) - Astrocytoma, gemistocytic, grade 2
New Jersey (Overlook Hospital) - Gemistocytic astrocytoma, grade 2 (3)
New York (Cornell Pathology Residents) - Diffuse astrocytoma, grade 2
New York (Impath, Inc) - Fibrillary astrocytoma (gemistocytic)
New York (Nassau University Medical Center) - Gemistocytic astrocytoma, cerebrum
New York (Stony Brook University Hospital Residents) - Gemistocytic astrocytoma
New York (Westchester Medical Center) - Gemistocytic astrocytoma
North Carolina (Wake Forest Residents) - Gemistocytic astrocytoma
Pennsylvania (Allegheny General Hospital) - Gemistocytic astrocytoma
Pennsylvania (Conemaugh Memorial Hospital) - Gemistocytic astrocytoma
Puerto Rico (University of Puerto Rico) - Gemistocytic astrocytoma
Texas (ProPath Services) - Gemistocytic astrocytoma (2)
Texas (Scott and White Memorial Hospital) - Gemistocytic astrocytoma
Washington (University of Washington) - Gemistocytic astrocytoma
West Virginia (Greenbrier Valley Medical Center) - Gemistocytic astrocytoma
Wisconsin (Meriter Health Services) - Gemistocytic astrocytoma
Australia (North Queensland Pathology) - Gemistocytic astrocytoma
Australia (Royal Prince Alfred Hospital) - Gemistocytic astrocytoma
Canada (Foothills Hospital) - Gemistocytic astrocytoma
Hong Kong (Hong Kong Baptist Hospital) - Gemistocytic astrocytoma
Ireland (St. James Hospital) - Astrocytoma, gemistocytic

Japan (Shimada City Hospital) - Gemistocytic astrocytoma

Japan (Yamanashi Medical University) - Anaplastic astrocytoma (grade III) (1); Gemistocytic astrocytoma (3)

Case 8 - Diagnosis:

Gemistocytic astrocytoma, right parietal cerebrum

T-X2000, M-94113

Case 8 – References:

Krouwer HG, Davis RL, Silver P and Prados M. Gemistocytic Astrocytomas. A Reappraisal. *J Neurosurg* 1991; 74(3):399-406.

Watanabe K, Tachibana O, Yonekawa Y, et al. Role of Gemistocytes in Astrocytoma Progression. *Lab Invest* 1997; 76(2):277-284.

Geddes JF, Thom M, Robinson SF, et al. Granular Cell Change in Astrocytic Tumors. *Am J Surg Pathol* 1996; 20(1):55-63.

Kattar MM, Kupsky WJ, Shimoyama RK, et al. Clonal Analysis of Gliomas. *Hum Pathol* 1997; 28(10):1166-1179.

Case No. 9, Accession No. 8693

September 2002

Bakersfield - Medulloblastoma

Baldwin Park (Kaiser Permanente) - Medulloblastoma (3)

Bay Area - Medulloblastoma (2); PNET (cannot exclude a pinealcytoma) (1)

Daly City (Seton Medical Center) - Medulloblastoma

Fontana (Kaiser Permanente) - Medulloblastoma

Hayward/Fremont - Medulloblastoma

Loma Linda (Loma Linda University Residents) - Medulloblastoma/PNET

Long Beach - Medulloblastoma (7)

Monterey (Community Hospital of Monterey Peninsula) - Medulloblastoma

Moreno Valley - Medulloblastoma

Mountain Area - Medulloblastoma (4)

Mountain View (El Camino Pathology Group) - Primitive neuroepithelial tumor (PNET) vs. ependymoblastoma

Oakland (Kaiser Permanente) - Medulloblastoma (3)

Orange (Orange County Medical Group) - Medulloblastoma

Orange (UCI Medical Center Residents) - Medulloblastoma/PNET, brain

San Diego (Naval Medical Center) - Ependymoma

San Francisco (UCSF Medical Center) - Medulloblastoma

Santa Barbara (Santa Barbara Cottage Hospital) - Medulloblastoma

Santa Rosa (Santa Rosa Memorial Hospital) - Medulloblastoma (3)

Ventura (Unilab) - Ependymoma (2); Medulloblastoma (1)

Alaska (Alaska Native Medical Center) - Ependymoma (1); Medulloblastoma (1)

Arizona (Phoenix Memorial Hospital) - Ependymoma

Florida (Munroe Regional Medical Center) - Medulloblastoma

Florida (Pathology Associates) - Ependymoma

Florida (Winter Haven Hospital) - Medulloblastoma

Indiana (Fort Wayne) - Medulloblastoma (PNET)

Louisiana (Louisiana State University Hospital) - Medulloblastoma, Diff diag: ependymoma (1)

Maryland (Johns Hopkins Hospital Residents) - Medulloblastoma (2)

Maryland (National Naval Medical Center) - Medulloblastoma (10)

Massachusetts (Brigham and Women's Hospital) - Atypical teratoid/rhabdoid tumor

Massachusetts (New England Medical Center Residents) - Medulloblastoma

Michigan (Oakwood Hospital) - Medulloblastoma

Missouri (Truman Medical Center) - Medulloblastoma

Nebraska (Creighton University School of Medicine Residents) - Medulloblastoma

Nebraska (University of Nebraska Pathology Residents) - Medulloblastoma

New Jersey (Overlook Hospital) - Ependymoma (2); Medulloblastoma (1)

New York (Cornell Pathology Residents) - Medulloblastoma

New York (Impath, Inc) - Medulloblastoma
New York (Nassau University Medical Center) - Medulloblastoma, brain
New York (Stony Brook University Hospital Residents) - Medulloblastoma
New York (Westchester Medical Center) - Choroid plexus carcinoma
North Carolina (Wake Forest Residents) - Medulloblastoma
Pennsylvania (Allegheny General Hospital) - Medulloblastoma
Pennsylvania (Conemaugh Memorial Hospital) - Cellular ependymoma
Puerto Rico (University of Puerto Rico) - Primitive neuroectodermal tumor, PNET
Texas (ProPath Services) - Medulloblastoma (2)
Texas (Scott and White Memorial Hospital) - Ependymoma
Washington (University of Washington) - Desmoplastic medulloblastoma (PNET)
West Virginia (Greenbrier Valley Medical Center) - Ependymoma
Wisconsin (Meriter Health Services) - PNET
Australia (North Queensland Pathology) - PNET ? medulloblastoma
Australia (Royal Prince Alfred Hospital) - Medulloblastoma
Canada (Foothills Hospital) - Medulloblastoma, melanotic
Hong Kong (Hong Kong Baptist Hospital) - Pilocytic astrocytoma
Ireland (St. James Hospital) - Medulloblastoma/PNET
Japan (Shimada City Hospital) - Ependymoma
Japan (Yamanashi Medical University) - Medulloblastoma (2); Ependymoblastoma (1); Ependymoma (1)

Case 9 - Diagnosis:

Medulloblastoma, floor of 4th ventricle
 T-32400, M-94703

Case 9 – References:

Roberts RO, Lynch CF, Jones MP and Hart MN. Medulloblastoma. A Population-Based Study of 532 Cases. *J Neuropathol Exp Neurol* 1991; 50(2):134-144.
 Goldberg-Stern H, Gadoth N, Stem S, et al. The Prognostic Significance of Glial Fibrillary Acidic Protein Staining in Medulloblastoma. *Cancer* 1991; 68(3):568-573.
 Caputy AJ, McCullough DC, Manz HJ, et al. A Review of the Factors Influencing Prognosis of Medulloblastoma. The Importance of Cell Differentiation. *J Neurosurg* 1987; 66(1):80-87.
 Badiali M, Pession A, Basso G, et al. N-myc and C-myc Oncogenes Amplification in Medulloblastomas. Evidence of Particularly Aggressive Behavior of a Tumor with C-myc Amplification. *Tumori* 1991; 77(2):118-121.
 Kunschner LJ, Kuttesch J and Hess K. Survival and Recurrence Factors in Adult Medulloblastoma. The M.D. Anderson Cancer Center Experience from 1978 to 1998. *Neuro-Oncol* 2001; 3(3):167-173.
 Kumar PV, Hosseinzadeh M and Bedayat GR. Cytologic Findings of Medulloblastoma in Crush Smears. *Acta Cytol* 2001; 45(4):542-546.

Case No. 10, Accession No. 18994

September 2002

Bakersfield - Glioblastoma and gliosarcoma with epithelial metaplasia
Baldwin Park (Kaiser Permanente) - Glioblastoma multiforme (3); GBM (malignant ependyoma) (1)
Bay Area - Glioblastoma multiforme (3)
Daly City (Seton Medical Center) - Glioblastoma multiforme
Fontana (Kaiser Permanente) - High grade pleomorphic xanthoastrocytoma (glioblastoma multiforme)
Hayward/Fremont - Glioblastoma multiforme
Loma Linda (Loma Linda University Residents) - High grade astrocytoma, grade III vs. glioblastoma
Long Beach - Glioblastoma multiforme (7)
Monterey (Community Hospital of Monterey Peninsula) - Glioblastoma vs. ganglioglioma
Moreno Valley - Glioblastoma multiforme
Mountain Area - Glioblastoma multiforme (3); Glioblastoma (1)
Mountain View (El Camino Pathology Group) - Glioblastoma multiforme with aberrant cytokeratin expression
Oakland (Kaiser Permanente) - Glioblastoma multiforme (3)

Orange (Orange County Medical Group) - Glioblastoma multiforme
Orange (UCI Medical Center Residents) - Pleomorphic xanthomatous astrocytoma, right temporal lobe
San Diego (Naval Medical Center) - Glioblastoma multiforme (10); Pleomorphic xanthoastrocytoma with malignant transformation (1)
San Francisco (UCSF Medical Center) - Pleomorphic xanthoastrocytoma
Santa Barbara (Santa Barbara Cottage Hospital) - Gliosarcoma
Santa Rosa (Santa Rosa Memorial Hospital) - Glioblastoma multiforme (3)
Ventura (Unilab) - Glioblastoma multiforme (2); Glioblastoma (1)
Alaska (Alaska Native Medical Center) - Glioblastoma multiforme (1); Glioblastoma (1)
Arizona (Phoenix Memorial Hospital) - Metastatic carcinoma
Florida (Munroe Regional Medical Center) - Gliosarcoma with epithelial metaplasia
Florida (Pathology Associates) - Glioblastoma
Florida (Winter Haven Hospital) - Glioblastoma
Indiana (Fort Wayne) - High grade glioma
Louisiana (Louisiana State University Hospital) - Pleomorphic xanthoastrocytoma
Maryland (Johns Hopkins Hospital Residents) - Glioblastoma multiforme (WHO, grade IV) (1); Glioblastoma multiforme (1)
Maryland (National Naval Medical Center) - Glioblastoma multiforme (10)
Massachusetts (Brigham and Women's Hospital) - Giant cell GBM
Massachusetts (New England Medical Center Residents) - Glioblastoma multiforme
Michigan (Oakwood Hospital) - Glioblastoma multiforme
Missouri (Truman Medical Center) - Glioblastoma multiforme
Nebraska (Creighton University School of Medicine Residents) - Glioblastoma multiforme
Nebraska (University of Nebraska Pathology Residents) - Glioblastoma multiforme, epithelioid type
New Jersey (Overlook Hospital) - Glioblastoma (3)
New York (Cornell Pathology Residents) - PXA with glioblastoma
New York (Impath, Inc) - Glioblastoma multiforme
New York (Nassau University Medical Center) - Glioblastoma, right temporal lobe
New York (Stony Brook University Hospital Residents) - Giant cell glioblastoma
New York (Westchester Medical Center) - Gliosarcoma
North Carolina (Wake Forest Residents) - Glioblastoma multiforme
Pennsylvania (Allegheny General Hospital) - Glioblastoma multiforme
Pennsylvania (Conemaugh Memorial Hospital) - PXA (pleomorphic xanthomatous astrocytoma)
Puerto Rico (University of Puerto Rico) - Anaplastic pleomorphic xanthoastrocytoma
Texas (ProPath Services) - Glioblastoma multiforme (2)
Texas (Scott and White Memorial Hospital) - Metastatic carcinoma
Washington (University of Washington) - Glioblastoma, maybe with sarcoma component
West Virginia (Greenbrier Valley Medical Center) - Glioblastoma multiforme
Wisconsin (Meriter Health Services) - Gliosarcoma
Australia (North Queensland Pathology) - Glioblastoma multiforme
Australia (Royal Prince Alfred Hospital) - GBM
Canada (Foothills Hospital) - Atypical teratoid rhabdoid tumor
Hong Kong (Hong Kong Baptist Hospital) - Glioblastoma multiforme
Ireland (St. James Hospital) - Glioblastoma multiforme
Japan (Shimada City Hospital) - Gliosarcoma
Japan (Yamanashi Medical University) - Glioblastoma multiforme (3); Pleomorphic xanthoastrocytoma (1)

Case 10 - Diagnosis:

Grade 4 fibrillary astrocytoma (“glioblastoma”) with epithelial metaplasia, right temporal lobe
 T-X2500, M-94003

Consultation: Bernd W. Scheithauer, M.D., Mayo Clinic, Rochester, MI. “Grade 4 fibrillary astrocytoma with epithelial metaplasia.”

Case 10 - References:

- Fisher PG, Breiter SN, Carson BS, et al. A Clinicopathologic Reappraisal of Brain Stem Tumor Classification. Identification of Pilocystic Astrocytoma and Fibrillary Astrocytoma as Distinct Entities. *Cancer* 2000; 89(7):1569-1576.
- Salmon I, Kiss R, Dewitte O, et al. Histopathologic Grading and DNA Ploidy in Relation to Survival Among 206 Adult Astrocytic Tumor Patients. *Cancer* 1992; 70(2):538-546.
- von Deimling A, Eibl RH, Ohgaki H, et al. p53 Mutations are Associated with 17p Allelic Loss in Grade II and Grade III Astrocytoma. *Cancer Res* 1992; 52(10):2987-2990.