

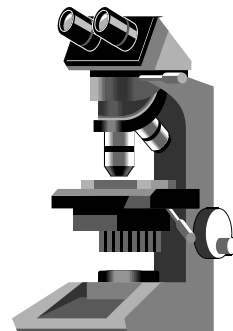


CALIFORNIA  
TUMOR TISSUE REGISTRY

*PULMONARY PATHOLOGY*

Minutes – Subscription A

January, 2005



**SUGGESTED READING (General Topics from Recent Literature):**

Trends in Mortality from Major Cancers in the European Union, Including Acceding Countries, in 2004. Levi F, Lucchini F, Negri E, and La Vecchia La C. *Am Cancer Soc* 2004; 101(12):2843-2850.

Proton Pump Inhibitor Therapy for Chronic Laryngo-Pharyngitis. A Randomized Placebo-Control Trial. *Otolaryng Head and Neck Surg* 2004; 131:342-350.

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**FILE DIAGNOSES**

(If possible, submit answers on website at [www.cttr.org](http://www.cttr.org).  
Click “subscriptions”, then click submit answers”.)

**Case 1:**

Lymphangioleiomyomatosis with scattered tumorlets (selected slides), lung  
T-28000, M-76410, M-76310

**Case 2:**

Carcinosarcoma, lung  
T-28000, M-89803

**Case 3:**

Well-differentiated adenocarcinoma mixed, with bronchioloalveolar, acinar, and papillary growth patterns, lung  
T-28000, M-82503

**Case 4:**

Neuroendocrine carcinoma, lung  
T-28000, M-80103

**Case 5:**

Large (giant) cell carcinoma, lung and abdomen  
T-28000, T-Y4100, M-80123

**Case 6:**

Hodgkin’s lymphoma, classic and nodular sclerosis, with lymphocytic depletion, lung  
T-28000, M-96503

**Case 7:**

Mesothelioma  
T-28000, M-90503

**Case 8:**

Malignant solitary fibrous tumor/hemangiopericytoma, lung  
T-28000, M-91503

**Case 9:**

Primitive neuroectodermal tumor/Ewing’s sarcoma/Askin’s tumor, chest wall  
T-Y2150, M-92603

**Case 10:**

Spindle cell malignancy, most likely mesothelioma, lung  
T-28000, M-90503

## Case Submissions by Study Group

### **Case No. 1, Accession No. 29811**

**January 2005**

Alameda (Alameda County Medical Center) - Congenital cystic adenomatoid malformation  
Baldwin Park (Kaiser Permanente) - Lymphangioleiomyomatosis (3)  
Fontana (Kaiser Permanente) - Arteriovenous malformation  
Glendale - Hemangioma  
Hayward/Fremont (St. Rose Hospital) - Alveolar adenoma (cystic lymphangioma)  
Irvine (University of California) - Lymphangiomatosis  
Laguna (South Coast Medical Center) - Lymphangioma vs. vascular malformation  
Long Beach - Lymphangioleiomyomatosis (3); AV malformation (3)  
Monterey Park (Garfield Medical Center) - Cystic hemangioma  
Monterey Park (Monterey Peninsula Pathologists) - Hemangioma/angiomatosis  
Mountain View (El Camino Pathology Group) - Lymphangioleiomyomatosis  
Oakland (Kaiser Permanente) - Lymphangioleiomyomatosis (5)  
Orange (Orange County Medical Group) - Lymphangioleiomatosis  
Sacramento (UC Davis Medical Center) - Arteriovenous malformation  
San Diego (Naval Medical Center) - Hemangiomatosis  
San Francisco (San Francisco General Hospital) - Arteriovenous malformation  
Santa Rosa Memorial Hospital - Lymphangiomyoma (1); Localized lymphangiomyoma with secondary hemorrhage (1); Lymphangioma (1)  
Ventura - Vascular malformation  
Arizona (Maryvale Medical Center) - Lymphangiomatosis  
Arkansas (University of Arkansas Medical Center) - Lymphangioleiomyomatosis (1); Lymphangiomyoma (1)  
Colorado, Evergreen - Pulmonary lymphangiomyomatosis  
Colorado (Lutheran Medical Center) - Extra lobar sequestration  
Connecticut - Cystic adenomatoid malformation, probably type I  
Florida, Tallahassee - Arteriovenous malformation  
Florida (Winter Haven Hospital) - Diffuse pulmonary hemorrhage (1); Vascular malformation with interstitial hemorrhage (1)  
Illinois - Lymphangioma  
Indiana (Howard Community Hospital) - Pulmonary AVM  
Louisiana (Louisiana State University Medical Center) - Lymphangiomyomatosis  
Maryland (Johns Hopkins Hospital) - Lymphangioma  
Maryland (National Naval Medical Center) - Lymphangioma  
Maryland (University of Maryland) - Favor bronchopulmonary sequestration over lymphangiomyomatosis  
Massachusetts (New England Medical Center) - Lymphangioleiomyomatosis  
Michigan (Oakwood Hospital) - Sequestration, likely intralobar  
Minnesota (Fairview Ridges Hospital) - Lymphangiomyomatosis  
Minnesota (University of Minnesota Residents) - Pulmonary AV malformation  
Nebraska (Creighton University School of Medicine) - Diffuse pulmonary lymphangiomatosis  
Nevada (Nevada Pathology Residents) - Lymphangiomyomatosis  
New York (Nassau University Medical Center) - Lymphangioleiomyomatosis  
New York (Stony Brook University Hospital Residents) - Hemangioma (arteriovenous type)  
New York (Westchester Medical Center) - Lymphangioleiomyomatosis  
North Carolina - Lymphangioleiomyomatosis  
North Carolina (Mountain Area Pathology) - Lymphangiomyomatosis (2); AVM (1)  
Ohio (Medical College of Ohio) - Arteriovenous malformation  
Ohio (McCullough Hyde Memorial Hospital) - Arteriovenous malformation of lung  
Pennsylvania (Allegheny General Hospital) - AV malformation  
Pennsylvania (Conemaugh Memorial Medical Center) - Hemangiomatosis  
Pennsylvania (Drexel University College of Medicine) - Sclerosing hemangioma  
Pennsylvania (Lehigh Valley Hospital) - Intralobar pulmonary sequestration

Pennsylvania (Mt. Nittany Medical Center) - Bronchopulmonary sequestration, intralobar type  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Hemangioma  
Puerto Rico (University of Puerto Rico) - Lymphangiohemangioma  
Texas, Lubbock - Foregut cyst  
Texas (Propath Associates) - Pulmonary arteriovenous fistula (2)  
Texas (Scott & White Memorial Hospital) - AV malformation  
West Virginia (Greenbrier Valley Medical Center) - Pulmonary lymphangioleiomyomatosis  
Wisconsin (Bellin Health) - Arteriovenous malformation/hemangioma  
Wisconsin (Meriter Hospital) - Hemangioma  
Australia (North Queensland Pathology) - Lymphangioleiomyomatosis  
Australia (Royal Prince Alfred Hospital) - Vascular malformation  
Brazil (UNIFESP/EPM) - Bronchopulmonary sequestration, intralobar variety (1); Pulmonary lymphangioma (1)  
Canada (Foothills Medical Center) - Lymphangioleiomyomatosis  
Canada (Woodstock General Hospital) - Arteriovenous hemangioma, lung  
Hong Kong (Hong Kong Baptist Hospital) - Pulmonary angiomatosis/vascular malformation  
Netherlands, Amsterdam - Hemangioma  
Qatar - Intra-lobar pulmonary sequestration

#### **Case 1 - Diagnosis:**

Lymphangioleiomyomatosis with scattered tumorlets (selected slides), lung  
 T-28000, M-76410, M-76310

#### **Case 1 – References:**

Tazelaar HD, Kerr D, Yousem, SA, et al. Diffuse Pulmonary Lymphangiomatosis. *Hum Pathol* 1993; 24(12):1313-1322.  
 Fleischhack G, Theuerkauf I, Ludwig KH, et al. Diffuse Hemangiolymphangiomatosis in an Infant. *Med Pediatr Oncol* 2002; 38(2):120-123.  
 Steffelaar JW, Nijkamp DA and Hilvering C. Pulmonary Lymphangiomyotosis. Demonstration of Smooth Muscle Antigen By Immunofluorescence Technique. *Scand J. Respir Dis* 1977; 58(2):103-109.

#### **Case No. 2, Accession No. 22967**

**January 2005**

Alameda (Alameda County Medical Center) - Sarcomatoid carcinoma  
Baldwin Park (Kaiser Permanente) - Poorly differentiated carcinoma (non-oat cell) (1); Poorly differentiated sarcomatoid carcinoma (no metastatic renal cell) (1); Non-small cell (poorly-differentiated) carcinoma (1)  
Fontana (Kaiser Permanente) - Pleomorphic carcinoma  
Glendale - Spindled-cell carcinoma  
Hayward/Fremont (St. Rose Hospital) - Sarcomatoid carcinoma  
Irvine (University of California) - Spindle cell carcinoma  
Laguna (South Coast Medical Center) - Sarcomatoid carcinoma  
Long Beach - Poorly differentiated carcinoma (6)  
Monterey Park (Garfield Medical Center) - Carcinosarcoma  
Monterey Park (Monterey Peninsula Pathologists) - Poorly differentiated malignant tumor, favor sarcomatoid carcinoma  
Mountain View (El Camino Pathology Group) - Sarcomatoid carcinoma  
Oakland (Kaiser Permanente) - Sarcomatoid carcinoma (5)  
Orange (Orange County Medical Group) - Carcinoma  
Sacramento (UC Davis Medical Center) - Poorly differentiated carcinoma consistent with sarcomatous features  
San Diego (Naval Medical Center) - Sarcomatoid carcinoma  
San Francisco (San Francisco General Hospital) - Epithelioid sarcoma  
Santa Rosa Memorial Hospital - Fibrohistiocytic tumor, malignant vs. sarcomatoid carcinoma (1); Poorly differentiated sarcomatoid carcinoma (1); Poorly differentiated spindle cell carcinoma (1)  
Ventura - Hemangiopericytoma  
Arizona (Maryvale Medical Center) - Pleomorphic carcinoma  
Arkansas (University of Arkansas Medical Center) - Sarcomatoid carcinoma (pleomorphic subtype) (1); Spindle cell carcinoma (1)  
Colorado, Evergreen - Spindle cell/sarcomatoid carcinoma, giant cell features

Colorado (Lutheran Medical Center) - Carcinoma with sarcomatoid elements  
Connecticut - Pleomorphic (spindle and giant cell) carcinoma  
Florida, Tallahassee - Metaplastic carcinoma  
Florida (Winter Haven Hospital) - Undifferentiated malignant tumor (1); Spindle cell carcinoid (1)  
Illinois - Large cell undifferentiated carcinoma with spindle cell foci  
Indiana (Howard Community Hospital) - Poorly differentiated carcinoma  
Louisiana (Louisiana State University Medical Center) - Sarcoma, NOS  
Maryland (Johns Hopkins Hospital) - Monophasic synovial sarcoma  
Maryland (National Naval Medical Center) - Sarcomatoid carcinoma (1); Spindle cell carcinoma (1)  
Maryland (University of Maryland) - Sarcomatoid carcinoma  
Massachusetts (New England Medical Center) - Undifferentiated large cell carcinoma  
Michigan (Oakwood Hospital) - Malignant, favor carcinoma with sarcomatoid elements  
Minnesota (Fairview Ridges Hospital) - Sarcomatoid carcinoma  
Minnesota (University of Minnesota Residents) - High grade sarcoma  
Nebraska (Creighton University School of Medicine) - Undifferentiated sarcoma consistent with malignant fibrous histiocytoma  
Nevada (Nevada Pathology Residents) - Sarcomatoid carcinoma  
New York (Nassau University Medical Center) - Sarcomatoid carcinoma  
New York (Stony Brook University Hospital Residents) - Carcinosarcoma  
New York (Westchester Medical Center) - Synovial sarcoma vs. carcinosarcoma vs. mesothelioma  
North Carolina - Synovial sarcoma  
North Carolina (Mountain Area Pathology) - Carcinosarcoma (1); Sarcomatoid carcinoma (2)  
Ohio (Medical College of Ohio) - High grade sarcoma, NOS  
Ohio (McCullough Hyde Memorial Hospital) - Sarcoma/carcinosarcoma  
Pennsylvania (Allegheny General Hospital) - Sarcomatoid carcinoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Metastatic malignant fibrous histiocytoma  
Pennsylvania (Drexel University College of Medicine) - Spindle cell carcinoma  
Pennsylvania (Lehigh Valley Hospital) - Poorly differentiated carcinoma  
Pennsylvania (Mt. Nittany Medical Center) - Spindle cell carcinoma  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Anaplastic large cell  
Puerto Rico (University of Puerto Rico) - Large cell undifferentiated carcinoma/sarcoma  
Texas, Houston - Large cell carcinoma, spindle cell variety  
Texas, Lubbock - Synovial sarcoma  
Texas (ProPath Associates) - High grade leiomyosarcoma (1); High grade leiomyosarcoma (1)  
Texas (Scott & White Memorial Hospital) - Sarcomatoid carcinoma  
West Virginia (Greenbrier Valley Medical Center) - Pleomorphic carcinoma, spindle cell type  
Wisconsin (Bellin Health) - Synovial sarcoma  
Wisconsin (Meriter Hospital) - Sarcomatoid carcinoma or high grade sarcoma  
Australia (North Queensland Pathology) - Pleomorphic carcinoma  
Australia (Royal Prince Alfred Hospital) - High grade sarcoma/sarcomatoid carcinoma  
Brazil (UNIFESP/EPM) - Sarcomatoid carcinoma (1); High grade biphasic synovial sarcoma (1)  
Canada (Foothills Medical Center) - Sarcomatoid carcinoma  
Canada (Woodstock General Hospital) - Sarcomatoid carcinoma, lung  
Hong Kong (Hong Kong Baptist Hospital) - Desmoplastic mesothelioma  
Netherlands, Amsterdam - Synoviosarcoma  
Qatar - Undifferentiated large cell carcinoma

## **Case 2 - Diagnosis:**

Carcinosarcoma, lung  
 T-28000, M-89803

## **Case 2 - References:**

Zimmerman KG, Sobonyare RE and Payne CM. Histochemical and Ultrastructural Features of an Unusual Pulmonary Carcinosarcoma. *Hum Pathol* 1981; 12(11):1046-1051.

Ishida T, Tateishi M, Kaneko S, et al. Carcinosarcoma and Spindle Cell Carcinoma of the Lung. Clinicopathologic and Immunohistochemical Studies. *J Thorac Cardiovasc Surg* 1990; 100(6):844-852.

Jenkins BJ. Carcinosarcoma of the Lung. Report of a Case and Review of the Literature. *J Thorac Surg* 1968; 55(5):657-662.

Nappi O, Glasner SD, Swanson PE, et al. Biphasic and Monophasic Sarcomatoid Carcinomas of the Lung. A Reappraisal of "Carcinosarcomas" and "Spindle-Cell Carcinomas". *Am J Clin Pathol* 1994; 102(3):331-340.

**Case No. 3, Accession No. 29767**

**January 2005**

Alameda (Alameda County Medical Center) - Mucinous bronchioloalveolar carcinoma

Baldwin Park (Kaiser Permanente) - Bronchioloalveolar carcinoma (1); Bronchioloalveolar carcinoma, mucinous type (2)

Fontana (Kaiser Permanente) - Adenocarcinoma vs. adenosquamous carcinoma

Glendale - Adenocarcinoma

Hayward/Fremont (St. Rose Hospital) - Mucinous bronchioalveolar cell carcinoma (consistent with clear cells)

Irvine (University of California) - Adenocarcinoma, papillary large cell subtype

Laguna (South Coast Medical Center) - Bronchioloalveolar carcinoma, mucinous/goblet cell type

Long Beach - Adenocarcinoma with bronchioloalveolar pattern (6)

Monterey Park (Garfield Medical Center) - Bronchioalveolar carcinoma

Monterey Park (Monterey Peninsula Pathologists) - Bronchioalveolar carcinoma, mucinous

Mountain View (El Camino Pathology Group) - Bronchioalveolar carcinoma

Oakland (Kaiser Permanente) - Adenocarcinoma (4); Bronchioalveolar carcinoma (1)

Orange (Orange County Medical Group) - Bronchioloalveolar carcinoma

Sacramento (UC Davis Medical Center) - Adenocarcinoma

San Diego (Naval Medical Center) - Mucinous bronchioalveolar carcinoma

San Francisco (San Francisco General Hospital) - Bronchioalveolar carcinoma, mucinous type

Santa Rosa Memorial Hospital - Bronchioalveolar carcinoma (1); Mucin secreting bronchioalveolar adenocarcinoma (2)

Ventura - Bronchioloalveolar carcinoma

Arizona (Maryvale Medical Center) - Bronchioloalveolar carcinoma

Arkansas (University of Arkansas Medical Center) - Bronchioalveolar adenocarcinoma (1); Bronchioloalveolar carcinoma (1)

Colorado, Evergreen - Bronchioloalveolar carcinoma

Colorado (Lutheran Medical Center) - Mucinous bronchioloalveolar carcinoma

Connecticut - Mucinous adenocarcinoma

Florida, Tallahassee - Mucinous bronchioloalveolar carcinoma

Florida (Winter Haven Hospital) - Bronchioalveolar carcinoma (2)

Illinois - Bronchioalveolar carcinoma

Indiana (Howard Community Hospital) - Mucinous bronchioalveolar cell carcinoma

Louisiana (Louisiana State University Medical Center) - Invasive adenocarcinoma

Maryland (Johns Hopkins Hospital) - Invasive adenocarcinoma arising in a mucinous bronchioloalveolar carcinoma

Maryland (National Naval Medical Center) - Mucinous adenocarcinoma (8); Clear cell adenocarcinoma (3)

Maryland (University of Maryland) - Bronchioloalveolar carcinoma, mucinous variant

Massachusetts (New England Medical Center) - Mucinous bronchioloalveolar carcinoma

Michigan (Oakwood Hospital) - Adenocarcinoma, bronchioloalveolar mucinous type

Minnesota (Fairview Ridges Hospital) - Bronchioloalveolar carcinoma, mucinous type

Minnesota (University of Minnesota Residents) - Mucinous bronchioalveolar carcinoma

Nebraska (Creighton University School of Medicine) - Bronchioloalveolar carcinoma, mucinous type

Nevada (Nevada Pathology Residents) - Adenocarcinoma consistent with bronchioalveolar features

New York (Nassau University Medical Center) - Bronchioloalveolar carcinoma

New York (Stony Brook University Hospital Residents) - Bronchioloalveolar carcinoma

New York (Westchester Medical Center) - Bronchioloalveolar carcinoma, mucinous type

North Carolina - Bronchioloalveolar carcinoma

North Carolina (Mountain Area Pathology) - Bronchioloalveolar carcinoma (3)

Ohio (Medical College of Ohio) - Mucinous bronchioloalveolar carcinoma

Ohio (McCullough Hyde Memorial Hospital) - Bronchioalveolar carcinoma  
Pennsylvania (Allegheny General Hospital) - Bronchioalveolar carcinoma, mucinous type  
Pennsylvania (Conemaugh Memorial Medical Center) - Bronchioalveolar carcinoma, mucinous  
Pennsylvania (Drexel University College of Medicine) - Moderately differentiated adenocarcinoma  
Pennsylvania (Lehigh Valley Hospital) - Bronchioalveolar carcinoma  
Pennsylvania (Mt. Nittany Medical Center) - Bronchioalveolar carcinoma, mucinous type  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Diffuse bronchioalveolar carcinoma  
Puerto Rico (University of Puerto Rico) - Adenocarcinoma  
Texas, Houston - Bronchioloalveolar carcinoma  
Texas, Lubbock - Bronchioloalveolar carcinoma  
Texas (Propath Associates) - Bronchioalveolar carcinoma, mucinous variant (2)  
Texas (Scott & White Memorial Hospital) - Adenocarcinoma with bronchioloalveolar features  
West Virginia (Greenbrier Valley Medical Center) - Mucinous bronchioloalveolar carcinoma  
Wisconsin (Bellin Health) - Mucinous bronchioalveolar carcinoma  
Wisconsin (Meriter Hospital) - Adenocarcinoma with bronchioloalveolar features  
Australia (North Queensland Pathology) - Bronchioalveolar carcinoma; Diff Dx: Adenocarcinoma  
Australia (Royal Prince Alfred Hospital) - Adenocarcinoma with bronchioalveolar areas  
Brazil (UNIFESP/EPM) - Mucinous bronchioloalveolar carcinoma (2)  
Canada (Foothills Medical Center) - Bronchioloalveolar carcinoma, mucinous type  
Canada (Woodstock General Hospital) - Bronchioloalveolar carcinoma, lung  
Hong Kong (Hong Kong Baptist Hospital) - Adenocarcinoma, mixed subtypes  
Netherlands, Amsterdam - Adenocarcinoma  
Qatar - Bronchioloalveolar carcinoma, mucinous type

### **Case 3 - Diagnosis:**

Well-differentiated adenocarcinoma mixed, with bronchioloalveolar, acinar, and papillary growth patterns,  
 Lung T-28000, M-82503

### **Case 3 - References:**

Mooi, MD, Dingemans KP, Wagenaar SS, et al. Ultrastructure Heterogeneity of Lung Carcinomas. Representativity of Samples for Electron Microscopy in Tumor Classification. *Hum Pathol* 1990; 21(12):1227-1234.  
 Robbins CS, Dowe DE, Gondrarova SI, et al. Cigarette Smoke Decreases Pulmonary Dendritic Cells and Impacts Antiviral Immune Responsiveness. *Am J Respir Cell Mol Biol* 2004; 30(2):202-211.  
 Mourtada-Maarabouni M, Williams GT. RBM5/LUCA-15 Tumor Suppression By Control of Apoptosis and the Cell Cycle? *Scientific World Journal* 2002; 2(7):1885-1890.  
 Spitz MR, Wei Q, Dong Q, et al. Genetic Susceptibility to Lung Cancer. The Role of DNA Damage and Repair. *Cancer Epidemiol Biomarkers Prev* 2003; 12(8):689-698.  
 Depierre A, Lagrange JL, Theobald S, et al. Summary Report of the Standards, Options and Recommendations for the Management of Patients with Non-Small-Cell Lung Carcinoma. *Br J Cancer* 2003; 89(Suppl 1):535-549.

## **Case No. 4, Accession No. 15035**

**January 2005**

Alameda (Alameda County Medical Center) - Neuroendocrine carcinoma  
Baldwin Park (Kaiser Permanente) - Small cell carcinoma vs. atypical carcinoid (1); Neuroendocrine tumor (1); Small cell carcinoma (1)  
Fontana (Kaiser Permanente) - Small cell carcinoma vs. atypical carcinoid  
Glendale - Atypical carcinoid  
Hayward/Fremont (St. Rose Hospital) - Small cell carcinoma  
Irvine (University of California) - Neuroendocrine tumor, atypical carcinoid  
Laguna (South Coast Medical Center) - Neuroendocrine carcinoma  
Long Beach - Neuroendocrine carcinoma (6)  
Monterey Park (Garfield Medical Center) - Atypical carcinoid tumor  
Monterey Park (Monterey Peninsula Pathologists) - Atypical carcinoid

Mountain View (El Camino Pathology Group) - Atypical carcinoid  
Oakland (Kaiser Permanente) - Atypical carcinoid tumor (5)  
Orange (Orange County Medical Group) - Atypical carcinoid  
Sacramento (UC Davis Medical Center) - Atypical carcinoid  
San Diego (Naval Medical Center) - Poorly differentiated neuroendocrine carcinoma (mixed small and large cell type)  
San Francisco (San Francisco General Hospital) - Neuroendocrine carcinoma  
Santa Rosa Memorial Hospital - Neuroendocrine tumor (1); Poorly differentiated carcinoma, rule out neuroendocrine differentiation (1); Atypical carcinoid tumor of bronchus (1)  
Ventura - Atypical carcinoid  
Arizona (Maryvale Medical Center) - Atypical carcinoid  
Arkansas (University of Arkansas Medical Center) - Intravascular large B-cell lymphoma (1); Atypical carcinoid tumor (1)  
Colorado, Evergreen - Atypical carcinoid  
Colorado (Lutheran Medical Center) - Atypical carcinoid tumor  
Connecticut - Atypical carcinoid  
Florida, Tallahassee - Atypical carcinoid tumor  
Florida (Winter Haven Hospital) - Atypical (malignant) carcinoid (1); Carcinoid (1)  
Illinois - Carcinoid tumor  
Indiana (Howard Community Hospital) - Malignant carcinoid  
Louisiana (Louisiana State University Medical Center) - Atypical carcinoid  
Maryland (Johns Hopkins Hospital) - High grade neuroendocrine carcinoma, primary vs. metastasis  
Maryland (National Naval Medical Center) - Atypical carcinoid  
Maryland (University of Maryland) - Moderately differentiated neuroendocrine carcinoma  
Massachusetts (New England Medical Center) - Atypical carcinoid  
Michigan (Oakwood Hospital) - Small cell carcinoma  
Minnesota (Fairview Ridges Hospital) - Neuroendocrine carcinoma, poorly differentiated  
Minnesota (University of Minnesota Residents) - Atypical carcinoid tumor (6); Small cell neuroendocrine carcinoma (3)  
Nebraska (Creighton University School of Medicine) - High grade neuroendocrine carcinoma  
Nevada (Nevada Pathology Residents) - Small cell neuroendocrine carcinoma, intermediate cell type  
New York (Nassau University Medical Center) - Small cell neuroendocrine carcinoma  
New York (Stony Brook University Hospital Residents) - Neuroendocrine carcinoma  
New York (Westchester Medical Center) - Malignant carcinoid tumor  
North Carolina - Atypical carcinoid tumor  
North Carolina (Mountain Area Pathology) - Small cell carcinoma, rule out PNET (1); Neuroendocrine carcinoma, rule out PNET (1); Small cell carcinoma (1)  
Ohio (Medical College of Ohio) - Small cell carcinoma  
Ohio (McCullough Hyde Memorial Hospital) - Lymphangiotic spread small cell carcinoma  
Pennsylvania (Allegheny General Hospital) - Small cell carcinoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Atypical carcinoid tumor  
Pennsylvania (Drexel University College of Medicine) - Large cell neuroendocrine carcinoma  
Pennsylvania (Lehigh Valley Hospital) - Atypical carcinoid  
Pennsylvania (Mt. Nittany Medical Center) - Small cell carcinoma  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Atypical carcinoid  
Puerto Rico (University of Puerto Rico) - Small cell carcinoma  
Texas, Houston - Neuroendocrine carcinoma  
Texas, Lubbock - Malignant carcinoid  
Texas (ProPath Associates) - Neuroendocrine carcinoma (1); Metastatic adrenal cell carcinoma (1)  
Texas (Scott & White Memorial Hospital) - PNET  
West Virginia (Greenbrier Valley Medical Center) - Carcinoid tumor  
Wisconsin (Bellin Health) - Atypical carcinoid  
Wisconsin (Meriter Hospital) - Atypical carcinoid  
Australia (North Queensland Pathology) - Neuroendocrine carcinoma  
Australia (Royal Prince Alfred Hospital) - Neuroendocrine carcinoma  
Brazil (UNIFESP/EPM) - Carcinoid tumor (1); Large cell neuroendocrine carcinoma (1)



Canada (Foothills Medical Center) - Atypical carcinoid  
Canada (Woodstock General Hospital) - Small cell carcinoma, lung  
Hong Kong (Hong Kong Baptist Hospital) - Atypical carcinoid  
Netherlands, Amsterdam - Atypical carcinoid  
Qatar - Neuroendocrine carcinoma

**Case 4 - Diagnosis:**

Neuroendocrine carcinoma, lung  
T-28000, M-80103

**Case 4 - References:**

Auerbach O and Garfinkel L. The Changing Pattern of Lung Carcinoma. *Cancer* 1991; 68(9):1973-1977.  
Miller JD, Gorenstein LA and Patterson GA. Staging. The Key to Rational Management of Lung Cancer. *Ann Thorac Surg* 1992; 53(1):170-178.  
Zakowski BF. Pathology of Small Cell Carcinoma of the Lung. *Semin Oncol* 2003; 30(1):3-8.  
Gugger M, Burckhardt E, Kappeler A, et al. Quantitative Expansion of Structural Genomic Alterations in the Spectrum of Neuroendocrine Lung Carcinomas. *J Pathol* 2002; 196(4):408-415.  
Cerilli LA, Ritter JH, Mills SE, et al. Neuroendocrine Neoplasms of the Lung. *Am J Clin Pathol* 2001; (116 Suppl):S65-96.  
Ullmann R, Petzmann S, Sharma A, et al. Chromosomal Aberrations in a Series of Large-Cell Neuroendocrine Carcinoma. Unexpected Divergence from Small-Cell Carcinoma of the Lung. *Hum Pathol* 2001; 32(10):1059-1063.

**Case No. 5, Accession No. 17510**

**January 2005**

Alameda (Alameda County Medical Center) - Metastatic malignancy  
Baldwin Park (Kaiser Permanente) - Non oat cell consistent with giant cell features (1); Poorly differentiated carcinoma with giant cell features vs. ? metastatic melanoma (1); Non-small cell carcinoma with giant cells  
Fontana (Kaiser Permanente) - Undifferentiated large cell carcinoma of lung, metastatic to adrenal gland  
Glendale - Giant cell carcinoma  
Hayward/Fremont (St. Rose Hospital) - Poorly differentiated carcinoma, lung vs. adrenal origin  
Irvine (University of California) - Giant cell carcinoma of lung  
Laguna (South Coast Medical Center) - Metastatic adrenal carcinoma vs. large cell undifferentiated carcinoma  
Long Beach - Giant cell carcinoma (6)  
Monterey Park (Garfield Medical Center) - Adrenal cortical carcinoma, metastatic  
Monterey Park (Monterey Peninsula Pathologists) - Metastatic adrenal cortical carcinoma  
Mountain View (El Camino Pathology Group) - Giant cell carcinoma vs. metastatic adrenocortical carcinoma  
Oakland (Kaiser Permanente) - Consistent with metastatic adrenal carcinoma (5)  
Orange (Orange County Medical Group) - Metastatic pheochromocytoma  
Sacramento (UC Davis Medical Center) - Metastatic adrenocortical carcinoma vs. giant cell carcinoma  
San Diego (Naval Medical Center) - Metastatic adrenal cortical carcinoma  
San Francisco (San Francisco General Hospital) - Metastatic pheochromocytoma  
Santa Rosa Memorial Hospital - Poorly differentiated carcinoma rule out metastasis (1); Large cell anaplastic carcinoma (1); Large cell undifferentiated carcinoma (giant cell carcinoma) (1)  
Ventura - Undifferentiated large cell carcinoma  
Arizona (Maryvale Medical Center) - Metastatic adrenal cortical carcinoma  
Arkansas (University of Arkansas Medical Center) - Adrenal cortical carcinoma/Sarcomatoid carcinoma (giant cell subtype) (1); Large cell carcinoma, giant cell type (1)  
Colorado, Evergreen - Adrenal cortical carcinoma, metastatic  
Colorado (Lutheran Medical Center) - Giant cell carcinoma  
Connecticut - Pleomorphic (giant cell) carcinoma  
Florida, Tallahassee - Large cell carcinoma consistent with adrenal or other primary  
Florida (Winter Haven Hospital) - Undifferentiated large cell carcinoma (1); Metastatic adrenal cortical carcinoma (1)  
Illinois - Large cell carcinoma, giant cell type  
Indiana (Howard Community Hospital) - Metastatic adrenocortical carcinoma  
Louisiana (Louisiana State University Medical Center) - Metastatic carcinoma (consistent with primary adenocortical carcinoma)

Maryland (Johns Hopkins Hospital) - Giant cell pleomorphic carcinoma  
Maryland (National Naval Medical Center) - Metastatic adrenal cortical carcinoma  
Maryland (University of Maryland) - Metastatic adrenal carcinoma  
Massachusetts (New England Medical Center) - Metastatic adrenal cortical carcinoma  
Michigan (Oakwood Hospital) - Pleomorphic carcinoma, rule out metastatic adrenocortical choriocarcinoma  
Minnesota (Fairview Ridges Hospital) - Large cell carcinoma (giant cell carcinoma)  
Minnesota (University of Minnesota Residents) - Metastatic adrenal cortical carcinoma  
Nebraska (Creighton University School of Medicine) - Giant cell carcinoma of lung  
Nevada (Nevada Pathology Residents) - Giant cell carcinoma  
New York (Nassau University Medical Center) - Adrenal cortical carcinoma  
New York (Stony Brook University Hospital Residents) - Giant cell carcinoma  
New York (Westchester Medical Center) - Giant cell carcinoma of lung vs. adrenal cortical carcinoma  
North Carolina - Large cell carcinoma  
North Carolina (Mountain Area Pathology) - Giant cell carcinoma (1); Giant cell carcinoma rule out metastatic adrenal cell carcinoma or pheochromocytoma (1); Giant cell carcinoma vs. metastatic adrenal cortical carcinoma (1)  
Ohio (Medical College of Ohio) - Metastatic adrenal cortical carcinoma  
Ohio (McCullough Hyde Memorial Hospital) - Metastatic adrenocortical carcinoma  
Pennsylvania (Allegheny General Hospital) - Anaplastic carcinoma (undifferentiated large cell carcinoma)  
Pennsylvania (Conemaugh Memorial Medical Center) - Large cell carcinoma  
Pennsylvania (Drexel University College of Medicine) - Adrenal cortical carcinoma metastasis to lung  
Pennsylvania (Lehigh Valley Hospital) - Non-small cell carcinoma  
Pennsylvania (Mt. Nittany Medical Center) - Adrenal cortical carcinoma, metastatic to lung  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Melanoma  
Puerto Rico (University of Puerto Rico) - Metastatic adrenal carcinoma  
Texas, Houston - Large cell carcinoma  
Texas, Lubbock - Metastatic adrenal cortical carcinoma  
Texas (Propath Associates) - Metastatic adrenal cell carcinoma (2)  
Texas (Scott & White Memorial Hospital) - Large cell carcinoma  
West Virginia (Greenbrier Valley Medical Center) - Pleomorphic carcinoma of giant cell type  
Wisconsin (Bellin Health) - Adrenal cortical carcinoma  
Wisconsin (Meriter Hospital) - Giant cell carcinoma of the lung vs. metastatic adrenocortical carcinoma  
Australia (North Queensland Pathology) - Metastatic adrenal cortical carcinoma  
Australia (Royal Prince Alfred Hospital) - Metastatic adrenal cortical carcinoma  
Brazil (UNIFESP/EPM) - Giant cell carcinoma (1); Large cell undifferentiated tumor; favor malignant melanoma (should rule out large cell undifferentiated carcinoma (1)  
Canada (Foothills Medical Center) - Metastatic adrenal cortical carcinoma  
Canada (Woodstock General Hospital) - Giant cell carcinoma vs. metastatic adrenal cortical carcinoma, lung  
Hong Kong (Hong Kong Baptist Hospital) - Poorly differentiated carcinoma (metastatic adrenal carcinoma)  
Netherlands, Amsterdam - Poorly differentiated carcinoma  
Qatar - Poorly differentiated carcinoma, most probably metastatic from adrenal cortical carcinoma

#### **Case 5 - Diagnosis:**

Large (giant) cell carcinoma, lung and abdomen  
 T-28000, T-Y4100, M-80123

#### **Case 5 - References:**

Kallenberg F and Jaque J. Giant Cell Carcinoma of the Lung. Clinical and Pathological Assessment. Comparison with Other Large Cell Anaplastic Bronchogenic Carcinomas. *Scand J Thor Cardiovasc Surg* 1979; 13(3):343-346.  
 Nash AD and Stout AP. Giant Cell Carcinoma of the Lung. Report of 5 Cases. *Cancer* 1958; 11(2):359-376.  
 Wang NS, Seemayer TA, Ahmed MN, et al. Giant Cell Carcinoma of the Lung. A Light and Electron Microscopic Study. *Hum Pathol* 1976; 7(1):3-16.  
 Herman DL, Bullock WK and Waken JK. Giant Cell Adenocarcinoma of the Lung. *Cancer* 1966; 19(10):1337-1346.  
 Cohen V and Khuri FR. Progress in Lung Cancer Chemoprevention. *Cancer Control* 2003; 10(4):315-324.  
 Bepler G, Goodridge CD, Djulbegovic B, et al. A Systemic Review and Lessons Learned from Early Lung Cancer Detection Trials Using Low-Dose Computed Tomography of the Chest. *Cancer Control* 2003; 10(4):306-31

Alameda (Alameda County Medical Center) - Hodgkin's lymphoma  
Baldwin Park (Kaiser Permanente) - Hodgkin's lymphoma involving lung (1); Hodgkin's lymphoma (2)  
Fontana (Kaiser Permanente) - Hodgkin's lymphoma  
Glendale - Hodgkin's  
Hayward/Fremont (St. Rose Hospital) - Pulmonary Hodgkin's disease  
Irvine (University of California) - Classical Hodgkin's lymphoma  
Laguna (South Coast Medical Center) - Hodgkin's disease vs. anaplastic large cell lymphoma, Hodgkin-like (1)  
Long Beach - Hodgkin's disease (6)  
Monterey Park (Garfield Medical Center) - Mixed cellularity Hodgkin's disease  
Monterey Park (Monterey Peninsula Pathologists) - Classical Hodgkin's lymphoma  
Mountain View (El Camino Pathology Group) - Hodgkin's disease  
Oakland (Kaiser Permanente) - Hodgkin's disease (5)  
Orange (Orange County Medical Group) - Hodgkin's disease  
Sacramento (UC Davis Medical Center) - Hodgkin's lymphoma  
San Diego (Naval Medical Center) - Classic Hodgkin's disease  
San Francisco (San Francisco General Hospital) - Hodgkin's lymphoma  
Santa Rosa Memorial Hospital - Hodgkin's disease (2); Pulmonary Hodgkin's disease (1)  
Ventura - Hodgkin's disease  
Arizona (Maryvale Medical Center) - Hodgkin's lymphoma, metastatic  
Arkansas (University of Arkansas Medical Center) - Hodgkin's lymphoma (classical) (2)  
Colorado, Evergreen - Nodular sclerosing Hodgkin's disease  
Colorado (Lutheran Medical Center) - Hodgkin lymphoma  
Connecticut - Hodgkin's lymphoma  
Florida, Tallahassee - Hodgkin's lymphoma  
Florida (Winter Haven Hospital) - Atypical infiltrate, rule out inflammatory vs. neoplasm (1); Large cell lymphoma (1)  
Illinois - Hodgkin's lymphoma  
Indiana (Howard Community Hospital) - Inflammatory myofibroblastic tumor  
Louisiana (Louisiana State University Medical Center) - Lymphoproliferative disease consistent with Hodgkin's disease  
Maryland (Johns Hopkins Hospital) - Hodgkin lymphoma, classical type  
Maryland (National Naval Medical Center) - Hodgkin's lymphoma, classical  
Maryland (University of Maryland) - Hodgkin's lymphoma  
Massachusetts (New England Medical Center) - Classical Hodgkin's lymphoma  
Michigan (Oakwood Hospital) - Classical Hodgkin's lymphoma  
Minnesota (Fairview Ridges Hospital) - Hodgkin's lymphoma  
Minnesota (University of Minnesota Residents) - Classical Hodgkin's lymphoma  
Nebraska (Creighton University School of Medicine) - Hodgkin's disease  
Nevada (Nevada Pathology Residents) - Hodgkin's lymphoma, classic type  
New York (Nassau University Medical Center) - Anaplastic large cell lymphoma  
New York (Stony Brook University Hospital Residents) - Hodgkin's lymphoma  
New York (Westchester Medical Center) - Hodgkin's lymphoma  
North Carolina - Hodgkin's lymphoma  
North Carolina (Mountain Area Pathology) - Hodgkin's disease (2); Hodgkin's lymphoma (1)  
Ohio (Medical College of Ohio) - Hodgkin's lymphoma  
Ohio (McCullough Hyde Memorial Hospital) - Hodgkin's disease  
Pennsylvania (Allegheny General Hospital) - Hodgkin's lymphoma, lymphocyte rich, classic  
Pennsylvania (Conemaugh Memorial Medical Center) - Hodgkin's lymphoma  
Pennsylvania (Drexel University College of Medicine) - Hodgkin's disease  
Pennsylvania (Lehigh Valley Hospital) - Hodgkin's lymphoma  
Pennsylvania (Mt. Nittany Medical Center) - Hodgkin's lymphoma  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Hodgkin's nodular sclerosis  
Puerto Rico (University of Puerto Rico) - Classic Hodgkin's lymphoma  
Texas, Houston - Hodgkin's disease  
Texas, Lubbock - Hodgkin's lymphoma, mixed cellularity  
Texas (ProPath Associates) - Large cell lymphoma (1); Anaplastic large cell lymphoma (1)  
Texas (Scott & White Memorial Hospital) - Lymphatic infiltrate of large cell lymphoma  
West Virginia (Greenbrier Valley Medical Center) - Hodgkin's disease  
Wisconsin (Bellin Health) - Hodgkin's lymphoma, classic  
Wisconsin (Meriter Hospital) - Classical Hodgkin's disease  
Australia (North Queensland Pathology) - Hodgkin's disease

Australia (Royal Prince Alfred Hospital) - Hodgkin's disease  
Brazil (UNIFESP/EPM) - Hodgkin's disease (1); Pulmonary involvement of Hodgkin's lymphoma (1)  
Canada (Foothills Medical Center) - Hodgkin's lymphoma  
Canada (Woodstock General Hospital) - Anaplastic large cell lymphoma, lung  
Hong Kong (Hong Kong Baptist Hospital) - Pulmonary involvement by classical Hodgkin's lymphoma  
Netherlands, Amsterdam - Hodgkin's lymphoma (nodular sclerosis)  
Qatar - Hodgkin's lymphoma

#### **Case 6 - Diagnosis:**

Hodgkin's lymphoma, classic and nodular sclerosis, with lymphocytic depletion, lung  
 T-28000, M-96503

Consultation: Bharat Nathwani, M.D. LAC-USC Medical Center. "Classical Hodgkin's Lymphoma, nodular sclerosis Grade 2 (nodular sclerosis with lymphocyte depletion)."

#### **Case 6 - References:**

North LB, Fuller LM, Hagemeister FB, et al. The Significance of Initial Mediastinal Adenopathy in Hodgkin's Disease. *Am J Roentgenol* 1982; 138(2):229-235.  
 Nakamura S, Kaiserling E and Lennert K. Hodgkin's Disease with Lymphocytic Predominance, Nodular Type (Nodular Paragranuloma) Progressively Transformed Germinal Centres. A Cytohistological Histochemical Study. *Histopathol* 1979; 3(4):295-308.  
 Kojima M, Nakamura S, Motoori T, et al. Progressive Transformation of Germinal Centers. A Clinicopathological Study of 42 Japanese Patients. *Int J Surg Pathol* 2003; 11(2):101-107.  
 Kramer K and O'Brien A. Progressive Wheeze, Dry Cough. What Lies Beneath? Hodgkin's Disease. *Postgrad Med* 2002; 111(3):101-102.  
 Sauter C and Blum S. Regression of Lung Lesions In Hodgkin's Disease by Antibiotics. Case Report and Hypothesis on the Etiology of Hodgkin's Disease. *Am J Oncol* 2003; 26(1):92-94.  
 Stark P, Steinmetz A, and Hefetz M. Misleading Ga-67 Uptake in a Patient with Hodgkin's Disease, Mediastinal Deviation and Pulmonary Compression. *Clin Nucl Med* 2002; 27(12):898-899.

#### **Case No. 7, Accession No. 29753**

**January 2005**

Alameda (Alameda County Medical Center) - Mesothelioma, sarcomatous  
Baldwin Park (Kaiser Permanente) - Fibrous mesothelioma (1); Malignant mesothelioma (2)  
Fontana (Kaiser Permanente) - Mesothelioma  
Glendale - Mesothelioma  
Hayward/Fremont (St. Rose Hospital) - Mesothelioma  
Irvine (University of California) - Mesothelioma  
Laguna (South Coast Medical Center) - Mesothelioma, biphasic type  
Long Beach - Malignant mesothelioma (6)  
Monterey Park (Garfield Medical Center) - Mesothelioma, malignant  
Monterey Park (Monterey Peninsula Pathologists) - Mesothelioma  
Mountain View (El Camino Pathology Group) - Mesothelioma  
Oakland (Kaiser Permanente) - Malignant mesothelioma (5)  
Orange (Orange County Medical Group) - Malignant mesothelioma  
Sacramento (UC Davis Medical Center) - Sclerosing mesothelioma  
San Diego (Naval Medical Center) - Sarcomatoid mesothelioma  
San Francisco (San Francisco General Hospital) - Malignant mesothelioma  
Santa Rosa Memorial Hospital - Mesothelioma (3)  
Ventura - Mesothelioma  
Arizona (Maryvale Medical Center) - Malignant mesothelioma, biphasic type  
Arkansas (University of Arkansas Medical Center) - Desmoplastic mesothelioma  
Colorado, Evergreen - Malignant mesothelioma, desmoplastic type

Colorado (Lutheran Medical Center) - Mesothelioma  
Connecticut - Mesothelioma  
Florida, Tallahassee - Malignant mesothelioma  
Florida (Winter Haven Hospital) - Atypical granulomatosis (1); Mesothelioma (1)  
Illinois - Mesothelioma  
Indiana (Howard Community Hospital) - Fibrous mesothelioma (plaque-like)  
Louisiana (Louisiana State University Medical Center) - Compatible with mesothelioma  
Maryland (Johns Hopkins Hospital) - Sarcomatoid mesothelioma  
Maryland (National Naval Medical Center) - Mesothelioma  
Maryland (University of Maryland) - Mesothelioma  
Massachusetts (New England Medical Center) - Malignant mesothelioma  
Michigan (Oakwood Hospital) - Fibrous pleuritis  
Minnesota (Fairview Ridges Hospital) - Mesothelioma, spindle cell  
Minnesota (University of Minnesota Residents) - Atypical mesothelial proliferation  
Nebraska (Creighton University School of Medicine) - Mesothelioma  
Nevada (Nevada Pathology Residents) - Sarcomatoid mesothelioma  
New York (Nassau University Medical Center) - Malignant mesothelioma  
New York (Stony Brook University Hospital Residents) - Sarcomatoid mesothelioma  
New York (Westchester Medical Center) - Mesothelioma, epithelioid type  
North Carolina - Mesothelioma  
North Carolina (Mountain Area Pathology) - Mesothelioma (3)  
Ohio (Medical College of Ohio) - Sarcomatoid malignant mesothelioma  
Ohio (McCullough Hyde Memorial Hospital) - Mesothelioma  
Pennsylvania (Allegheny General Hospital) - Mesothelioma  
Pennsylvania (Conemaugh Memorial Medical Center) - Mesothelioma  
Pennsylvania (Drexel University College of Medicine) - Malignant mesothelioma  
Pennsylvania (Lehigh Valley Hospital) - Desmoplastic mesothelioma  
Pennsylvania (Mt. Nittany Medical Center) - Desmoplastic mesothelioma  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Mesothelioma  
Puerto Rico (University of Puerto Rico) - Mesothelioma  
Texas, Houston - Mesothelioma  
Texas, Lubbock - Mesothelioma  
Texas (Propath Associates) - Malignant mesothelioma (2)  
Texas (Scott & White Memorial Hospital) - Malignant mesothelioma  
West Virginia (Greenbrier Valley Medical Center) - Diffuse mesothelioma, malignant  
Wisconsin (Bellin Health) - Malignant mesothelioma  
Wisconsin (Meriter Hospital) - Desmoplastic mesothelioma  
Australia (North Queensland Pathology) - Mesothelioma  
Australia (Royal Prince Alfred Hospital) - Sarcomatoid mesothelioma  
Brazil (UNIFESP/EPM) - Malignant mesothelioma (2)  
Canada (Foothills Medical Center) - Malignant mesothelioma  
Canada (Woodstock General Hospital) - Mesothelioma, left pleura  
Hong Kong (Hong Kong Baptist Hospital) - Sarcomatoid mesothelioma  
Netherlands, Amsterdam - Malignant mesothelioma  
Qatar - Mesothelioma, fibrous

#### **Case 7 - Diagnosis:**

Mesothelioma

T-28000, M-90503

#### **Case 7 - References:**

Cai YC, Roggli V, Mark E, et al. Transforming Growth Factor Alpha and Epidermal Growth Factor Receptor in Reactive and Malignant Mesothelial Proliferations. *Arch Pathol Lab Med* 2004; 128(1):68-70.

Marchevsky AM and Wick MR. Current Controversies Regarding the Role and Asbestos Exposure in the Causation of Malignant Mesothelioma. The Need for an Evidence-Based Approach to Develop Medicolegal Guidelines. *Ann Diagn Pathol* 2003; 7(5):321-332.

Ordenez NG. Value of E-Cadherin and N-Cadherin Immunostaining in the Diagnosis of Mesothelioma. *Hum Pathol* 2003; 34(8):749-755.

Ordenez NG. The Immunohistochemical Diagnosis of Mesothelioma. A Comparative Study of Epithelioid Mesothelioma and Lung Adenocarcinoma. *Am J Surg Pathol* 2003; 27(8):1031-1051.

## Case No. 8, Accession No. 29643

January 2005

Alameda (Alameda County Medical Center) - Malignant solitary fibrous tumor

Baldwin Park (Kaiser Permanente) - Solitary fibrous tumor (3)

Fontana (Kaiser Permanente) - Solitary fibrous tumor

Glendale - Sarcoma, malignant solitary fibrous tumor vs. MPNST

Hayward/Fremont (St. Rose Hospital) - Solitary fibrous tumor

Irvine (University of California) - Malignant solitary fibrous tumor

Laguna (South Coast Medical Center) - Solitary fibrous tumor, malignant

Long Beach - Malignant solitary fibrous tumor (6)

Monterey Park (Garfield Medical Center) - Solitary fibrous tumor, malignant

Monterey Park (Monterey Peninsula Pathologists) - Solitary fibrous tumor

Mountain View (El Camino Pathology Group) - Malignant solitary fibrous tumor

Oakland (Kaiser Permanente) - Malignant solitary fibrous tumor (5)

Orange (Orange County Medical Group) - MFH

Sacramento (UC Davis Medical Center) - Malignant solitary fibrous tumor

San Diego (Naval Medical Center) - Solitary fibrous tumor

San Francisco (San Francisco General Hospital) - Myxoid malignant fibrous histiocytoma

Santa Rosa Memorial Hospital - Solitary fibrous tumor of pleura (1); Malignant solitary fibrous tumor (1)

Ventura - Localized fibrous tumor of pleura

Arizona (Maryvale Medical Center) - Malignant solitary fibrous tumor

Arkansas (University of Arkansas Medical Center) - Hemangiopericytoma

Colorado, Evergreen - Solitary fibrous tumor of the pleura

Colorado (Lutheran Medical Center) - Malignant solitary fibrous tumor

Connecticut - Malignant localized fibrous tumor

Florida, Tallahassee - Solitary fibrous tumor

Florida (Winter Haven Hospital) - Liposarcoma (1); Sarcoma, NOS (1)

Illinois - Solitary fibrous tumor

Indiana (Howard Community Hospital) - Kaposi's sarcoma

Louisiana (Louisiana State University Medical Center) - Angiosarcoma with epithelioid features

Maryland (Johns Hopkins Hospital) - Malignant solitary fibrous tumor

Maryland (National Naval Medical Center) - Malignant solitary fibrous tumor

Maryland (University of Maryland) - Malignant solitary fibrous tumor

Massachusetts (New England Medical Center) - Malignant solitary fibrous tumor

Michigan (Oakwood Hospital) - Solitary fibrous tumor

Minnesota (University of Minnesota Residents) - Solitary fibrous tumor

Nebraska (Creighton University School of Medicine) - High grade sarcoma/angiosarcoma

Nevada (Nevada Pathology Residents) - Malignant solitary fibrous tumor

New York (Nassau University Medical Center) - Malignant solitary fibrous tumor

New York (Stony Brook University Hospital Residents) - Solitary fibrous tumor

New York (Westchester Medical Center) - Solitary fibrous tumor, malignant

North Carolina - Solitary fibrous tumor

North Carolina (Mountain Area Pathology) - Solitary fibrous tumor (3)

Ohio (Medical College of Ohio) - Malignant solitary fibrous tumor

Ohio (McCullough Hyde Memorial Hospital) - Solitary fibrous tumor of pleura, malignant

Pennsylvania (Allegheny General Hospital) - Solitary fibrous tumor with atypia  
Pennsylvania (Conemaugh Memorial Medical Center) - Malignant hemangiopericytoma/angiosarcoma  
Pennsylvania (Drexel University College of Medicine) - Malignant solitary fibrous tumor  
Pennsylvania (Lehigh Valley Hospital) - Solitary fibrous tumor of pleura  
Pennsylvania (Mt. Nittany Medical Center) - Solitary fibrous tumor, favor malignant  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Malignant solitary fibrous tumor  
Puerto Rico (University of Puerto Rico) - Malignant solitary fibrous tumor  
Texas, Houston - Malignant vascular tumor  
Texas, Lubbock - Angiosarcoma  
Texas (Propath Associates) - Malignant hemangiopericytoma (2)  
Texas (Scott & White Memorial Hospital) - Solitary fibrous tumor  
West Virginia (Greenbrier Valley Medical Center) - Solitary fibrous tumor  
Wisconsin (Bellin Health) - Malignant solitary fibrous tumor  
Wisconsin (Meriter Hospital) - Malignant solitary fibrous tumor  
Australia (North Queensland Pathology) - Sarcoma ? metastatic/angiosarcoma?/liposarcoma ?  
Australia (Royal Prince Alfred Hospital) - Malignant solitary fibrous tumor  
Brazil (UNIFESP/EPM) - Solitary fibrous tumor, malignant (1); Solitary fibrous tumor with myxoid change (1)  
Canada (Foothills Medical Center) - Solitary fibrous tumor with features suggestive of malignancy  
Canada (Woodstock General Hospital) - Non-Hodgkin's lymphoma, lung  
Hong Kong (Hong Kong Baptist Hospital) - Malignant solitary fibrous tumor  
Netherlands, Amsterdam - Malignant solitary fibrous tumor  
Qatar - Malignant solitary fibrous tumor (4); Malignant hemangiopericytoma (4)

#### **Case 8 - Diagnosis:**

Malignant solitary fibrous tumor/hemangiopericytoma, lung  
 T-28000, M-91503

#### **Case 8 – References:**

Van de Rijn M, Lombard CM, and Rouse RV. Expression of CD34 by Solitary Fibrous Tumors of the Pleura, Mediastinum, and Lung. *Am J Surg Pathol* 1994; 18(18):814-820.  
 Hanau CA and Miettinen M. Solitary Fibrous Tumor. Histological and Immunohistochemical Spectrum of Benign and Malignant Variants Presenting at Different Sites. *Hum Pathol* 1995; 26(4):440-449.  
 de Saint Aubain SN, Rubin AP, Fletcher CD. Myxoid Solitary Fibrous Tumors. A Study of Seven Cases with Emphasis on Differential Diagnosis. *Mod Pathol* 1999; 12(5):463-467.

#### **Case No. 9, Accession No. 29650**

**January 2005**

Alameda (Alameda County Medical Center) - Primitive neuroectodermal tumor  
Baldwin Park (Kaiser Permanente) - Primitive neuroectodermal tumor/Ewing's (2); PNET (Askin tumor) (1)  
Fontana (Kaiser Permanente) - Askin tumor/primitive neuroectodermal tumor  
Glendale - Ewing's/Primitive neuroectodermal tumor  
Hayward/Fremont (St. Rose Hospital) - Primitive neuroectodermal tumor  
Irvine (University of California) - Primitive neuroectodermal tumor  
Laguna (South Coast Medical Center) - Non-Hodgkin's lymphoma  
Long Beach - Small blue cell tumor, differential including Ewing's or PNET (6)  
Monterey Park (Garfield Medical Center) - Ewing's sarcoma (small round blue cell tumor)  
Monterey Park (Monterey Peninsula Pathologists) - Desmoplastic small round cell tumor vs. primitive neuroectodermal tumor vs. ? lymphoma  
Mountain View (El Camino Pathology Group) - "Askin tumor" small cell tumor of thoraco-pulmonary origin  
Oakland (Kaiser Permanente) - Ewing's/primitive neuroectodermal tumor (5)  
Orange (Orange County Medical Group) - Primitive neuroectodermal tumor  
Sacramento (UC Davis Medical Center) - Primitive neuroectodermal tumor  
San Diego (Naval Medical Center) - Ewing's/primitive neuroectodermal tumor (Askin's tumor)

San Francisco (San Francisco General Hospital) - Ewing's sarcoma  
Santa Rosa Memorial Hospital - Primitive neuroectodermal tumor (2); Askin tumor (primitive neuroectodermal tumor) (1)  
Ventura - Mantle cell lymphoma  
Arizona (Maryvale Medical Center) - Ewing's sarcoma/primitive neuroectodermal tumor  
Arkansas (University of Arkansas Medical Center) - Ewing's sarcoma/primitive neuroectodermal tumor (2)  
Colorado, Evergreen - Mantle cell lymphoma, blastoid type  
Colorado (Lutheran Medical Center) - Ewing's sarcoma/primitive neuroectodermal tumor  
Connecticut - Primitive neuroectodermal tumor/malignant small round cell tumor of thoracopulmonary region  
Florida, Tallahassee - Primitive neuroectodermal tumor/Ewing's sarcoma  
Florida (Winter Haven Hospital) - Ewing's sarcoma (2)  
Illinois - Mantle cell lymphoma  
Indiana (Howard Community Hospital) - Synovial sarcoma  
Louisiana (Louisiana State University Medical Center) - Ewing's sarcoma vs. primitive neuroectodermal tumor  
Maryland (Johns Hopkins Hospital) - Primitive neuroectodermal tumor/Ewing's sarcoma  
Maryland (National Naval Medical Center) - Primitive neuroectodermal tumor (1); Lymphoblastic lymphoma (1); Blastic mantle cell lymphoma (1)  
Maryland (University of Maryland) - Primitive neuroectodermal tumor/Ewing's sarcoma  
Massachusetts (New England Medical Center) - Primitive neuroectodermal tumor (Askin)  
Michigan (Oakwood Hospital) - Primitive neuroectodermal  
Minnesota (Fairview Ridges Hospital) - Ewing's sarcoma/primitive neuroectodermal tumor  
Minnesota (University of Minnesota Residents) - Primitive neuroectodermal tumor  
Nebraska (Creighton University School of Medicine) - Primitive neuroectodermal tumor/Ewing's sarcoma  
Nevada (Nevada Pathology Residents) - Askin tumor (primitive neuroectodermal tumor)  
New York (Nassau University Medical Center) - Extraskelatal Ewing sarcoma (primitive neuroectodermal tumor)  
New York (Stony Brook University Hospital Residents) - Primitive neuroectodermal tumor  
New York (Westchester Medical Center) - Ewing's sarcoma/primitive neuroectodermal tumor  
North Carolina - Peripheral neuroepithelial tumor  
North Carolina (Mountain Area Pathology) - Ewing's/primitive neuroectodermal tumor (3)  
Ohio (Medical College of Ohio) - Ewing's sarcoma/primitive neuroectodermal tumor  
Ohio (McCullough Hyde Memorial Hospital) - Synovial sarcoma  
Pennsylvania (Allegheny General Hospital) - Primitive neuroectodermal tumor  
Pennsylvania (Conemaugh Memorial Medical Center) - Ewing's sarcoma/primitive neuroectodermal tumor  
Pennsylvania (Drexel University College of Medicine) - Peripheral neuroectodermal tumor  
Pennsylvania (Lehigh Valley Hospital) - Ewing's sarcoma/primitive neuroectodermal tumor  
Pennsylvania (Mt. Nittany Medical Center) - Primitive neuroectodermal tumor (PNET) of the left chest wall  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Primitive neuroectodermal tumor/Ewing's sarcoma  
Puerto Rico (University of Puerto Rico) - Primitive neuroectodermal tumor/Ewing's sarcoma  
Texas, Houston - Ewing's sarcoma  
Texas, Lubbock - Peripheral neuroectodermal tumor  
Texas (Propath Associates) - Ewing's sarcoma, metastatic (1); Ewing's (PNET) sarcoma (1)  
Texas (Scott & White Memorial Hospital) - Ewing's sarcoma  
West Virginia (Greenbrier Valley Medical Center) - Non-Hodgkin's lymphoma  
Wisconsin (Bellin Health) - Ewing's sarcoma  
Wisconsin (Meriter Hospital) - Primitive neuroectodermal tumor or Ewing's sarcoma  
Australia (North Queensland Pathology) - Primitive neuroectodermal tumor  
Australia (Royal Prince Alfred Hospital) - Ewing's sarcoma/primitive neuroectodermal tumor  
Brazil (UNIFESP/EPM) - Primitive neuroectodermal tumor (2)  
Canada (Foothills Medical Center) - Askin's tumor  
Canada (Woodstock General Hospital) - Ewing's sarcoma vs. lymphoblastic lymphoma, chest wall  
Hong Kong (Hong Kong Baptist Hospital) - Primitive neuroectodermal tumor  
Netherlands, Amsterdam - Primitive neuroectodermal tumor/Ewing's sarcoma  
Qatar - Primitive neuroectodermal tumor



### **Case 9 - Diagnosis:**

Primitive neuroectodermal tumor/Ewing's sarcoma/Askin's tumor, chest wall  
T-Y2150, M-92603

Consultation: Jeffrey L. Myers, M.D. Mayo Clinic, Rochester, MI. "Extraskkeletal Ewing's sarcoma."

### **Case 9 – References:**

Ambros IM, Ambros PF, Strekl S, et al. MIC2 is a Specific Marker for Ewing's Sarcoma and Peripheral Primitive Neuroectodermal Tumors. Evidence for a Common Histogenesis of Ewing's Sarcoma and Peripheral Primitive Neuroectodermal Tumors from MIC2 Expression and Specific Chromosome Aberration. *Cancer* 1991; 67(7):1886-1893.  
Turc-Carel C, Aurias A, Mugneret F, et al. Chromosomes in Ewing's Sarcoma I. An Evaluation of 85 Cases and Remarkable Consistency of T(11,22)(q24;q12). *Cancer Genet Cytogenet* 1988; 32(2):229-238.  
Zucman J, Melot T, Desmaze C, et al. Combinatorial Generation of Variable Fusion Proteins in Ewing Family of Tumors. *Embo J* 1993; 12(12):4481-4487.  
Lin PP, Brody RJ, Mamelin AC, et al. Differential Transactivation by Alternative EWS-FLI1 Fusion Proteins Correlates with Clinical Heterogeneity in Ewing's Sarcoma. *Cancer Res* 1999; 59(7):1428-1432.

### **Case No. 10, Accession No. 23457**

**January 2005**

Alameda (Alameda County Medical Center) - Sarcomatoid carcinoma  
Baldwin Park (Kaiser Permanente) - Sarcomatoid mesothelioma (2); Mesothelioma (1)  
Fontana (Kaiser Permanente) - Mesothelioma  
Glendale - Mesothelioma  
Hayward/Fremont (St. Rose Hospital) - Synovial sarcoma, small cell monoplasic  
Irvine (University of California) - Synovial sarcoma (1); Mesothelioma (2)  
Laguna (South Coast Medical Center) - Mesothelioma, sarcomatous (fibrous) type  
Long Beach - Spindle cell malignant neoplasm, sarcomatoid carcinoma vs. mesothelioma (6)  
Monterey Park (Garfield Medical Center) - Malignant mesothelioma  
Monterey Park (Monterey Peninsula Pathologists) - Sarcomatoid carcinoma  
Mountain View (El Camino Pathology Group) - Synovial sarcoma vs. sarcomatoid carcinoma  
Oakland (Kaiser Permanente) - Sarcomatoid carcinoma (4); Synovial sarcoma (1)  
Orange (Orange County Medical Group) - Spindle cell carcinoma  
Sacramento (UC Davis Medical Center) - Probable mesothelioma  
San Diego (Naval Medical Center) - Monophasic synovial sarcoma  
San Francisco (San Francisco General Hospital) - Synovial sarcoma  
Santa Rosa Memorial Hospital - Sarcomatoid carcinoma (2); Metastatic synovial sarcoma vs. mesothelioma vs. spindle cell carcinoma (1)  
Ventura - Spindle cell carcinoma  
Arizona (Maryvale Medical Center) - Spindle cell carcinoma  
Arkansas (University of Arkansas Medical Center) - Sarcomatoid mesothelioma (1); Spindle cell carcinoma  
Colorado, Evergreen - Synovial sarcoma, biphasic  
Colorado (Lutheran Medical Center) - Synovial sarcoma  
Connecticut - Synovial sarcoma  
Florida, Tallahassee - Spindled mesothelioma  
Florida (Winter Haven Hospital) - Pulmonary blastoma (1); Carcinosarcoma (1)  
Illinois - Sarcomatoid carcinoma  
Indiana (Howard Community Hospital) - Mesothelioma, malignant  
Louisiana (Louisiana State University Medical Center) - Compatible with spindle cell mesothelioma  
Maryland (Johns Hopkins Hospital) - Sarcomatoid carcinoma  
Maryland (National Naval Medical Center) - Spindle cell carcinoma  
Maryland (University of Maryland) - Mesothelioma, favor synovial sarcoma over mesothelioma by morphology  
Massachusetts (New England Medical Center) - Monomorphic synovial sarcoma  
Michigan (Oakwood Hospital) - Mesothelioma

Minnesota (Fairview Ridges Hospital) - Synovial sarcoma vs. intrapulmonary malignant thymoma  
Minnesota (University of Minnesota Residents) - Sarcomatoid carcinoma  
Nebraska (Creighton University School of Medicine) - Sarcomatoid carcinoma  
Nevada (Nevada Pathology Residents) - Spindle cell carcinoma  
New York (Nassau University Medical Center) - Spindle cell carcinoma  
New York (Stony Brook University Hospital Residents) - Sarcomatoid mesothelioma  
New York (Westchester Medical Center) - Spindle cell carcinoma  
North Carolina - Mesothelioma  
North Carolina (Mountain Area Pathology) - Mesothelioma (3)  
Ohio (Medical College of Ohio) - Sarcomatoid carcinoma  
Ohio (McCullough Hyde Memorial Hospital) - Sarcomatoid squamous cell carcinoma  
Pennsylvania (Allegheny General Hospital) - Synovial sarcoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Spindle cell squamous carcinoma  
Pennsylvania (Drexel University College of Medicine) - Malignant mesothelioma  
Pennsylvania (Lehigh Valley Hospital) - Poorly differentiated spindle cell carcinoma  
Pennsylvania (Mt. Nittany Medical Center) - Monophasic synovial sarcoma vs. spindle cell mesothelioma  
Pennsylvania (Pennsylvania Hospital Pathology Residents) - Sarcomatoid mesothelioma  
Puerto Rico (University of Puerto Rico) - Mesothelioma/Squamous cell carcinoma (spindle cell variant)  
Texas, Houston - Malignant mesothelioma  
Texas, Lubbock - Fibrous mesothelioma  
Texas (Propath Associates) - Mesothelioma (2)  
Texas (Scott & White Memorial Hospital) - Sarcomatoid carcinoma  
West Virginia (Greenbrier Valley Medical Center) - Sarcomatoid, malignant mesothelioma  
Wisconsin (Bellin Health) - Spindle cell carcinoma  
Wisconsin (Meriter Hospital) - Synoviosarcoma or sarcomatoid carcinoma  
Australia (North Queensland Pathology) - Spindle cell carcinoma  
Australia (Royal Prince Alfred Hospital) - Synovial sarcoma (biphasic)  
Brazil (UNIFESP/EPM) - Spindle cell carcinoma (1); Diffuse sarcomatous mesothelioma (1)  
Canada (Foothills Medical Center) - Malignant mesothelioma  
Canada (Woodstock General Hospital) - Sarcomatoid carcinoma, lung  
Hong Kong (Hong Kong Baptist Hospital) - Sarcomatoid mesothelioma  
Netherlands, Amsterdam - Synoviosarcoma  
Qatar - Sarcomatoid carcinoma (carcinosarcoma)

#### **Case 10 - Diagnosis:**

Spindle cell malignancy, most likely mesothelioma, lung  
 T-28000, M-90503

#### **Case 10 - References:**

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 Nascimento AG, Unni KK and Bernatz PE. Sarcomas of the Lung. *Mayo Clin Proc* 1982; 57(6):355-359.  
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 Glehen O and Gilly FN. Quantitative Prognostic Indicators of Peritoneal Surface Malignancy. Carcinomatosis, Sarcomatosis, and Peritoneal Mesothelioma. *Surg Oncol Clin N Am* 2003; 12(3):649-671.  
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