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CALIFORNIA  
TUMOR TISSUE REGISTRY

**“General Pathology”  
Study Cases, Subscription B**

February, 2004



California Tumor Tissue Registry  
c/o: Department of Pathology and Human Anatomy  
Loma Linda University School of Medicine  
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Web site & Case of the Month: [www.cttr.org](http://www.cttr.org)

**Target audience:**

Practicing pathologists and pathology residents.

**Goal:**

To acquaint the participant with the histologic features of a variety of benign and malignant neoplasms and tumor-like conditions.

**Objectives:**

The participant will be able to recognize morphologic features of a variety of benign and malignant neoplasms and tumor-like conditions and relate those processes to pertinent references in the medical literature.

**Educational methods and media:**

Review of representative glass slides with associated histories.  
Feedback on consensus diagnoses from participating pathologists.  
Listing of selected references from the medical literature.

**Principal faculty:**

Weldon K. Bullock, MD  
Donald R. Chase, MD

**CME Credit:**

Loma Linda University School of Medicine designates this continuing medical education activity for up to 2 hours of Category I of the Physician's Recognition Award of the American Medical Association.  
CME credit is offered for the subscription year only.

**Accreditation:**

Loma Linda University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

**Contributor: Chisa Aoyama, M.D.**  
Sylmar, CA

**Case No. 1 - February, 2004**

**Tissue from: Abdominal mass**

**Accession #28318**

**Clinical Abstract:**

A 3-year-old male presented with abdominal distension and intolerance of solid food. CT scan of the abdomen demonstrated a mesenteric cystic mass.

**Gross Pathology:**

The specimen consisted of a multiloculated cyst measuring 15 cm in diameter. The cystic wall was thin and translucent with well-outlined vascular structures. The cyst contained yellow thick fluid.

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**Contributor: Phillip C. Gordon, M.D.**  
Winter Haven, FL

**Case No. 2 - February, 2004**

**Tissue from: Thyroid**

**Accession #29000**

**Clinical Abstract:**

A neck mass was noted by this 73-year-old male. Work-up confirmed a right thyroid mass.

**Gross Pathology:**

A 25 gram, asymmetrical thyroid gland measured 8.0 x 3.5 x 3.0 cm. Within the right lobe was a hard, hemorrhagic, tan mass measuring 3.0 cm in diameter. The left lobe appeared unremarkable.

**Contributor: Xuedong Wang, M.D.**  
**Pasadena, CA**

**Case No. 3 - February, 2004**

**Tissue from: Mediastinal mass**

**Accession #29025**

**Clinical Abstract:**

During workup for recurrent melanoma, this 71-year-old, otherwise healthy man was noted to have an abnormal chest x-ray. CT scan revealed a 5.5 x 6.5 x 4.0 cm anterior mediastinal mass.

**Gross Pathology:**

The 260 gram specimen included a 152 gram, 8.2 x 7.5 x 5.5 cm encapsulated mass. Sectioning revealed pseudolobulated, pale pink, solid and homogeneous tissue. There was no gross evidence of invasion through the capsular surface.

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**Contributor: Jozef Kollin, M.D.**  
**Lakewood, CA**

**Case No. 4 - February, 2004**

**Tissue from: Right breast**

**Accession #29796**

**Clinical Abstract:**

This 73-year-old female had rock-hard breasts resulting from injections of silicone many years ago. Following changes in the nodularity of her breasts, bilateral mastectomies were performed.

**Gross Pathology:**

The right breast included underlying tissue excised to a depth of 12 cm. The nipple was retracted. The highly indurated tissue had multiple cystic spaces up to 3.0 cm in diameter containing translucent, tenacious, colorless fluid, possibly representing remnants of injected silicone. Continued sectioning revealed gritty and indurated tissue.

**Contributor: Farooq Ali, M.D.**  
Ventura, CA

**Case No. 5 - February, 2004**

**Tissue from: Hemorrhoids**

**Accession #28284**

**Clinical Abstract:**

A 29-year-old male presented to the Emergency Room with complaints of pain due to a prolapsed hemorrhoid. He did not have any prior medical or surgical history. Rectal examination showed grade IV prolapsing, nonreducible hemorrhoids with moderate pain and slight bleeding. The patient underwent an extensive hemorrhoidectomy for internal and external hemorrhoids.

**Gross Pathology:**

The specimen consisted of tissue fragments that varied from 1.0 to 3.0 cm in greatest dimension, with a firm, white, fibrotic-appearing, 0.4 cm area in one tissue fragment.

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**Contributor: Beverly Myers, M.D.**  
Sacramento, CA

**Case No. 6 - February, 2004**

**Tissue from: Uterus**

**Accession #29778**

**Clinical Abstract:**

Because of acute abdominal pain due to right ovarian torsion, this 53-year-old, gravida 3, para 3, female, with a known history of uterine fibroids, underwent a total abdominal hysterectomy and bilateral salpingo-oophorectomy.

**Gross Pathology:**

The uterus and cervix weighed 549 grams and measured 13.5 x 9.0 x 8.5 cm. Multiple leiomyomata were present, ranging from 0.5 to 8.5 cm in diameter. The largest mass had a gelatinous surface but was without areas of hemorrhage or necrosis.

**Contributor: Arno A. Roscher, M.D.**  
**Granada Hills, CA**

**Case No. 7 - February, 2004**

**Tissue from: Abdominal mass**

**Accession #28445**

**Clinical Abstract:**

A 69-year-old, gravida 5, para 5, female presented with increasing abdominal distention. Upon examination, a tender, globular, "football-size" mass was noted in the periumbilical region, interpreted as a possible strangulated hernia.

**Gross Pathology:**

The 1,424 gram specimen consisted of multiple portions of nodular soft tissue, ranging from 5.0 to 25.0 cm in greatest dimension. The largest mass had a white-tan whorling cut surface with areas of indurations and necrosis.

**Special Studies:**

Desmin	=	Positive
HHF-35	=	Positive

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**Contributor: Wafa Michael, M.D.**  
**Fontana, CA**

**Case No. 8 - February, 2004**

**Tissue from: Retroperitoneal mass**

**Accession #28389**

**Clinical Abstract:**

A 50-year-old male noticed a "rock-hard" mass in his lower abdomen, which was accompanied by pain. CT scan revealed a large retroperitoneal mass with several satellite masses.

**Gross Pathology:**

The specimen consisted of multiple irregular fragments of friable, hemorrhagic tumor tissue, the largest piece measuring 30 x 25 x 14 cm. The cut surface was solid with areas of hemorrhage and cystic change. A portion of the tumor was attached to the omentum.

**Special Studies:**

Actin	=	Negative
Desmin	=	Negative
PAS	=	Negative
S-100 Protein	=	Negative
Cytokeratin	=	Negative

**Contributor: LLUMC Pathology Group (np)**  
**Loma Linda, CA**

**Case No. 9 - February, 2004**

**Tissue from: Sacral mass**

**Accession #29785**

**Clinical Abstract:**

A 62-year-old male with a previous history of prostate cancer presented with complete urinary and bowel incontinence. During work-up, a 4 x 10 cm mass was identified in the sacral canal. Patient underwent en block resection of sacral tissues.

**Gross Pathology:**

The 260 gram specimen included a 7.0 x 3.0 x 3.0 cm encapsulated mass of pink-tan to white-tan soft tissue.

**Special Studies:**

CAM 5.2 = Strongly positive

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**Contributor: LLUMC Pathology Group (ec)**  
**Loma Linda, CA**

**Case No. 10 - February, 2004**

**Tissue from: Left chest wall**

**Accession #29740**

**Clinical Abstract:**

A 45-year-old male noticed a painful mass in his left back, which was rapidly increasing in size. Five years previously, he had undergone surgery in the same area for removal of a lump, followed by proton therapy. MRI of the chest showed the current lesion to be a 1.5 x 6.6 x 10 cm inhomogeneous soft tissue mass located between the left scapula and posterior chest wall, and the left paraspinous muscles. A composite resection was performed.

**Gross Pathology:**

The 834 gram, 20.5 x 17.2 x 5.0 cm composite resection of the left posterior chest wall, included portions of four ribs and a portion of medial scapula. Within the center of the specimen was a 9.0 x 8.7 x 2.9 cm firm mass with a generally homogeneous, white-tan cut surface and a central band of necrosis. Gross hemorrhage was not seen. The mass appeared to contact the ribs on the deep portion of the specimen.



CALIFORNIA  
TUMOR TISSUE REGISTRY

“GENERAL PATHOLOGY”

Minutes – Subscription B

February, 2004



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

Metastatic Potential of Dermatofibrosarcoma Protuberans With Fibrosarcomatous Change. Minter RM, Reith JD, Hochwald SN. *J Surg Oncol*, 2003; 82:201-8.

National Comprehensive Cancer Network Guidelines For the Management of Prostate Cancer. Scherr D, Swindle PW, Scardino PT. *Urology*, 2003 Feb; 61(Supplement 2A):14-24.

Current Management of Melanoma: Benefits of Surgical Staging and Adjuvant Therapy. McMasters KM, Swetter SM. *J Surg Oncol*, 2003; 82:209-16.

Detection and Isolation of Prostate Cancer Cells From Peripheral Blood and Bone Marrow. Ellis WJ, Pfitzenmaier J, Colli J, et al. *Urology*, 2003; 61(2):277-281.

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## FILE DIAGNOSES

CTTR Subscription B

February, 2004

**Case 1:**

Cystic lymphangioma ("mesenteric cyst"), abdomen  
T-Y4100, M-91730

**Case 2:**

Papillary carcinoma of the thyroid  
T-96000, M-80503

**Case 3:**

Thymoma, mediastinum  
T-Y2300, M-85800

**Case 4:**

Duct carcinoma of breast with associated silicone mastopathy  
T-04000, M-85003

**Case 5:**

Thrombosed hemorrhoids with partial organization (papillary endothelial hyperplasia)  
T-61980, M-32624

**Case 6:**

Myxoid leiomyoma, uterus  
T-82000, M-88900

**Case 7:**

Leiomyosarcoma, abdomen  
T-Y4100, M-88903

**Case 8:**

High grade spindle cell sarcoma NOS, retroperitoneum  
T-Y4600, M-88013

**Case 9:**

Chordoma, sacrum  
T-10800, M-93703

**Case 10:**

High grade chondrosarcoma, chest wall  
T-Y2150, M-92203

Glendale (Glendale Pathology Association) - Lymphangioma  
Granada Hills - Mesenteric cyst  
Orange (UCI Medical Center Residents) - Multilocular peritoneal inclusion cyst vs. lymphangioma  
San Fernando (K-R San Fernando Valley Group) - Mesenteric cyst, simple, benign (1); Simple mesenteric cyst (1)  
San Francisco (San Francisco General Hospital) - Lymphangioma  
Arizona (Phoenix Memorial Hospital) - Benign multiloculated mesothelial cyst  
Arkansas (University of Arkansas Medical Center) - Lymphangioma, mesentery  
Colorado, Denver - Lymphangioma  
Florida (Winter Haven Hospital) - Mesenteric cyst  
Georgia, Decatur - Lymphangioma  
Illinois (Heartland Regional Medical Center) - Cystic lymphangioma  
Kansas (Coffeyville Regional Medical Center) - Lymphangioma (cystic hygroma), mesentery  
Kansas (Kansas University Medical Center) - Intra-abdominal lymphangioma  
Kansas, Manhattan - Cystic lymphangioma  
Kentucky (University of Louisville Hospital) - Intra-abdominal lymphangioma vs. lymphocle  
Louisiana (LSUHSC Shreveport) - Benign multicystic mesothelioma  
Louisiana, Metairie - Lymphangioma  
Maryland (Johns Hopkins Medical Center) - Lymphangioma  
Maryland (National Naval Medical Center) - Lymphangioma  
New York (Nassau University Medical Center) - Multilocular peritoneal inclusion cyst  
New York (New York Presbyterian - Cornell Residents) - Cystic hygroma  
Ohio, Columbus - Lymphangioma  
Pennsylvania (Allegheny General Hospital) - Lymphangiomatosis  
Pennsylvania (Drexel University College of Medicine) - Cystic lymphangioma  
Pennsylvania (Memorial Medical Center) - Cystic lymphangioma  
Pennsylvania (UPMC/Shadyside) - Lymphangioma  
Texas (Scott & White Hospital) - Lymphangioma  
Texas, Lubbock - Benign epithelial inclusion cyst  
Texas, San Antonio - Lymphangioma  
Washington, D.C. - Cystic lymphangioma  
Canada (University of Calgary, Foothills Hospital) - Multilocular cystic lymphangioma  
China (Sir Run Run Shaw Hospital) - Lymphangioma  
Italy, Naples - Lymphangioma  
Japan (Hamamatsu University School of Medicine) - Cavernous lymphangioma  
Japan, Chiba - Multilocular peritoneal inclusion cyst of mesentery  
Qatar, Doha - Lymphangioma  
Saudi Arabia, Al Hassa - Cystic lymphangioma  
Spain (Povisa) - Cystic lymphangioma  
The Netherlands, Amstelveen - Abdominal lymphangioma

**Case 1 - Diagnosis:**

Cystic lymphangioma ("mesenteric cyst"), abdomen  
T-Y4100, M-91730

**Case 1 - References:**

- Bliss DP Jr, Coffin CM, Bower RJ, et al: Mesenteric Cysts in Children. *Surgery*, 1994 May; 115(5):571-7.
- Ros PR, Olmsted WW, Moser RP Jr, et al: Mesenteric and Omental Cysts: Histologic Classification With Imaging Correlation. *Radiology*, 1987 Aug; 164(2):327-32.
- De Perrot M, Brundler M, Totsch M, et al: Mesenteric Cysts: Towards Less Confusion? *Dig Surg*, 2000; 17(4):323-8. Review.
- Tsilada J, Talapro L, Osjogirp S, et al. Giant Cystic Lymphangioma of the Small Bowel Mesentery. Report of a Case. *Surg Today* 2002; 32(8):734-737.
- Kim BS, Sbar AD and Jatoi I. Intra-abdominal Cystic Lymphangioma. *Surg* 2000; 128(5):834-835.
- Mabrut JY, Grandjean JP, Henry L, Chappuis JP, et al. Mesenteric and Mesocolic Cystic Lymphangiomas. Diagnostic and Therapeutic Management. *Ann Chir (France)* 2002; 127(5):343-349.

Glendale (Glendale Pathology Association) - Papillary carcinoma of thyroid, sclerosing type

Granada Hills - Papillary carcinoma  
Orange (UCI Medical Center Residents) - Papillary carcinoma with focal tall cell features  
San Fernando (K-R San Fernando Valley Group) - Papillary carcinoma, thyroid, high grade (1); papillary carcinoma, high grade (1)  
San Francisco (San Francisco General Hospital) - Papillary thyroid carcinoma  
Arizona (Phoenix Memorial Hospital) - Papillary carcinoma, tall cell variant  
Arkansas (University of Arkansas Medical Center) - Tall cell variant papillary carcinoma, thyroid  
Colorado, Denver - Papillary carcinoma  
Florida (Winter Haven Hospital) - Diffusely invasive papillary carcinoma  
Georgia, Decatur - Papillary carcinoma of thyroid, tall cell variant  
Illinois (Heartland Regional Medical Center) - Papillary carcinoma, tall cell variant  
Kansas (Coffeyville Regional Medical Center) - Papillary carcinoma (tall cell variant), thyroid gland  
Kansas (Kansas University Medical Center) - Papillary thyroid carcinoma  
Kansas, Manhattan - Papillary carcinoma  
Kentucky (University of Louisville Hospital) - Papillary carcinoma with nodular fasciitis variant vs. papillary carcinoma with previous FNA site  
Louisiana (LSUHSC Shreveport) - Papillary thyroid carcinoma  
Louisiana, Metairie - Papillary carcinoma (tall cell variant)  
Maryland (Johns Hopkins Medical Center) - Papillary thyroid carcinoma, tall cell  
Maryland (National Naval Medical Center) - Papillary thyroid carcinoma  
New York (Nassau University Medical Center) - Papillary carcinoma  
New York (New York Presbyterian - Cornell Residents) - Papillary thyroid carcinoma, tall cell variant  
Ohio, Columbus - Carcinoma  
Pennsylvania (Allegheny General Hospital) - Papillary carcinoma  
Pennsylvania (Drexel University College of Medicine) - Papillary carcinoma of thyroid, tall cell variant  
Pennsylvania (Memorial Medical Center) - Papillary carcinoma, columnar variant  
Pennsylvania (UPMC/Shadyside) - Well-differentiated carcinoma, not otherwise specified  
Texas (Scott & White Hospital) - Papillary carcinoma  
Texas, Lubbock - Papillary carcinoma, tall columnar cell variant  
Texas, San Antonio - Papillary thyroid carcinoma  
Washington, D.C. - Papillary carcinoma, tall cell variant  
Canada (University of Calgary, Foothills Hospital) - Papillary carcinoma of thyroid, tall cell variant  
China (Sir Run Run Shaw Hospital) - Thyroid papillary carcinoma  
Italy, Naples - Papillary thyroid carcinoma, tall cell variant  
Japan (Hamamatsu University School of Medicine) - Papillary carcinoma with focal anaplastic portion  
Japan, Chiba - Papillary carcinoma of thyroid gland, tall and columnar type cell variant  
Qatar, Doha - Papillary carcinoma, thyroid (columnar cell variant)  
Saudi Arabia, Al Hassa - Papillary thyroid carcinoma, tall cell variant  
Spain (Povisa) - Papillary carcinoma, columnar cell variant  
The Netherlands, Amstelveen - Papillary carcinoma of the thyroid

#### **Case 2 - Diagnosis:**

Papillary carcinoma of the thyroid  
 T-96000, M-80503

#### **Case 2 - References:**

- Hundahl SA, Cady B, Cunningham MP, et al: Initial Results From a Prospective Cohort Study of 5583 Cases of Thyroid Carcinoma Treated in the United States During 1996. U.S. and German Thyroid Cancer Study Group. An American College of Surgeons Commission on Cancer Patient Care Evaluation Study. *Cancer*, 2000 Jul 1; 89(1):202-17.  
 Akslen LA, LiVolsi VA: Prognostic Significance of Histologic Grading Compared With Subclassification of Papillary Thyroid Carcinoma. *Cancer*, 2000 Apr 15; 88(8):1902-8.  
 Grigsby PW, Baglan K, Siegel BA: Surveillance of Patients to Detect Recurrent Thyroid Carcinoma. *Cancer*, 1999 Feb 15; 85(4):945-51.  
 Farahati J, Demidchik EP FP, Biko J, Reiners C: Inverse Association Between Age At the Time of Radiation Exposure and Extent Of Disease in Cases of Radiation-Induced Childhood Carcinoma. *Cancer*, 2000 Mar 15; 88(6):1470-6.  
 Mazzaferri EL, Jhiang SM: Long-Term Impact of Initial Surgical and Medical Therapy on Papillary and Follicular Thyroid Cancer. *Am J Med*, 1994 Nov; 97(15):418-28.

**Case No. 3, Accession No. 29025**

**February, 2004**

Glendale (Glendale Pathology Association) - Lymphocyte-rich thymoma

Granada Hills - Burkitt's lymphoma, small non-cleaved cell lymphoma  
Orange (UCI Medical Center Residents) - Thymoma  
San Fernando (K-R San Fernando Valley Group) - Thymoma, probably benign (1); thymoma (1)  
San Francisco (San Francisco General Hospital) - Thymoma  
Arizona (Phoenix Memorial Hospital) - Follicular dendritic cell sarcoma/tumor  
Arkansas (University of Arkansas Medical Center) - Thymoma  
Colorado, Denver - Thymoma  
Florida (Winter Haven Hospital) - Thymoma  
Georgia, Decatur - Thymoma, lymphocyte predominant  
Illinois (Heartland Regional Medical Center) - Thymoma, lymphocytic predominant  
Kansas (Coffeyville Regional Medical Center) - Thymoma (lymphocyte predominant with starry sky appearance)  
Kansas (Kansas University Medical Center) - Thymoma  
Kansas, Manhattan - Thymoma, encapsulated  
Kentucky (University of Louisville Hospital) - Benign thymoma, lymphocyte predominant  
Louisiana (LSUHSC Shreveport) - Thymoma  
Louisiana, Metairie - Thymoma (type A)  
Maryland (Johns Hopkins Medical Center) - Thymoma  
Maryland (National Naval Medical Center) - Thymoma, mixed  
New York (Nassau University Medical Center) - Thymoma  
New York (New York Presbyterian - Cornell Residents) - Thymoma  
Ohio, Columbus - Thymoma  
Pennsylvania (Allegheny General Hospital) - Lymphocytic thymoma  
Pennsylvania (Drexel University College of Medicine) - Malignant thymoma  
Pennsylvania (Memorial Medical Center) - Lymphoma  
Pennsylvania (UPMC/Shadyside) - Thymoma, lymphocyte predominant  
Texas (Scott & White Hospital) - Thymoma  
Texas, Lubbock - Thymoma  
Texas, San Antonio - Thymoma  
Washington, D.C. - Malignant lymphoma, small cell, diffuse  
Canada (University of Calgary, Foothills Hospital) - Type B1 thymoma  
China (Sir Run Run Shaw Hospital) - Type B2 thymoma  
Italy, Naples - Thymoma (mixed lymphocytic and epithelial)  
Japan (Hamamatsu University School of Medicine) - Thymoma, type B1  
Japan, Chiba - Thymoma, mixed lymphocytic and epithelial type  
Qatar, Doha - Thymoma  
Saudi Arabia, Al Hassa - Thymoma  
Spain (Povisa) - Lymphocyte predominant thymoma  
The Netherlands, Amstelveen - Type B/AB thymoma of the mediastinum

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

Thymoma, mediastinum  
 T-Y2300, M-85800

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

- Chhieng DC, Rose D, Ludwig Me, Zabowski MF: Cytology of Thymomas: Emphasis on Morphology and Correlation With Histologic Subtypes. *Cancer*, 2000 Feb 25; 90(1):24-32.  
 Pescarmona E, Rendina EA, Venuta F, et al: The Prognostic Implications of Thymoma Histologic Subtyping: A Study of 80 Consecutive Cases. *Am J Clin Pathol*, 1990 Feb; 93(2):193-5.  
 Ogawa K, Uno T, Toita T, et al. Postoperative Radiotherapy for Patients with Completely Resected Thymoma. A Multi-Institutional, Retrospective Review of 103 Patients. *Cancer* 2002; 94(5):1405-1413.  
 Haniuda M, Kondo R, Numanami H, et al. Recurrence of Thymoma. Clinicopathological features, Re-Operation, and Outcome. *J Surg Oncol* 2001; 183-188.

### **Case No. 4, Accession No. 29796**

**February, 2004**

Glendale (Glendale Pathology Association) - Infiltrating ductal carcinoma with Paget's disease of nipple  
Granada Hills - Fatty necrosis with foreign body giant cell reaction  
Orange (UCI Medical Center Residents) - Infiltrating ductal carcinoma  
San Fernando (K-R San Fernando Valley Group) - Invasive duct carcinoma, possibly medullary, plus silicone granuloma (1);  
 invasive duct carcinoma + silicone granuloma (1)

San Francisco (San Francisco General Hospital) - Ductal carcinoma and silicone  
Arizona (Phoenix Memorial Hospital) - Invasive apocrine carcinoma  
Arkansas (University of Arkansas Medical Center) - Mammary duct cell carcinoma, NOS; silicone granulomatosis  
Colorado, Denver - Invasive ductal carcinoma  
Florida (Winter Haven Hospital) - Invasive ductal carcinoma with silicone background  
Georgia, Decatur - Infiltrating ductal carcinoma  
Illinois (Heartland Regional Medical Center) - Apocrine carcinoma; silicone mastopathy  
Kansas (Coffeyville Regional Medical Center) - Apocrine papillary carcinoma, breast; silicone granuloma  
Kansas (Kansas University Medical Center) - Apocrine breast carcinoma  
Kansas, Manhattan - Invasive ductal adenocarcinoma, apocrine type  
Kentucky (University of Louisville Hospital) - Apocrine carcinoma  
Louisiana (LSUHSC Shreveport) - Infiltrating ductal carcinoma with apocrine features, silicone reaction  
Louisiana, Metairie - Invasive duct carcinoma. Silicone granuloma.  
Maryland (Johns Hopkins Medical Center) - Ductal carcinoma  
Maryland (National Naval Medical Center) - Apocrine carcinoma, silicone granulomatosis  
New York (Nassau University Medical Center) - Infiltrating ductal carcinoma  
New York (New York Presbyterian - Cornell Residents) - Infiltrating duct carcinoma, silicone  
Ohio, Columbus - Adenocarcinoma, silicone reaction  
Pennsylvania (Allegheny General Hospital) - Invasive ductal carcinoma  
Pennsylvania (Drexel University College of Medicine) - Invasive ductal carcinoma of breast, apocrine type  
Pennsylvania (Memorial Medical Center) - Infiltrating duct carcinoma with silicone granuloma  
Pennsylvania (UPMC/Shadyside) - Invasive ductal carcinoma with apocrine features and background silicone  
Texas (Scott & White Hospital) - High grade invasive duct carcinoma  
Texas, Lubbock - Apocrine carcinoma  
Texas, San Antonio - Invasive ductal carcinoma  
Washington, D.C. - Apocrine carcinoma with Paget's disease  
Canada (University of Calgary, Foothills Hospital) - Infiltrating duct carcinoma in a background of silicone mastopathy  
China (Sir Run Run Shaw Hospital) - Adenocarcinoma  
Italy, Naples - Apocrine ductal carcinoma arising in association with silicone reaction  
Japan (Hamamatsu University School of Medicine) - Apocrine carcinoma  
Japan, Chiba - Invasive apocrine carcinoma of right breast  
Qatar, Doha - Mammary carcinoma of ductal type  
Saudi Arabia, Al Hassa - Invasive ductal carcinoma  
Spain (Povisa) - Apocrine carcinoma  
The Netherlands, Amstelveen - Infiltrating ductal carcinoma, fat necrosis, and reactive changes caused by silicone injection

#### **Case 4 - Diagnosis:**

Duct carcinoma of breast with associated silicone mastopathy  
T-04000, M-85003

#### **Case 4 - References:**

Peng HL, Wu CC, Choi WM, et al. Breast Cancer Detection using Magnetic Resonance Imaging in Breasts Injected with Liquid Silicone. *Plast Reconstr Surg* 1999;104(7):2116-2120.  
 van Diest PJ, Beekman WH and Hage JJ. Pathology of Silicone Leakage from Breast Implants. *J Clin Pathol* 1998; 51(7):493-497.  
 Holmich LR, Friis S, Fryzek JP, et al. Incidence of Silicone Breast Implant Rupture. *Arch Surg* 2003; 138(7):801-806.

#### **Case No. 5, Accession No. 28284**

**February, 2004**

Glendale (Glendale Pathology Association) - Organizing thrombosed hemorrhoids  
Granada Hills - Kaposi's sarcoma  
Orange (UCI Medical Center Residents) - Kaposi's sarcoma  
San Fernando (K-R San Fernando Valley Group) - Hemangiosarcoma (Kaposi); hemorrhoids (1); External & internal hemorrhoids, sclerosing angioma (1)  
San Francisco (San Francisco General Hospital) - Kaposi's sarcoma  
Arizona (Phoenix Memorial Hospital) - Kaposi's sarcoma  
Arkansas (University of Arkansas Medical Center) - Thrombosed hemorrhoids, partially recanalized  
Colorado, Denver - Kaposi's sarcoma  
Florida (Winter Haven Hospital) - Thrombosed hemorrhoids  
Georgia, Decatur - Thrombosis with organization (intravascular fasciitis)  
Illinois (Heartland Regional Medical Center) - Hemorrhoids with thrombosis and organization

Kansas (Coffeyville Regional Medical Center) - Angiosarcoma, hemorrhoids  
Kansas (Kansas University Medical Center) - Kaposi's sarcoma + hemorrhoids  
Kansas, Manhattan - Thrombosed hemorrhoids with recanalization (Masson's lesion)  
Kentucky (University of Louisville Hospital) - Low grade angiosarcoma vs. intravascular papillary endothelial hyperplasia  
Louisiana (LSUHSC Shreveport) - Organizing thrombi  
Louisiana, Metairie - Hemorrhoid, Neurofibroma.  
Maryland (Johns Hopkins Medical Center) - Angiosarcoma  
Maryland (National Naval Medical Center) - Kaposi's sarcoma  
New York (Nassau University Medical Center) - Masson's tumor (thrombosed hemorrhoid)  
New York (New York Presbyterian - Cornell Residents) - Masson's lesion  
Ohio, Columbus - Hemorrhoids with organizing thrombi  
Pennsylvania (Allegheny General Hospital) - Kaposi's sarcoma  
Pennsylvania (Drexel University College of Medicine) - Malignant hemangioendothelioma  
Pennsylvania (Memorial Medical Center) - Anal condyloma, angiosarcoma/Kaposi's sarcoma  
Pennsylvania (UPMC/Shadyside) - Hemorrhoids with organizing thrombi  
Texas (Scott & White Hospital) - Thrombosed hemorrhoids (DDX Kaposi's sarcoma)  
Texas, Lubbock - Kaposi sarcoma  
Texas, San Antonio - Thrombosed hemorrhoid  
Washington, D.C. - Hemorrhoids, thrombosed  
Canada (University of Calgary, Foothills Hospital) - Thrombosed hemorrhoids  
China (Sir Run Run Shaw Hospital) - Mixed hemorrhoid, with organization of thrombus  
Italy, Naples - Intravascular angiomas (Papillary endothelial hyperplasia)  
Japan (Hamamatsu University School of Medicine) - Hemorrhoids with intravascular papillary endothelial hyperplasia  
Japan, Chiba - Hemorrhoids with intravascular organizing thrombi  
Qatar, Doha - Organizing thrombus with florid fibroblastic and endothelial proliferation (Masson's hemangioma)  
Saudi Arabia, Al Hassa - Thrombosed piles  
Spain (Povisa) - Intimal sarcoma  
The Netherlands, Amstelveen - Hemorrhoid vessels with thrombosis and fibroblastic proliferation

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

Thrombosed hemorrhoids with partial organization (papillary endothelial hyperplasia)  
 T-61980, M-32624

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

Alicino MR, Kaneko M, Unger PD: Excessive Endothelial Cell Proliferation Occurring in an Organizing Thyroid Hematoma: Report of a Case and Review of the Literature. *Endocr Pathol*, 1995 Summer, 6(2): 153-158.  
 Yamamoto T, Marui T, Mizuno K: Recurrent Intravascular Papillary Endothelial Hyperplasia of the Toes. *Dermatology*, 2000; 200(1):72-4.  
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#### **Case No. 6, Accession No. 29778**

**February, 2004**

Glendale (Glendale Pathology Association) - Epithelioid leiomyoma  
Granada Hills - Myxoid leiomyosarcoma  
Orange (UCI Medical Center Residents) - Myxoid leiomyoma of uncertain malignant potential  
San Fernando (K-R San Fernando Valley Group) - Myxoid, sometimes "cellular" leiomyoma (1); Myxoid leiomyoma (1)  
San Francisco (San Francisco General Hospital) - Massive edema of uterus  
Arizona (Phoenix Memorial Hospital) - Myxoid leiomyosarcoma  
Arkansas (University of Arkansas Medical Center) - Myxoid leiomyoma  
Colorado, Denver - Liposarcoma  
Florida (Winter Haven Hospital) - Leiomyoma with degenerative changes  
Georgia, Decatur - Massive edema of ovary  
Illinois (Heartland Regional Medical Center) - Myxoid leiomyosarcoma  
Kansas (Coffeyville Regional Medical Center) - Myxoid leiomyosarcoma, uterus  
Kansas (Kansas University Medical Center) - Leiomyoma  
Kansas, Manhattan - Myxoid liposarcoma

Kentucky (University of Louisville Hospital) - Myxoid leiomyoma vs. myxoid leiomyosarcoma  
Louisiana (LSUHSC Shreveport) - Myxoid smooth muscle tumor, probably myxoid leiomyoma  
Louisiana, Metairie - Leiomyoma with massive hydropic degeneration  
Maryland (Johns Hopkins Medical Center) - Leiomyoma  
Maryland (National Naval Medical Center) - Leiomyoma, myxoid  
New York (Nassau University Medical Center) - Myxoid leiomyosarcoma  
New York (New York Presbyterian - Cornell Residents) - Myxoid leiomyoma  
Ohio, Columbus - Myxoid smooth muscle tumor  
Pennsylvania (Allegheny General Hospital) - Myxoid leiomyoma  
Pennsylvania (Drexel University College of Medicine) - Leiomyosarcoma, myxoid type  
Pennsylvania (Memorial Medical Center) - Myxoid leiomyoma, leiomyosarcoma  
Pennsylvania (UPMC/Shadyside) - Myxoid leiomyoma  
Texas (Scott & White Hospital) - Leiomyoma with myxoid degeneration  
Texas, Lubbock - Epithelioid leiomyoma  
Texas, San Antonio - Myxoid LMS (leiomyosarcoma)  
Washington, D.C. - Stromal nodule  
Canada (University of Calgary, Foothills Hospital) - Myxoid leiomyoma  
China (Sir Run Run Shaw Hospital) - Leiomyoma with mucinous degeneration  
Italy, Naples - Myxoid smooth muscle tumor of uncertain malignant potential  
Japan (Hamamatsu University School of Medicine) - Myxoid leiomyosarcoma  
Japan, Chiba - Myxoid leiomyoma of uterus  
Qatar, Doha - Leiomyoma with myxoid stroma  
Saudi Arabia, Al Hassa - Leiomyoma with myxoid changes  
Spain (Povisa) - Leiomyoblastoma  
The Netherlands, Amstelveen - Edematous leiomyoma

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

Myxoid leiomyoma, uterus  
T-82000, M-88900

Consultation: Richard Kempson, M.D., Stanford University: "Myxoid leiomyoma."

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

Hendrickson MR, Kempson RL: *Surgical Pathology of the Uterine Corpus*. Philadelphia. W.B. Saunders, 1980, pp 473-484.  
Clement PB, Young RH, Scully RE: Diffuse, Perinodular, and other Patterns of Hydropic Degeneration Within and Adjacent to Uterine Leiomyomas. Problems in Differential Diagnosis. *Am J Surg Pathol*, 1992 Jan; 16(1):26-32.  
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#### **Case No. 7, Accession No. 28445**

**February, 2004**

Glendale (Glendale Pathology Association) - Leiomyosarcoma  
Granada Hills - Pleomorphic rhabdomyosarcoma  
Orange (UCI Medical Center Residents) - Leiomyosarcoma  
San Fernando (K-R San Fernando Valley Group) - Leiomyosarcoma (2)  
San Francisco (San Francisco General Hospital) - Leiomyosarcoma versus rhabdomyosarcoma  
Arizona (Phoenix Memorial Hospital) - Leiomyosarcoma, high grade  
Arkansas (University of Arkansas Medical Center) - Leiomyosarcoma  
Colorado, Denver - Leiomyosarcoma  
Florida (Winter Haven Hospital) - Leiomyosarcoma  
Georgia, Decatur - Leiomyosarcoma  
Illinois (Heartland Regional Medical Center) - Leiomyosarcoma  
Kansas (Coffeyville Regional Medical Center) - Leiomyosarcoma, abdomen  
Kansas (Kansas University Medical Center) - Leiomyosarcoma  
Kansas, Manhattan - Leiomyosarcoma  
Kentucky (University of Louisville Hospital) - Leiomyosarcoma  
Louisiana (LSUHSC Shreveport) - Leiomyosarcoma  
Louisiana, Metairie - Leiomyosarcoma  
Maryland (Johns Hopkins Medical Center) - Leiomyosarcoma  
Maryland (National Naval Medical Center) - Leiomyosarcoma

New York (Nassau University Medical Center) - Leiomyosarcoma  
New York (New York Presbyterian - Cornell Residents) - Leiomyosarcoma  
Ohio, Columbus - Leiomyosarcoma  
Pennsylvania (Allegheny General Hospital) - Leiomyosarcoma  
Pennsylvania (Drexel University College of Medicine) - Leiomyosarcoma  
Pennsylvania (Memorial Medical Center) - Leiomyosarcoma  
Pennsylvania (UPMC/Shadyside) - Leiomyosarcoma  
Texas (Scott & White Hospital) - Leiomyosarcoma  
Texas, Lubbock - Leiomyosarcoma  
Texas, San Antonio - LMS (leiomyosarcoma)  
Washington, D.C. - Leiomyosarcoma  
Canada (University of Calgary, Foothills Hospital) - Leiomyosarcoma  
China (Sir Run Run Shaw Hospital) - Leiomyosarcoma  
Italy, Naples - Leiomyosarcoma  
Japan (Hamamatsu University School of Medicine) - Leiomyosarcoma  
Japan, Chiba - Leiomyosarcoma of abdomen  
Qatar, Doha - Leiomyosarcoma, low grade  
Saudi Arabia, Al Hassa - Leiomyosarcoma  
Spain (Povisa) - Leiomyosarcoma  
The Netherlands, Amstelveen - Leiomyosarcoma

**Case 7 - Diagnosis:**

Leiomyosarcoma, abdomen  
 T-Y4100, M-88903

**Case 7 - References:**

Kurugoglu S, Ogut G, Mihmanli I, et al: Abdominal Leiomyosarcomas: Radiologic Appearances At Various Locations. *Eur Radiol*, 2002 Dec; 12(12):2933-42.  
 Granmayeh M, Jonsson K, McFarland W, Wallace S: Angiography of Abdominal Leiomyosarcoma: *AJR. Am J Roentgenol*, 1978 Apr; 130(4):725-30.  
 Clary BM, DeMatteo RP, Lewis JJ, et al: Gastrointestinal Stromal Tumors and Leiomyosarcoma of the Abdomen and Retroperitoneum: A Clinical Comparison. *Ann Surg Onc*, 2001 May; 8(4):290-9.  
 Bowers BA, Watters CR, Szpak CA, Meyers WC: Abdominal Leiomyosarcoma: Aggressive Management. *South Med J*, 1989 Mar; 82(3):313-7.

**Case No. 8, Accession No. 28389**

**February, 2004**

Glendale (Glendale Pathology Association) - Extra-intestinal GIST  
Granada Hills - Fibrosarcoma  
Orange (UCI Medical Center Residents) - Malignant extra-gastrointestinal stromal tumor, epithelioid type  
San Fernando (K-R San Fernando Valley Group) - Liposarcoma (1); Round cell liposarcoma (1)  
San Francisco (San Francisco General Hospital) - Liposarcoma, mixed  
Arizona (Phoenix Memorial Hospital) - Angiosarcoma  
Arkansas (University of Arkansas Medical Center) - Sarcoma (favor leiomyosarcoma)  
Colorado, Denver - Undifferentiated sarcoma  
Florida (Winter Haven Hospital) - Malignant paraganglioma  
Georgia, Decatur - Gastrointestinal stromal tumor  
Illinois (Heartland Regional Medical Center) - Spindle cell sarcoma, favor fibrosarcoma  
Kansas (Coffeyville Regional Medical Center) - Sarcoma - MFH? Clear cell?, retroperitoneal mass  
Kansas (Kansas University Medical Center) - Leiomyosarcoma  
Kansas, Manhattan - GIST (gastrointestinal stromal tumor)  
Kentucky (University of Louisville Hospital) - Liposarcoma  
Louisiana (LSUHSC Shreveport) - Malignant spindle cell neoplasm - possibly GIST versus malignant fibrous histiocytoma  
Louisiana, Metairie - Hemangiopericytoma  
Maryland (Johns Hopkins Medical Center) - Epithelioid MPNST (malignant peripheral nerve sheath tumor)  
Maryland (National Naval Medical Center) - Gastrointestinal stromal tumor, malignant  
New York (Nassau University Medical Center) - Dedifferentiated/Pleomorphic liposarcoma  
New York (New York Presbyterian - Cornell Residents) - Malignant GIST vs. paraganglioma  
Ohio, Columbus - Spindle cell sarcoma  
Pennsylvania (Allegheny General Hospital) - High grade sarcoma, dedifferentiated liposarcoma

Pennsylvania (Drexel University College of Medicine) - Malignant hemangiopericytoma  
Pennsylvania (Memorial Medical Center) - Dedifferentiated liposarcoma  
Pennsylvania (UPMC/Shadyside) - Malignant retroperitoneal paraganglioma  
Texas (Scott & White Hospital) - High grade spindle cell sarcoma (favor MPNST)  
Texas, Lubbock - Liposarcoma  
Texas, San Antonio - GIST (gastrointestinal stromal tumor)  
Washington, D.C. - Myxoid MFH (malignant fibrous histiocytoma)  
Canada (University of Calgary, Foothills Hospital) - Liposarcoma  
China (Sir Run Run Shaw Hospital) - Solitary fibrous tumor  
Japan (Hamamatsu University School of Medicine) - GIST (gastrointestinal stromal tumor)  
Japan, Chiba - Synovial sarcoma  
Qatar, Doha - Undifferentiated sarcoma, probably a dedifferentiated liposarcoma (2); Malignant GIST with epithelioid differentiation (2)  
Saudi Arabia, Al Hassa - High grade sarcoma  
Spain (Povisa) - Sarcoma  
The Netherlands, Amstelveen - Sarcoma, N.O.S. (liposarcoma?)

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

High grade spindle cell sarcoma (NOS), retroperitoneum  
 T-Y4600, M-88013

#### **Case 8 - References:**

Bradley JC, Caplan R: Giant Retroperitoneal Sarcoma: A Case Report and Review of the Management of Retroperitoneal Sarcomas. *Am Surg*, 2002 Jan; 68(1):52-6. Review.  
 McGrath PC, Neifeld JP, Lawrence W Jr, et al: Improved Survival Following Complete Excision of Retroperitoneal Sarcomas. *Ann Surg*, 1984 Aug; 200(2):200-4.  
 Bautista N, Su W, O'Connell TX: Retroperitoneal Soft Tissue Sarcomas: Prognosis and Treatment of Primary and Recurrent Disease. *Am Surg*, 2000 Sep; 66(9):832-6.  
 Malerba M, Doglietto GB, Pacelli F, et al: Primary Retroperitoneal Soft Tissue Sarcomas: Results of Aggressive Surgical Treatment. *World J Surg*, 1999 Jul; 23(7):670-5.

#### **Case No. 9, Accession No. 29785**

**February, 2004**

Glendale (Glendale Pathology Association) - Chordoma  
Granada Hills - Chordoma  
Orange (UCI Medical Center Residents) - Chondroid chordoma  
San Fernando (K-R San Fernando Valley Group) - Chondroid invasion by ? prostatic cancer ? (1); Metastatic carcinoma (i.e. prostate) (1)  
San Francisco (San Francisco General Hospital) - Chordoma  
Arizona (Phoenix Memorial Hospital) - Chordoma  
Arkansas (University of Arkansas Medical Center) - Chordoma  
Colorado, Denver - Poorly-differentiated carcinoma  
Florida (Winter Haven Hospital) - Chordoma  
Georgia, Decatur - Chordoma  
Illinois (Heartland Regional Medical Center) - Chordoma  
Kansas (Coffeyville Regional Medical Center) - Chordoma, sacrum  
Kansas (Kansas University Medical Center) - Chordoma  
Kansas, Manhattan - Chordoma  
Kentucky (University of Louisville Hospital) - Chondroid chordoma  
Louisiana (LSUHSC Shreveport) - Chordoma  
Louisiana, Metairie - Chordoma  
Maryland (Johns Hopkins Medical Center) - Chordoma  
Maryland (National Naval Medical Center) - Chordoma  
New York (Nassau University Medical Center) - Chondroid chordoma  
New York (New York Presbyterian - Cornell Residents) - Chordoma  
Ohio, Columbus - Chordoma  
Pennsylvania (Allegheny General Hospital) - Chordoma  
Pennsylvania (Drexel University College of Medicine) - Chordoma  
Pennsylvania (Memorial Medical Center) - Chordoma  
Pennsylvania (UPMC/Shadyside) - Chordoma

Texas (Scott & White Hospital) - Chordoma  
Texas, Lubbock - Chordoma  
Texas, San Antonio - Chordoma  
Washington, D.C. - Chordoma  
Canada (University of Calgary, Foothills Hospital) - Chordoma  
China (Sir Run Run Shaw Hospital) - Chordoma  
Italy, Naples - Chordoma  
Japan (Hamamatsu University School of Medicine) - Chordoma  
Japan, Chiba - Chordoma  
Qatar, Doha - Chordoma  
Saudi Arabia, Al Hassa - Chordoma  
Spain (Povisa) - Chondroid chordoma  
The Netherlands, Amstelveen - Sacral chordoma

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

Chordoma, sacrum  
 T-10800, M-93703

#### **Case 9 - References:**

Thilmann C, Schulz-Ertner D, Zabel A, et al: Intensity-Modulated Radiotherapy of Sacral Chordoma--A Case Report and A Comparison With Stereotactic Conformal Radiotherapy. *Acta Oncol*, 2004; 41(4):395-9.  
 McMaster ML, Goldstein Am, Bromley CM: Chordoma: Incidence and Survival Patterns in the United States, 1973-1995. *Cancer Causes Control*, 2001 Jan; 12(1):1-11.  
 Scheil S, Bruderlein S, Liehr T, et al: Genome-Wide Analysis of Sixteen Chordomas By Comparative Genomic Hybridization And Cytogenetics of the First Human Chordoma Cell Line, U-CHI. *Genes Chromosomes Cancer*, 2001 Nov; 32(3):203-11.  
 Yonemoto T, Tatzaki S, Takenouchi T, et al. The Surgical Management of Sacrococcygeal Chordoma. *Cancer* 1999; 85(4):878-883.  
 Layfield LJ, Liu K, Dodd LG, et al. "Dedifferentiated" Chordoma. A Case Report of the Cytomorphologic Findings on Fine-Needle Aspiration. *Diagn Cytopathol* 1998; 19(5):378-381.

#### **Case No. 10, Accession No. 29740**

**February, 2004**

Glendale (Glendale Pathology Association) - High-grade chondroblastic osteosarcoma  
Granada Hills - Mesenchymal chondrosarcoma  
Orange (UCI Medical Center Residents) - Osteosarcoma  
San Fernando (K-R San Fernando Valley Group) - Chondrosarcoma (r.o. osteogenic) (1); chondrosarcoma (1)  
San Francisco (San Francisco General Hospital) - Chondrosarcoma, Grade II-III  
Arizona (Phoenix Memorial Hospital) - Extra-skeletal mesenchymal chondrosarcoma  
Arkansas (University of Arkansas Medical Center) - Osteosarcoma  
Colorado, Denver - Chondrosarcoma  
Florida (Winter Haven Hospital) - Chondrosarcoma  
Georgia, Decatur - Chondrosarcoma with dedifferentiation  
Illinois (Heartland Regional Medical Center) - Osteosarcoma  
Kansas (Coffeyville Regional Medical Center) - Chondrosarcoma, chest wall  
Kansas (Kansas University Medical Center) - Osteosarcoma with chondroid differentiation  
Kansas, Manhattan - Osteosarcoma  
Kentucky (University of Louisville Hospital) - Chondrosarcoma  
Louisiana (LSUHSC Shreveport) - Chondroblastic osteosarcoma  
Louisiana, Metairie - Chondrosarcoma, high grade  
Maryland (Johns Hopkins Medical Center) - Osteosarcoma  
Maryland (National Naval Medical Center) - Osteosarcoma (10); chondrosarcoma (1); dedifferentiated liposarcoma (1)  
New York (Nassau University Medical Center) - Extraskelatal chondrosarcoma  
New York (New York Presbyterian - Cornell Residents) - Pleomorphic sarcoma, NOS, possibly radiation induced  
Ohio, Columbus - Osteosarcoma  
Pennsylvania (Allegheny General Hospital) - Chondroblastic osteosarcoma  
Pennsylvania (Drexel University College of Medicine) - Post-radiation high grade sarcoma with areas of chondrosarcoma and osteosarcoma (malignant mesenchymoma)  
Pennsylvania (Memorial Medical Center) - Mesenchymal chondrosarcoma  
Pennsylvania (UPMC/Shadyside) - Post-radiation sarcoma  
Texas (Scott & White Hospital) - Extraskelatal osteosarcoma