



CALIFORNIA
TUMOR TISSUE REGISTRY

GYNECOLOGIC PATHOLOGY

Minutes – Subscription A

January, 2004



SUGGESTED READING (General Topics from Recent Literature):

Oral Contraceptive Pills Are Associated with Artifacts in ThinPrep Smears that Mimic Low-Grade Squamous Intraepithelial Lesions. Morrison C, Prokorym P, Piquero C, et al. *Cancer* 99(2):75-82.

Descriptive Epidemiology of Ovarian Cancer in the U.S. 1992-1997. *Cancer* (Supplement), May 2003.

Liquid-Based Cytology and Conventional Cervical Smears. Cheung AN, Szeto EF, Leung BS, et al. *Cancer* 2003; 99:331-335.

Glandular Cell Atypia on Papanicolaou Smears. Interobserver Variability in the Diagnosis and Prediction of Cell of Origin. Simsir A, Hwang S, Cangiarella J, et al. *Cancer* 2003; 99:323-330.

A Namagram for Predicting the Likelihood of Additional Nodal Metastases in Breast Cancer Patients with a Positive Sentinel Node Biopsy. Van Zee KJ, Manassek DME, Bevilacqua JLB, et al. *Ann Surg Oncol* 2003; 10(10):1140-1151.

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FILE DIAGNOSES

(Diagnoses may also be sent through our website at www.cttr... “subscriptions... submit answers”)

CTTR Subscription A

January 2004

Case 1:

Granulosa cell tumor, adult type, ovary
T-87000, M-86201

Case 2:

Disseminated peritoneal adenomucinosis (“low grade mucinous tumor”, likely of appendiceal origin)
T-6Y050, M-50100

Case 3:

Signet-ring stromal tumor, ovary
T-87000, M-69360

Case 4:

Metastatic mucinous (signet ring) adenocarcinoma (“Krukenberg tumor”), ovary
T-87000, M-84803

Case 5:

Leiomyosarcoma, vagina
T-81000, M-88903

Case 6:

Villoglandular carcinoma (“well-differentiated papillary adenocarcinoma”), cervix
T-83000, M-82623

Case 7:

Mitotically active cellular leiomyoma, uterus
T-82000, M-88921

Case 8:

Clear cell carcinoma, uterus
T-82000, M-83103

Case 9:

Malignant mixed mullerian tumor (“carcinosarcoma”), uterus
T-82000, M-89803

Case 10:

High grade mesenchymal neoplasm consistent with stromal sarcoma, uterus
T-82000, M-89303

Case 10b:

Littoral cell angioma, spleen
T-07000, M-91200

Alameda (Alameda County Medical Center) - Adult granulosa cell tumor
Bakersfield - Granulosa cell tumor
Baldwin Park (Kaiser Permanente) - Leydig cell tumor (3)
Hayward/Fremont - Proliferating transitional cell (Brenner) tumor, ovary
Irvine (UC Davis Medical Center) - Granulosa cell tumor
Laguna Beach (South Coast Medical Center) - Granulosa cell tumor
Loma Linda (Loma Linda University Residents) - Sex cord stromal ovarian tumor, favor juvenile granulosa cell tumor (unusual inhibin negative variant)
Long Beach (Lakewood Regional Medical Center) - Juvenile granulosa-cell tumor (9)
Monterey (Community Hospital of Monterey Peninsula) - Granulosa cell tumor
Mountain View (El Camino Pathology Group, Inc.) - Granulosa cell tumor
Oakland (Kaiser Permanente) - Adult granulosa cell tumor (5)
Orange (Orange County Pathology Medical Group) - Granulosa cell tumor
Sacramento (UC Davis Medical Center) - Poorly differentiated Sertoli-Leydig cell tumor
San Diego (Naval Medical Center) - Adult granulosa cell tumor; Juvenile granulosa cell tumor (2nd choice)
San Francisco (UCSF) - Granulosa cell tumor
Santa Rosa (Santa Rosa Memorial Hospital) - Granulosa cell tumor (3)
Ventura - Granulosa cell tumor
Alaska (Alaska Native Medical Center) - Granulosa cell tumor, adult type
Arizona (Maryvale Medical Center) - Adult granulosa cell tumor
Arkansas (University of Arkansas Medical Center) - Granulosa cell tumor
Colorado (Evergreen) - Granulosa cell tumor
Colorado (Lutheran Medical Center) - Adult granulosa cell tumor
Florida (Tallahassee) - Endometrial stromal sarcoma, diffuse adult granulosa cell tumor
Florida (Winter Haven Hospital) - Granulosa cell tumor
Illinois - Adult granulosa cell tumor
Illinois (Northwestern Memorial Hospital) - Granulosa cell tumor
Indiana (Kokomo) - Thecoma
Louisiana (Louisiana State University Medical Center) - Granulosa cell tumor
Maryland (Johns Hopkins Hospital) - Granulosa cell tumor vs. ovarian tumor of probably Wolffian origin (inhibin)
Maryland (National Naval Medical Center) - Granulosa cell tumor
Massachusetts (Berkshire Medical Center) - Granulosa cell tumor
Massachusetts (New England Medical Center Residents) - Granulosa cell tumor, adult type
Michigan (Kalamazoo) - Juvenile granulosa cell tumor
Minnesota (Fairview Southdale Hospital) - Sex cord stromal tumor favor adult granulosa cell tumor
Nebraska (Creighton University School of Medicine Residents) - Adult granulosa cell tumor
New Jersey (Overlook Hospital) - Granulosa cell tumor
New York (Long Island Jewish Medical Center) - Granulosa cell tumor, possibly juvenile type
New York (Nassau University Medical Center) - Granulosa cell tumor
New York (New York) - Sex cord stromal tumor-favor granulosa cell tumor
New York (New York Presbyterian Hospital Residents) - Granulosa cell tumor (8)
New York (Stony Brook University Hospital Residents) - Granulosa cell tumor
North Carolina (Mountain Area Pathology) - Inhibin negative granulosa cell tumor (4)
Ohio (Medical College of Ohio) - Juvenile granulosa cell tumor
Ohio (McCullough-Hyde Memorial Hospital) - Adult granulosa cell tumor
Oklahoma (Tulsa) - Epithelioid leiomyoma of borderline type
Pennsylvania (Allegheny General Hospital) - Granulosa cell tumor, adult type
Pennsylvania (Centre Community Hospital) - Ovarian thecoma
Pennsylvania (Conemaugh Memorial Medical Center) - Granulosa cell tumor
Pennsylvania (Drexel University School of Medicine) - Granulosa cell tumor
Pennsylvania (Lehigh Valley Hospital) - Juvenile granulosa cell tumor (1); Granular cell tumor (1)
Pennsylvania (UPMC Health System) - Adult granulosa cell tumor
Rhode Island (RI Hospital Residents) - Adult granulosa cell tumor, diffuse pattern
Texas (Propath Associates) - Granulosa cell tumor (2)
Texas (Scott & White Memorial Hospital) - Granulosa cell tumor
West Virginia (Greenbrier Valley Medical Center) - Granulosa cell carcinoma

Wisconsin (Meriter Hospital) - Juvenile granulosa cell tumor
Australia (North Queensland Pathology) - Granulosa cell tumor
Australia (Royal Prince Alfred Hospital) - Partially luteinized adult granulosa cell tumor
Canada (Foothills Medical Center) - Unclassified sex cord stromal tumor
Hong Kong (Hong Kong Baptist Hospital) - Adult granulosa cell tumor
Italy (Naples) - Adult granulosa cell tumor
Jamaica (University Hospital of the West Indies) - Adult granulosa cell tumor
Japan (Chiba) - Mixed germ cell sex cord stromal tumor of ovary
Netherlands (Amsterdam) - Sex cord stromal tumor (granulosa cell tumor)
Qatar (Hamad Medical Corporation) - Granulosa cell tumor
Saudi Arabia - Adult granulosa cell tumor

Case 1 - Diagnosis:

Granulosa cell tumor, adult type, ovary
 T-87000, M-86201

Case 1 – References:

Bondestam J, Kaivo-oja N, Kallio J, et al. Engagement of Activin and Bone Morphogenetic Protein Signaling Pathway Smad Proteins in the Induction of Inhibin B Production in Ovarian Granulosa Cells. *Mol Cell Endocrinol* 2002; 30(195):79.
 Fujimoto T, Sakuragi N, Okuyama K, et al. Histopathologic Prognostic Factors of Adult Granulosa Cell Tumors of the Ovary. *Acta Obstet Gynecol Scand* 2001; 80(11):1069-1074.
 Mayr D, Daltz-Wittmer C, Arbogast S, et al. Characteristic Pattern of Genetic Aberrations in Ovarian Granulosa Cell Tumors. *Mod Pathol* 2002; 15(9):951-957.
 Al-Badawi IA, Brasher PM, Ghatage P, et al. Postoperative Chemotherapy in Advanced Ovarian Granulosa Cell Tumors. *Int J Gynecol Cancer* 2002; 12(1):119-123.
 Gusberg SB and Kardon P. Proliferative Endometrial Response to Theca-Granulosa Cell Tumors. *Am J Obstet Gynecol* 1971; 111:633-643.
 Vesco KK and Carney ME. Granulosa Cell Tumor of the Ovary. Extensive Late Recurrence after Initial Occult Microscopic Disease. *Obstet Gynecol* 2002; 99:888-891.

Case No. 2, Accession No. 29629

January 2004

Alameda (Alameda County Medical Center) - Mucinous tumor of low malignant potential with associated pseudomyxoma peritonei
Bakersfield - Atypical proliferative mucinous tumor
Baldwin Park (Kaiser Permanente) - Pseudomyxoma ovarii from pseudomyxoma of appendix (2); Mucinous adenocarcinoma, metastatic from appendix (Krukenberg tumor)
Hayward/Fremont - Pseudomyxoma peritonei due to appendiceal mucinous carcinoma
Irvine (UC Davis Medical Center) - Mucinous adenocarcinoma, metastatic from appendix
Laguna Beach (South Coast Medical Center) - Low grade mucinous appendiceal tumor
Loma Linda (Loma Linda University Residents) - Bilateral mucinous cystadenoma favor implants from appendiceal origin
Long Beach (Lakewood Regional Medical Center) - Mucinous adenocarcinoma of appendiceal primary (9)
Monterey (Community Hospital of Monterey Peninsula) - Metastatic mucin producing adenocarcinoma, appendix
Mountain View (El Camino Pathology Group, Inc.) - Metastatic mucinous adenocarcinoma, appendix primary
Oakland (Kaiser Permanente) - Metastatic appendiceal mucinous carcinoma (5)
Orange (Orange County Pathology Medical Group) - Adenocarcinoma, consistent with metastasis from appendix
Sacramento (UC Davis Medical Center) - Disseminated peritoneal adenocarcinosis
San Diego (Naval Medical Center) - Disseminated peritoneal adenomucinosi
San Francisco (UCSF) - Mucinous cystadenoma
Santa Rosa (Santa Rosa Memorial Hospital) - Metastatic mucinous carcinoma, most likely appendiceal primary (1); Mucinous carcinoma, probably metastatic (1); Pseudomyxoma ovarii, with pseudomyxoma peritonei syndrome due to low grade intestinal type mucinous neoplasm of probable appendiceal origin (1)
Ventura - Mucinous tumor of low malignant potential
Alaska (Alaska Native Medical Center) - Appendiceal mucinous adenocarcinoma metastatic to ovary
Arizona (Maryvale Medical Center) - Metastatic colonic mucinous carcinoma
Arkansas (University of Arkansas Medical Center) - Disseminated peritoneal adenomucinosi
Colorado (Evergreen) - Mucinous adenocarcinoma consistent with metastatic from appendix
Colorado (Lutheran Medical Center) - Mucinous borderline tumor, intestinal type

Florida (Tallahassee) - Mucinous carcinoma
Florida (Winter Haven Hospital) - Mucinous cystadenoma
Illinois - Mucinous adenocarcinoma
Illinois (Northwestern Memorial Hospital) - Adenomucinosi
Indiana (Kokomo) - Borderline mucinous adenocarcinoma of appendix
Louisiana (Louisiana State University Medical Center) - Peritoneal adenomucinosi (secondary to mucinous cystadenoma of the appendix)
Maryland (Johns Hopkins Hospital) - Signet-ring stromal tumor
Maryland (National Naval Medical Center) - Mucinous cystic tumor
Massachusetts (Berkshire Medical Center) - Borderline mucinous cystadenoma of probable appendiceal origin
Massachusetts (New England Medical Center Residents) - Disseminated peritoneal adenomucinosi, appendix primary
Michigan (Kalamazoo) - Metastatic mucinous adenocarcinoma from appendix
Minnesota (Fairview Southdale Hospital) - Metastatic mucinous adenocarcinoma
Nebraska (Creighton University School of Medicine Residents) - Mucinous adenocarcinoma
New Jersey (Overlook Hospital) - Metastatic adenocarcinoma (well-differentiated with pseudomyxoma features) from appendix
New York (Long Island Jewish Medical Center) - Mucinous cystadenocarcinoma, metastatic
New York (Nassau University Medical Center) - Pseudomyxoma ovarii
New York (New York) - Mucinous neoplasm associated with pseudomyxoma peritonei with features intermediate between disseminated peritoneal adenomucinosi and peritoneal mucinous carcinoma (appendiceal primary)
New York (New York Presbyterian Hospital Residents) - Well-differentiated mucinous adenocarcinoma, metastatic pseudomyxoma peritonei (3); Well-differentiated mucinous adenocarcinoma, metastatic (1); Mucinous adenocarcinoma (1); Mucinous adenocarcinoma, metastatic pseudomyxoma peritonei (1); Mucinous adenocarcinoma, consistent with metastatic from appendix (1); Mucinous neoplasm, favor well-differentiated adenocarcinoma, rule out metastatic (1);
New York (Stony Brook University Hospital Residents) - Low grade mucinous adenocarcinoma of the appendix
North Carolina (Mountain Area Pathology) - Metastatic appendiceal adenocarcinoma (4)
Ohio (Medical College of Ohio) - Mucinous cystadenoma of appendiceal origin
Ohio (McCullough-Hyde Memorial Hospital) - Mucinous cystic tumor
Oklahoma (Tulsa) - Mucinous cystadenoma, borderline
Pennsylvania (Allegheny General Hospital) - Metastatic mucinous carcinoma from an appendiceal primary
Pennsylvania (Centre Community Hospital) - Metastatic low-grade mucinous adenocarcinoma of probable appendiceal origin
Pennsylvania (Conemaugh Memorial Medical Center) - Metastatic mucinous cystadenocarcinoma of appendix
Pennsylvania (Drexel University School of Medicine) - Mucinous adenocarcinoma, appendiceal
Pennsylvania (Lehigh Valley Hospital) - Mucinous adenocarcinoma probably colonic primary (1); Adenocarcinoma (1)
Pennsylvania (UPMC Health System) - Mucinous cystadenoma
Rhode Island (RI Hospital Residents) - Mucinous cystic tumor of appendix associated with pseudomyxoma peritonei
Texas (Propath Associates) - Mucinous cystadenoma of borderline malignancy (1); Mucinous cystic tumor of borderline malignancy with pseudomyxoma peritonei (1)
Texas (Scott & White Memorial Hospital) - Metastatic mucinous adenocarcinoma
West Virginia (Greenbrier Valley Medical Center) - Mucinous cystadenoma, borderline
Wisconsin (Meriter Hospital) - Metastatic mucinous adenocarcinoma
Australia (North Queensland Pathology) - Pseudomyxoma peritonei ? associated with well-differentiated appendiceal carcinoma
Australia (Royal Prince Alfred Hospital) - Pseudomyxoma ovarii (cell rich) likely metastatic low grade mucinous adenocarcinoma from appendix
Canada (Foothills Medical Center) - Low grade mucinous tumor of ovary consistent with origin from appendiceal mucinous neoplasm
Hong Kong (Hong Kong Baptist Hospital) - Mucinous borderline tumor, appendiceal origin
Italy (Naples) - Mucinous carcinoma (pseudomyxoma ovarii), probably metastatic
Jamaica (University Hospital of the West Indies) - Ovarian cystic mucinous tumor, borderline
Japan (Chiba) - Mucinous adenocarcinoma of appendix
Netherlands (Amsterdam) - Metastatic mucinous adenocarcinoma of the digestive tract
Qatar (Hamad Medical Corporation) - Metastatic mucinous carcinoma of appendiceal origin
Saudi Arabia - Metastatic mucinous cystic tumor

Case 2 - Diagnosis:

Disseminated peritoneal adenomucinosi ("low grade mucinous tumor", likely of appendiceal origin)
 T-6Y050, M-50100

Case 2 - References:

- Yaldiz M, Uzunlar AK, Kiline N, et al. Mucinous Tumors of the Ovary. Analysis of 38 Cases. *Eur J Gynaecol Oncol* 2001; 22(5):358-360.
- Young RH, Gilks CB and Scully RE. Mucinous Tumors of the Appendix Associated with Mucinous Tumors of the Ovary and Pseudomyxoma Peritonei. A Clinicopathological Analysis of 22 Cases Supporting an Origin in the Appendix. *Am J Surg Pathol* 1991; 15(5):415-429.
- Nomura K and Aizawa S. Noninvasive, Microinvasive, and Invasive Mucinous Carcinomas of the Ovary. A Clinicopathologic Analysis of 40 Cases. *Cancer* 2000; 89(7):1541-1546.
- Bouzourene H and Genton CY. Mucinous Tumors of the Ovary. Anatomic-Clinical Aspects, Histological Classification, Prognostic Factors and Histogenesis. *Arch Anat Cytol Pathol* 1997; 45(4):192-198.
- Groisman GM, Meir A and Sabo E. The Value of Cdx2 Immunostaining in Differentiating Primary Ovarian Carcinomas from Colonic Carcinomas Metastatic to the Ovaries. *Int J Gynecol Pathol* 2004; 23(1):52-57.

Case No. 3, Accession No. 29458

January 2004

- Alameda (Alameda County Medical Center) - Thecoma with incidental Brenner epithelial nests
- Bakersfield - Thecoma
- Baldwin Park (Kaiser Permanente) - Steroid cell tumor (3)
- Hayward/Fremont - Gonadal stromal tumor (Sertoli-Leydig cell tumor), ovary
- Irvine (UC Davis Medical Center) - Signet-ring cell stromal tumor
- Laguna Beach (South Coast Medical Center) - Signet-ring stromal tumor of the ovary
- Loma Linda (Loma Linda University Residents) - Ovarian thecoma
- Long Beach (Lakewood Regional Medical Center) - Signet-ring stromal (9)
- Monterey (Community Hospital of Monterey Peninsula) - Leutenized thecoma
- Mountain View (El Camino Pathology Group, Inc.) - Fibrothecoma
- Oakland (Kaiser Permanente) - Thecoma (5)
- Orange (Orange County Pathology Medical Group) - Brenner tumor plus signet-ring stromal tumor
- Sacramento (UC Davis Medical Center) - Signet ring stromal tumor
- San Diego (Naval Medical Center) - Thecoma, leutenized (1); Signet-ring stromal tumor (2nd choice)
- San Francisco (UCSF) - Signet-ring stromal tumor
- Santa Rosa (Santa Rosa Memorial Hospital) - Signet-ring stromal tumor vs. sclerosing stromal tumor (1); Sclerosing stromal tumor (2)
- Ventura - Thecoma
- Alaska (Alaska Native Medical Center) - Luteinized thecomas/thecosis (2); Krukenberg tumor (1)
- Arizona (Maryvale Medical Center) - Krukenberg tumor with amyloidosis
- Arkansas (University of Arkansas Medical Center) - Thecoma
- Colorado (Evergreen) - Thecoma
- Colorado (Lutheran Medical Center) - Signet-ring stromal tumor
- Florida (Tallahassee) - Steroid cell tumor
- Florida (Winter Haven Hospital) - Steroid cell tumor, Brenner tumor
- Illinois - Fibrothecoma
- Illinois (Northwestern Memorial Hospital) - Signet-ring stromal tumor, incidental Brenner tumor
- Indiana (Kokomo) - Yolk sac tumor
- Louisiana (Louisiana State University Medical Center) - Signet-ring stromal tumor of the ovary
- Maryland (Johns Hopkins Hospital) - Mucinous adenoma from appendix (pseudomyxoma peritonei)
- Maryland (National Naval Medical Center) - Brenner tumor/signet-ring stromal tumor
- Massachusetts (Berkshire Medical Center) - Thecoma
- Massachusetts (New England Medical Center Residents) - Sclerosing stromal tumor
- Michigan (Kalamazoo) - Thecoma
- Minnesota (Fairview Southdale Hospital) - Sex cord stromal tumor consistent with signet-ring stromal tumor
- Nebraska (Creighton University School of Medicine Residents) - Thecoma vs. signet-ring stromal tumor
- New Jersey (Overlook Hospital) - Fibroma consistent with lipidization
- New York (Long Island Jewish Medical Center) - Signet-ring cell stromal tumor
- New York (Nassau University Medical Center) - Fibrothecoma
- New York (New York) - Clear cell carcinoma of ovary
- New York (New York Presbyterian Hospital Residents) - Sclerosing stromal tumor (8)

New York (Stony Brook University Hospital Residents) - Stromal tumor, signet-ring cell type
North Carolina (Mountain Area Pathology) - Signet stromal tumor (2); Signet-ring stromal tumor of the ovary (Brenner tumor) (1);
 Stromal tumor (signet-ring cell stromal tumor) (1)
Ohio (Medical College of Ohio) - Signet-ring stromal tumor
Ohio (McCullough-Hyde Memorial Hospital) - Signet-ring stromal tumor
Oklahoma (Tulsa) - Clear cell carcinoma
Pennsylvania (Allegheny General Hospital) - Thecoma
Pennsylvania (Centre Community Hospital) - Leuteinized thecoma
Pennsylvania (Conemaugh Memorial Medical Center) - Cystic variant of yolk sac tumor
Pennsylvania (Drexel University School of Medicine) - Fibrothecoma
Pennsylvania (Lehigh Valley Hospital) - Thecoma (1); Steroid cell tumor (1)
Pennsylvania (UPMC Health System) - Sclerosing stromal tumor
Rhode Island (RI Hospital Residents) - Signet-ring stromal tumor
Texas (Propath Associates) - Thecoma (2)
Texas (Scott & White Memorial Hospital) - Sclerosing stromal tumor
West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma signet-ring (Krukenberg's)
Wisconsin (Meriter Hospital) - Signet-ring stromal tumor
Australia (North Queensland Pathology) - Lipidized stromal cell tumor
Australia (Royal Prince Alfred Hospital) - Signet-ring cell gonadal stromal tumor of the ovary (type of fibrothecoma)
Canada (Foothills Medical Center) - Signet-ring stromal tumor and benign Brenner tumor
Hong Kong (Hong Kong Baptist Hospital) - Signet-ring stromal tumor
Italy (Naples) - Krukenburg tumor and associated benign Brenner tumor
Jamaica (University Hospital of the West Indies) - Signet-ring stromal tumor
Japan (Chiba) - Signet-ring stromal tumor of left ovary
Netherlands (Amsterdam) - Signet-ring stromal tumor
Qatar (Hamad Medical Corporation) - Brenner tumor
Saudi Arabia - Signet-ring stromal tumor

Case 3 - Diagnosis:

Signet-ring stromal tumor, ovary
 T-87000, M-69360

Case 3 - References:

Ramzy I and Delaney M. Signet-Ring Cell Stromal Tumor of Ovary Cytologic Appearances of Fine Needle Aspiration Biopsy. *Acta Cytol* 1977; 21(1):14-17.
 Syed SP and Chase DR. Signet-Ring Stromal Tumor of Ovary. Web Publication at www.cttr.org, Oct 2003.
 Cashell AW, Jerome WG and Flores E. Signet Ring Stromal Tumor of the Ovary Occurring in Conjunction with Brenner Tumor. *Gynecol Oncol* 2000; 77(2):323-326.

Case No. 4, Accession No. 29674

January 2004

Alameda (Alameda County Medical Center) - Mucinous adenocarcinoma
Bakersfield - Krukenberg tumor
Baldwin Park (Kaiser Permanente) - Metastatic adenocarcinoma (3)
Hayward/Fremont - Metastatic mucinous carcinoma, ovary
Irvine (UC Davis Medical Center) - Goblet cell carcinoid
Laguna Beach (South Coast Medical Center) - Krukenberg tumor
Loma Linda (Loma Linda University Residents) - Krukenberg tumor, tubular variant, rule out ? (especially gastric signet-ring carcinoma)
Long Beach (Lakewood Regional Medical Center) - Metastatic mucinous signet ring cell carcinoma (Krukenberg tumor) (9)
Monterey (Community Hospital of Monterey Peninsula) - Metastatic in stomach
Mountain View (El Camino Pathology Group, Inc.) - Metastatic signet-ring cell adenocarcinoma (Krukenberg tumor)
Oakland (Kaiser Permanente) - Metastatic mucinous carcinoma (Krukenberg tumor) (5)
Orange (Orange County Pathology Medical Group) - Adenocarcinoma, consistent with metastasis from stomach
Sacramento (UC Davis Medical Center) - Metastatic signet-ring cell carcinoma/mucinous carcinoid tumor should also be considered
San Diego (Naval Medical Center) - Krukenberg (1); Goblet cell carcinoid (2nd choice)

San Francisco (UCSF) - Mucinous adenocarcinoma
Santa Rosa (Santa Rosa Memorial Hospital) - Krukenberg tumor (2); Metastatic signet ring cell adenocarcinoma (1)
Ventura - Krukenberg tumor
Alaska (Alaska Native Medical Center) - Metastatic mucinous adenocarcinoma/Krukenberg tumor
Arizona (Maryvale Medical Center) - Krukenberg tumor
Arkansas (University of Arkansas Medical Center) - Krukenberg tumor
Colorado (Evergreen) - Sertoli-leydig cell tumor
Colorado (Lutheran Medical Center) - Metastatic signet-ring carcinoma
Florida (Tallahassee) - Krukenberg tumor
Florida (Winter Haven Hospital) - Metastatic mucinous adenocarcinoma (Krukenberg)
Illinois - Metastatic mucus producing adenocarcinoma
Illinois (Northwestern Memorial Hospital) - Goblet cell carcinoid
Indiana (Kokomo) - Leydig cell tumor
Louisiana (Louisiana State University Medical Center) - Krukenberg tumor, ovary
Maryland (Johns Hopkins Hospital) - Metastatic adenocarcinoma
Maryland (National Naval Medical Center) - Goblet cell carcinoid (12); Krukenberg tumor (3)
Massachusetts (Berkshire Medical Center) - Signet ring cell carcinoma
Massachusetts (New England Medical Center Residents) - Goblet cell carcinoid
Michigan (Kalamazoo) - Sertoli-Leydig cell tumor
Minnesota (Fairview Southdale Hospital) - Signet-ring pattern adenocarcinoma (? Krukenberg)
Nebraska (Creighton University School of Medicine Residents) - Krukenberg tumor
New Jersey (Overlook Hospital) - Signet ring cell carcinoma, metastatic
New York (Long Island Jewish Medical Center) - Signet-ring cell adenocarcinoma
New York (Nassau University Medical Center) - Mucinous adenocarcinoma, favor metastatic
New York (New York) - Metastatic adenocarcinoma with signet-ring features
New York (New York Presbyterian Hospital Residents) - Adenocarcinoma favor metastatic (8)
New York (Stony Brook University Hospital Residents) - Mucinous carcinoid
North Carolina (Mountain Area Pathology) - Metastatic signet-ring adenocarcinoma (4)
Ohio (Medical College of Ohio) - Metastatic signet-ring cell carcinoma (Krukenberg tumor)
Ohio (McCullough-Hyde Memorial Hospital) - Krukenberg tumor (malignant signet-ring)
Oklahoma (Tulsa) - Clear cell carcinoma
Pennsylvania (Allegheny General Hospital) - Krukenberg tumor (metastatic poorly differentiated adenocarcinoma)
Pennsylvania (Centre Community Hospital) - Krukenberg's tumor (metastatic signet-ring carcinoma) vs. mucinous carcinoid of ovary
Pennsylvania (Conemaugh Memorial Medical Center) - Krukenberg tumor
Pennsylvania (Drexel University School of Medicine) - Metastatic mucinous adenocarcinoma, signet-ring cell type (Krukenberg tumor)
Pennsylvania (Lehigh Valley Hospital) - Adenocarcinoma with signet-ring features (1); Metastatic (?) adenocarcinoma (1)
Pennsylvania (UPMC Health System) - Krukenberg tumor (metastatic signet-ring cell carcinoma)
Rhode Island (RI Hospital Residents) - Krukenberg tumor (metastatic mucinous adenocarcinoma)
Texas (Propath Associates) - Krukenberg tumor (2)
Texas (Scott & White Memorial Hospital) - Metastatic signet-ring adenocarcinoma
West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma, endometrioid
Wisconsin (Meriter Hospital) - Metastatic adenocarcinoma (Krukenberg tumor)
Australia (North Queensland Pathology) - Krukenberg tumor
Australia (Royal Prince Alfred Hospital) - Krukenberg tumor
Canada (Foothills Medical Center) - Metastatic signet-ring carcinoma (Krukenberg tumor)
Hong Kong (Hong Kong Baptist Hospital) - Metastatic signet-ring cell carcinoma (Krukenberg tumor)
Italy (Naples) - Goblet cell carcinoid
Jamaica (University Hospital of the West Indies) - Krukenberg tumor
Japan (Chiba) - Krukenberg tumor of ovary
Netherlands (Amsterdam) - Metastatic mucinous adenocarcinoma ?
Qatar (Hamad Medical Corporation) - Krukenberg tumor
Saudi Arabia - Mucinous carcinoid tumor

Case 4 - Diagnosis:

Metastatic mucinous (signet ring) adenocarcinoma ("Krukenberg tumor"), ovary
 T-87000, M-84803

Case 4 - References:

- Holtz F and Hart WR. Krukenberg Tumors of the Ovary. A Clinicopathologic Analysis of 27 Cases. *Cancer* 1982; 50(11):2438-2447.
- Mrad K, Morice P, Fabre A, et al. Krukenberg Tumor. A Clinicopathological Study of 15 Cases. *Ann Pathol* 2000; 20(3):202-206.
- Sandmeier D, Lobrinus JA, Vial Y, et al. Bilateral Krukenberg Tumor of the Ovary During Pregnancy. *Eur J Gynaecol Oncol* 2000; 21(1):58-60.
- Kiang DT and Kennedy BJ. Estrogen Receptor Assay In the Differential Diagnosis of Adenocarcinomas. *JAMA* 1977; 238(1):32-34.
- Kim HK, Heo DS, Bang YJ, et al. Prognostic Factors of Krukenberg's Tumor. *Gynecol Oncol* 2001; 82(1):105-109.

Case No. 5, Accession No. 29707

January 2004

Alameda (Alameda County Medical Center) - Leiomyosarcoma

Bakersfield - Rhabdomyosarcoma

Baldwin Park (Kaiser Permanente) - Leiomyosarcoma, intermediate grade (3)

Hayward/Fremont - Leiomyosarcoma, vagina

Irvine (UC Davis Medical Center) - Leiomyosarcoma

Laguna Beach (South Coast Medical Center) - Leiomyosarcoma

Loma Linda (Loma Linda University Residents) - Symplastic leiomyoma

Long Beach (Lakewood Regional Medical Center) - Leiomyosarcoma (9)

Monterey (Community Hospital of Monterey Peninsula) - Leiomyosarcoma

Mountain View (El Camino Pathology Group, Inc.) - Leiomyosarcoma

Oakland (Kaiser Permanente) - Leiomyosarcoma (5)

Orange (Orange County Pathology Medical Group) - Leiomyosarcoma

Sacramento (UC Davis Medical Center) - Leiomyosarcoma

San Diego (Naval Medical Center) - Leiomyosarcoma

San Francisco (UCSF) - Atypical leiomyoma

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

Ventura - Leiomyosarcoma

Alaska (Alaska Native Medical Center) - Leiomyosarcoma

Arizona (Maryvale Medical Center) - Leiomyosarcoma

Arkansas (University of Arkansas Medical Center) - Leiomyosarcoma

Colorado (Evergreen) - Atypical/symplastic leiomyoma

Colorado (Lutheran Medical Center) - Leiomyosarcoma

Florida (Tallahassee) - Leiomyosarcoma

Florida (Winter Haven Hospital) - Leiomyosarcoma

Illinois - Rhabdomyosarcoma

Illinois (Northwestern Memorial Hospital) - Symplastic leiomyoma/leiomyosarcoma

Indiana (Kokomo) - Leiomyosarcoma

Louisiana (Louisiana State University Medical Center) - Leiomyosarcoma

Maryland (Johns Hopkins Hospital) - Leiomyosarcoma

Maryland (National Naval Medical Center) - Smooth muscle tumor of unknown malignant potential

Massachusetts (Berkshire Medical Center) - Leiomyosarcoma

Massachusetts (New England Medical Center Residents) - Leiomyosarcoma

Michigan (Kalamazoo) - Leiomyosarcoma

Minnesota (Fairview Southdale Hospital) - Leiomyosarcoma

Nebraska (Creighton University School of Medicine Residents) - Leiomyoma with bizarre nuclei vs. leiomyosarcoma

New Jersey (Overlook Hospital) - Leiomyosarcoma

New York (Long Island Jewish Medical Center) - Leiomyosarcoma

New York (Nassau University Medical Center) - Leiomyosarcoma

New York (New York) - Leiomyosarcoma

New York (New York Presbyterian Hospital Residents) - Leiomyosarcoma (8)

New York (Stony Brook University Hospital Residents) - Leiomyoma with symplastic change

North Carolina (Mountain Area Pathology) - Leiomyosarcoma (2); Atypical (symplastic leiomyoma) (2);

Ohio (Medical College of Ohio) - Leiomyosarcoma

Ohio (McCullough-Hyde Memorial Hospital) - Leiomyosarcoma

Oklahoma (Tulsa) - Leiomyosarcoma
Pennsylvania (Allegheny General Hospital) - Leiomyosarcoma
Pennsylvania (Centre Community Hospital) - Leiomyosarcoma of the vagina
Pennsylvania (Conemaugh Memorial Medical Center) - Leiomyosarcoma
Pennsylvania (Drexel University School of Medicine) - Smooth muscle tumor of unknown malignant potential
Pennsylvania (Lehigh Valley Hospital) - Leiomyosarcoma (2)
Pennsylvania (UPMC Health System) - Atypical leiomyoma with bizarre nuclei
Rhode Island (RI Hospital Residents) - Leiomyosarcoma
Texas (Propath Associates) - Low grade leiomyosarcoma (2)
Texas (Scott & White Memorial Hospital) - Symplastic (atypical) leiomyoma
West Virginia (Greenbrier Valley Medical Center) - Leiomyosarcoma
Wisconsin (Meriter Hospital) - Leiomyosarcoma
Australia (North Queensland Pathology) - Leiomyosarcoma
Australia (Royal Prince Alfred Hospital) - Atypical leiomyoma
Canada (Foothills Medical Center) - Bizarre leiomyoma
Hong Kong (Hong Kong Baptist Hospital) - Leiomyosarcoma
Italy (Naples) - Leiomyosarcoma
Jamaica (University Hospital of the West Indies) - Leiomyoma
Japan (Chiba) - Atypical leiomyoma of vagina
Netherlands (Amsterdam) - Leiomyosarcoma
Qatar (Hamad Medical Corporation) - Leiomyosarcoma (4); Bizarre (symplastic) leiomyoma (4)
Saudi Arabia - Leiomyosarcoma

Case 5 - Diagnosis:

Leiomyosarcoma, vagina
 T-81000, M-88903

Case 5 - References:

Akhtar M, Ahmeduddin J and Valencia M. Primary Leiomyosarcoma of the Vagina. Light and Electron Microscopic Study of a Case with Review of Literature. *Tex Med* 1978; 74(9):67-71.
 Tavassoli FA and Norris HJ. Smooth Muscle Tumors of the Vagina. *Obstet Gynecol* 1979; 53(6):689-693.
 Peters WA 3rd, Kumar NB and Andersen WA. Primary Sarcoma of the Adult Vagina. A Clinicopathologic Study. *Obstet Gynecol* 1985; 65(5):699-704.
 Kosary CL. FIGO Stage, Histology, Histologic Grade, Age and Race as Prognostic Factors in Determining Survival for Cancers of the Female Gynecological System. An Analysis of 1973-87 SEER Cases of Cancers of the Endometrium, Cervix, Ovary, Vulva and Vagina. *Semin Surg Oncol* 1994; 10(1):31-46.
 Curtin JP, Saigo P, Slucher B, et al. Soft Tissue Sarcoma of the Vagina and Vulva. A Clinicopathologic Study. *Obstet Gynecol* 1994; 86(2):269-272.

Case No. 6, Accession No. 29248

January 2004

Alameda (Alameda County Medical Center) - Villoglandular adenocarcinoma
Bakersfield - Well-differentiated villoglandular adenocarcinoma
Baldwin Park (Kaiser Permanente) - Well-differentiated villoglandular adenocarcinoma (3)
Hayward/Fremont - Villoglandular adenocarcinoma, cervix
Irvine (UC Davis Medical Center) - Villoglandular carcinoma
Laguna Beach (South Coast Medical Center) - Villoglandular adenocarcinoma of the cervix
Loma Linda (Loma Linda University Residents) - Villoglandular adenocarcinoma of cervix
Long Beach (Lakewood Regional Medical Center) - Papillary adenocarcinoma (9)
Monterey (Community Hospital of Monterey Peninsula) - Villoglandular carcinoma
Mountain View (El Camino Pathology Group, Inc.) - Villoglandular adenocarcinoma
Oakland (Kaiser Permanente) - Well-differentiated endocervical adenocarcinoma (3); Well-differentiated villoglandular type (2)
Orange (Orange County Pathology Medical Group) - Well-differentiated villoglandular adenocarcinoma
Sacramento (UC Davis Medical Center) - Well-differentiated villoglandular adenocarcinoma
San Diego (Naval Medical Center) - Well-differentiated villoglandular adenocarcinoma, endocervical type
San Francisco (UCSF) - Moderately differentiated adenocarcinoma, endocervical

Santa Rosa (Santa Rosa Memorial Hospital) - Adenocarcinoma, low grade endometrioid type (1); Endocervical adenocarcinoma(1); Well-differentiated villoglandular adenocarcinoma (1)

Ventura - Endocervical adenocarcinoma

Alaska (Alaska Native Medical Center) - Well-differentiated villoglandular adenocarcinoma

Arizona (Maryvale Medical Center) - Well-differentiated villoglandular adenocarcinoma

Arkansas (University of Arkansas Medical Center) - Well-differentiated villoglandular adenocarcinoma

Colorado (Evergreen) - Well-differentiated villoglandular adenocarcinoma

Colorado (Lutheran Medical Center) - Villoglandular papillary adenocarcinoma

Florida (Tallahassee) - Endocervical adenocarcinoma

Florida (Winter Haven Hospital) - Papillary adenocarcinoma with villoglandular features

Illinois - Adenocarcinoma

Illinois (Northwestern Memorial Hospital) - Villoglandular adenocarcinoma

Indiana (Kokomo) - Papillary serous carcinoma

Louisiana (Louisiana State University Medical Center) - Villoglandular carcinoma of the cervix with endometrioid features

Maryland (Johns Hopkins Hospital) - Villoglandular adenocarcinoma

Maryland (National Naval Medical Center) - Villoglandular adenocarcinoma, well-differentiated

Massachusetts (Berkshire Medical Center) - Villoglandular adenocarcinoma

Massachusetts (New England Medical Center Residents) - Villoglandular adenocarcinoma, cervix

Michigan (Kalamazoo) - Endocervical adenocarcinoma

Minnesota (Fairview Southdale Hospital) - Villoglandular adenocarcinoma

Nebraska (Creighton University School of Medicine Residents) - Villoglandular adenocarcinoma of the cervix

New Jersey (Overlook Hospital) - Villoglandular, well-differentiated adenocarcinoma

New York (Long Island Jewish Medical Center) - Well-differentiated villoglandular adenocarcinoma

New York (Nassau University Medical Center) - Serous papillary carcinoma

New York (New York) - Endocervical adenocarcinoma with villoglandular features

New York (New York Presbyterian Hospital Residents) - Papillary villoglandular adenocarcinoma

New York (Stony Brook University Hospital Residents) - Adenocarcinoma of cervix, villoglandular type

North Carolina (Mountain Area Pathology) - Villoglandular adenocarcinoma (4)

Ohio (Medical College of Ohio) - Well-differentiated villoglandular adenocarcinoma

Ohio (McCullough-Hyde Memorial Hospital) - Well-differentiated adenocarcinoma (? villoglandular)

Oklahoma (Tulsa) - Adenocarcinoma

Pennsylvania (Allegheny General Hospital) - Invasive villoglandular papillary adenocarcinoma of the cervix

Pennsylvania (Centre Community Hospital) - Villoglandular adenocarcinoma of the cervix

Pennsylvania (Conemaugh Memorial Medical Center) - Papillary adenocarcinoma

Pennsylvania (Drexel University School of Medicine) - Villoglandular adenocarcinoma

Pennsylvania (Lehigh Valley Hospital) - Well-differentiated villoglandular adenocarcinoma (1); Adenocarcinoma (1)

Pennsylvania (UPMC Health System) - Villoglandular carcinoma of endocervix (well-differentiated)

Rhode Island (RI Hospital Residents) - Villoglandular adenocarcinoma

Texas (ProPath Associates) - Endocervical adenocarcinoma (2)

Texas (Scott & White Memorial Hospital) - Well-differentiated villoglandular adenocarcinoma

West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma, villoglandular

Wisconsin (Meriter Hospital) - Papillary adenocarcinoma

Australia (North Queensland Pathology) - Villoglandular adenocarcinoma

Australia (Royal Prince Alfred Hospital) - Well-differentiated villoglandular adenocarcinoma of the cervix (endocervix-adenocarcinoma in-situ)

Canada (Foothills Medical Center) - Well-differentiated villoglandular adenocarcinoma of cervix

Hong Kong (Hong Kong Baptist Hospital) - Well-differentiated endometrioid adenocarcinoma, villoglandular variant

Italy (Naples) - Well-differentiated villoglandular adenocarcinoma

Jamaica (University Hospital of the West Indies) - Well-differentiated villoglandular adenocarcinoma

Japan (Chiba) - Well-differentiated villoglandular adenocarcinoma of uterine cervix

Netherlands (Amsterdam) - Papillary adenocarcinoma of the uterine cervix

Qatar (Hamad Medical Corporation) - Villoglandular papillary adenocarcinoma

Saudi Arabia - Endocervical villoglandular adenocarcinoma

Case 6 - Diagnosis:

Villoglandular carcinoma (“well-differentiated papillary adenocarcinoma”), cervix
T-83000, M-82623

Case 6 - References:

- Jones MW, Silverberg SG and Kurman RJ. Well-Differentiated Villoglandular Adenocarcinoma of the Uterine Cervix. A Clinicopathologic Study of 24 Cases. *Int J Gynecol Pathol* 1993; 12(1):1-7.
- Zaino RJ. Symposium Part I. Adenocarcinoma In-Situ, Glandular Dysplasia, and Early Invasive Adenocarcinoma of the Uterine Cervix. *Int J Gynecol Pathol* 2002; 21(4):314-326.
- Chang WC, Matisic JP, Zhou C, et al. Cytologic Features of Villoglandular Adenocarcinoma of the Uterine Cervix. Comparison with Typical Endocervical Adenocarcinoma with a Villoglandular Component and Papillary Serous Carcinoma. *Cancer* 1999; 87(1):5-11.

Case No. 7, Accession No. 27054

January 2004

- Alameda (Alameda County Medical Center) - Cellular leiomyoma
- Bakersfield - Leiomyoma
- Baldwin Park (Kaiser Permanente) - Leiomyoma (1); Cellular leiomyoma (2)
- Hayward/Fremont - Atypical leiomyoma, probably benign uterus
- Irvine (UC Davis Medical Center) - Mitotically active leiomyoma
- Laguna Beach (South Coast Medical Center) - Mitotically active leiomyoma
- Loma Linda (Loma Linda University Residents) - Cellular leiomyoma
- Long Beach (Lakewood Regional Medical Center) - Mitotically active leiomyoma (9)
- Monterey (Community Hospital of Monterey Peninsula) - Leiomyoma
- Mountain View (El Camino Pathology Group, Inc.) - Mitotically active leiomyoma
- Oakland (Kaiser Permanente) - Leiomyoma (mitotically active) (5)
- Orange (Orange County Pathology Medical Group) - Leiomyoma, cellular
- Sacramento (UC Davis Medical Center) - Cellular leiomyoma
- San Diego (Naval Medical Center) - Leiomyoma, mitotically active (1); Smooth muscle tumor of uncertain malignant potential (2nd choice)
- San Francisco (UCSF) - Cellular leiomyoma, mitotically active
- Santa Rosa (Santa Rosa Memorial Hospital) - Leiomyoma, mitotically active (1); Cellular leiomyoma (2)
- Ventura - Smooth muscle tumor of uncertain potential
- Alaska (Alaska Native Medical Center) - Mitotically active cellular leiomyoma
- Arizona (Maryvale Medical Center) - Leiomyosarcoma
- Arkansas (University of Arkansas Medical Center) - Mitotically active leiomyoma
- Colorado (Evergreen) - Cellular leiomyoma
- Colorado (Lutheran Medical Center) - Leiomyoma with increased mitotic figures
- Florida (Tallahassee) - Leiomyoma
- Florida (Winter Haven Hospital) - Leiomyosarcoma
- Illinois - Smooth muscle tumor of uncertain malignant potential
- Illinois (Northwestern Memorial Hospital) - Cellular leiomyoma
- Indiana (Kokomo) - Cellular leiomyoma
- Louisiana (Louisiana State University Medical Center) - Cellular leiomyoma, uterus
- Maryland (Johns Hopkins Hospital) - Mitotically active leiomyoma
- Maryland (National Naval Medical Center) - Leiomyoma, mitotically active
- Massachusetts (Berkshire Medical Center) - Smooth muscle tumor of uncertain malignant potential (STUMP)
- Massachusetts (New England Medical Center Residents) - Mitotically active leiomyoma
- Michigan (Kalamazoo) - Mitotically active leiomyoma
- Minnesota (Fairview Southdale Hospital) - Mitotically active leiomyoma
- Nebraska (Creighton University School of Medicine Residents) - Leiomyoma
- New Jersey (Overlook Hospital) - Leiomyosarcoma
- New York (Long Island Jewish Medical Center) - Smooth muscle tumor of uncertain malignant potential (STUMP)
- New York (Nassau University Medical Center) - Leiomyosarcoma
- New York (New York) - Mitotically active leiomyoma
- New York (New York Presbyterian Hospital Residents) - Leiomyoma mitotically active (8)
- New York (Stony Brook University Hospital Residents) - Intravenous leiomyomatosis
- North Carolina (Mountain Area Pathology) - Cellular leiomyoma (1); Smooth muscle tumor of uncertain biologic behavior (1); Leiomyoma (2)
- Ohio (Medical College of Ohio) - Smooth muscle tumor of uncertain malignant potential (STUMP)

Ohio (McCullough-Hyde Memorial Hospital) - Mitotically active leiomyoma
Oklahoma (Tulsa) - Leiomyoma, cellular
Pennsylvania (Allegheny General Hospital) - Cellular leiomyoma
Pennsylvania (Centre Community Hospital) - Cellular leiomyoma with increased mitotic activity of the uterus
Pennsylvania (Drexel University School of Medicine) - Leiomyoma, mitotically active
Pennsylvania (Lehigh Valley Hospital) - Smooth muscle tumor of uncertain malignant potential (1); Mitotically active leiomyoma (1)
Pennsylvania (UPMC Health System) - Cellular leiomyoma
Rhode Island (RI Hospital Residents) - Cellular leiomyoma
Texas (Propath Associates) - Cellular leiomyoma (1); Leiomyoma (1)
Texas (Scott & White Memorial Hospital) - Mitotically active cellular leiomyoma
West Virginia (Greenbrier Valley Medical Center) - Cellular leiomyoma
Wisconsin (Meriter Hospital) - Leiomyoma
Australia (North Queensland Pathology) - Leiomyoma of uncertain malignant potential
Australia (Royal Prince Alfred Hospital) - Benign mitotically active cellular leiomyoma
Canada (Foothills Medical Center) - Mitotically active leiomyoma
Hong Kong (Hong Kong Baptist Hospital) - Cellular leiomyoma
Italy (Naples) - Cellular leiomyoma
Jamaica (University Hospital of the West Indies) - Leiomyoma
Japan (Chiba) - Leiomyosarcoma of uterus
Netherlands (Amsterdam) - Mitotically active leiomyoma
Qatar (Hamad Medical Corporation) - Cellular leiomyoma
Saudi Arabia - Mitotically active leiomyoma

Case 7 - Diagnosis:

Mitotically active cellular leiomyoma, uterus
 T-82000, M-88921

Case 7 - References:

Forsnes EV, Derrough KR and O'Donoghue M. A Mitotically Active Myoma in Rokitansky-Kuster-Hauser Syndrome. *Obstet Gynecol* 1999; 94(5 Pt 2):862.
 Ravina JH, Herbreteau D, Giraru-Vigneron N, et al. Arterial Embolisation to Treat Uterine Myomata. *Lancet* 1995; 346:671-672.
 Visvanathan D, Connell R, Hall-Craggs MA, et al. Interstitial Laser Photocoagulation for Uterine Myomas. *Am J Obstet Gynecol* 2002; 187:382-384.

Case No. 8, Accession No. 23587

January 2004

Alameda (Alameda County Medical Center) - Clear cell adenocarcinoma
Bakersfield - Clear cell carcinoma
Baldwin Park (Kaiser Permanente) - Clear cell carcinoma (3)
Hayward/Fremont - Clear cell carcinoma, endometrium
Irvine (UC Davis Medical Center) - Clear cell carcinoma
Laguna Beach (South Coast Medical Center) - Clear cell carcinoma (endometrium)
Loma Linda (Loma Linda University Residents) - Clear cell endometrial carcinoma with superficial myoinvasion (cytokeratin stain to assess depth of myoinvasion)
Long Beach (Lakewood Regional Medical Center) - Clear cell adenocarcinoma (9)
Monterey (Community Hospital of Monterey Peninsula) - Clear cell carcinoma
Mountain View (El Camino Pathology Group, Inc.) - Clear cell adenocarcinoma
Oakland (Kaiser Permanente) - Clear cell carcinoma (5)
Orange (Orange County Pathology Medical Group) - Endometrial clear cell carcinoma
Sacramento (UC Davis Medical Center) - Clear cell carcinoma
San Diego (Naval Medical Center) - Clear cell adenocarcinoma
San Francisco (UCSF) - Clear cell carcinoma
Santa Rosa (Santa Rosa Memorial Hospital) - Clear cell carcinoma of endometrium (3)
Ventura - Clear cell adenocarcinoma
Alaska (Alaska Native Medical Center) - Clear cell endometrial carcinoma

Arizona (Maryvale Medical Center) - Clear cell carcinoma
Arkansas (University of Arkansas Medical Center) - Clear cell carcinoma
Colorado (Evergreen) - Clear cell carcinoma
Colorado (Lutheran Medical Center) - Clear cell carcinoma
Florida (Tallahassee) - Clear cell carcinoma
Florida (Winter Haven Hospital) - Clear cell carcinoma
Illinois - Clear cell adenocarcinoma
Illinois (Northwestern Memorial Hospital) - Clear cell carcinoma
Indiana (Kokomo) - Endometrial clear cell carcinoma
Louisiana (Louisiana State University Medical Center) - Clear cell carcinoma , endometrium
Maryland (Johns Hopkins Hospital) - Clear cell adenocarcinoma
Maryland (National Naval Medical Center) - Clear cell adenocarcinoma
Massachusetts (Berkshire Medical Center) - Clear cell carcinoma
Massachusetts (New England Medical Center Residents) - Clear cell carcinoma
Michigan (Kalamazoo) - Clear cell carcinoma
Minnesota (Fairview Southdale Hospital) - Clear cell carcinoma
Nebraska (Creighton University School of Medicine Residents) - Endometrial adenocarcinoma, clear cell type
New Jersey (Overlook Hospital) - Clear cell adenocarcinoma
New York (Long Island Jewish Medical Center) - Clear cell adenocarcinoma
New York (Nassau University Medical Center) - Mucinous adenocarcinoma
New York (New York) - Clear cell carcinoma of the endometrium
New York (New York Presbyterian Hospital Residents) - Clear cell carcinoma (8)
New York (Stony Brook University Hospital Residents) - Clear cell carcinoma
North Carolina (Mountain Area Pathology) - Clear cell adenocarcinoma (4)
Ohio (Medical College of Ohio) - Clear cell carcinoma
Ohio (McCullough-Hyde Memorial Hospital) - Clear cell adenocarcinoma
Oklahoma (Tulsa) - Clear cell carcinoma
Pennsylvania (Allegheny General Hospital) - Clear cell carcinoma
Pennsylvania (Centre Community Hospital) - Clear cell adenocarcinoma of the endometrium
Pennsylvania (Conemaugh Memorial Medical Center) - Clear cell carcinoma
Pennsylvania (Drexel University School of Medicine) - Endometrial adenocarcinoma, clear cell type
Pennsylvania (Lehigh Valley Hospital) - Clear cell adenocarcinoma (1); Clear cell carcinoma (1)
Pennsylvania (UPMC Health System) - Clear cell carcinoma of endometrium
Rhode Island (RI Hospital Residents) - Clear cell carcinoma
Texas (ProPath Associates) - Endometrial carcinoma, clear cell type (2)
Texas (Scott & White Memorial Hospital) - Clear cell adenocarcinoma
West Virginia (Greenbrier Valley Medical Center) - Endometrial adenocarcinoma, secretory
Wisconsin (Meriter Hospital) - Clear cell carcinoma
Australia (North Queensland Pathology) - Clear cell carcinoma
Australia (Royal Prince Alfred Hospital) - Clear cell carcinoma
Canada (Foothills Medical Center) - Clear cell carcinoma of endometrium
Hong Kong (Hong Kong Baptist Hospital) - Clear cell adenocarcinoma
Italy (Naples) - Clear cell carcinoma
Jamaica (University Hospital of the West Indies) - Clear cell adenocarcinoma
Japan (Chiba) - Clear cell carcinoma of endometrium
Netherlands (Amsterdam) - Clear cell adenocarcinoma of the endometrium
Qatar (Hamad Medical Corporation) - Clear cell carcinoma endometrium
Saudi Arabia - Clear cell carcinoma

Case 8 - Diagnosis:

Clear cell carcinoma, uterus
 T-82000, M-83103

Case 8 – References:

Lax SE, Pizer ES, Ronnen, BM, et al. Clear Cell Carcinoma of the Endometrium is Characterized by a Distinctive Profile of p53, Ki-67, Estrogen and Progesterone Receptor Expression. *Hum Pathol* 1998; 29(6):551-558.
 Schwartz DR, Kardia SL, Shedden KA, et al. Gene Expression In Ovarian Cancer Reflects Both Morphology and Biological Behavior, Distinguishing Clear Cell from Other Poor-Prognosis Ovarian Carcinomas. *Cancer Res* 2002; 62(16):4722-4729.

Malpica A, Tornos C, Burke TW, et al. Low Stage Clear-Cell Carcinoma of the Endometrium. *Am J Surg Pathol* 1995; 19(7):769-774.

Patsner B. Late Recurrence of a Uterine Clear Cell Adenocarcinoma Confined to an Endometrial Polyp. Case Report. *Eur J Gynaecol Oncol* 1998; 19(6):522-523.

Vang R, Whitaker BP, Farhood AI, et al. Immunohistochemical Analysis of Clear Cell Carcinoma of the Gynecologic Tract. *Int J Gynecol Pathol* 2001; 20(3):252-259.

Matias-Guiu X, Lerma E, Prat J, et al. Clear Cell Tumors of the Female Genital Tract. *Semin Diagn Pathol* 1997; 14(4):233-239.

Case No. 9, Accession No. 14869

January 2004

Alameda (Alameda County Medical Center) - Carcinosarcoma (malignant mixed mullerian tumor)

Bakersfield - Malignant mesodermal mixed tumor

Baldwin Park (Kaiser Permanente) - Malignant mixed mullerian tumor (3)

Hayward/Fremont - Malignant mixed mullerian tumor (carcinosarcoma), uterus

Irvine (UC Davis Medical Center) - Mixed malignant mullerian tumor

Laguna Beach (South Coast Medical Center) - Malignant mixed mullerian tumor

Loma Linda (Loma Linda University Residents) - High grade endometrial sarcoma, favor mullerian adenosarcoma

Long Beach (Lakewood Regional Medical Center) - Malignant mixed mullerian tumor (carcinosarcoma) (9)

Monterey (Community Hospital of Monterey Peninsula) - Uterine sarcoma

Mountain View (El Camino Pathology Group, Inc.) - Malignant mixed mullerian tumor (carcinosarcoma)

Oakland (Kaiser Permanente) - Malignant mixed mullerian tumor (carcinosarcoma) (4); Adenosarcoma (1)

Orange (Orange County Pathology Medical Group) - Malignant mixed mullerian tumor

Sacramento (UC Davis Medical Center) - Malignant mixed mullerian tumor

San Diego (Naval Medical Center) - High grade endometrial stromal sarcoma

San Francisco (UCSF) - Carcinosarcoma

Santa Rosa (Santa Rosa Memorial Hospital) - Stromal sarcoma vs. carcinosarcoma (1); Carcinosarcoma (1); Malignant mixed mullerian tumor (carcinosarcoma) (1)

Ventura - Carcinosarcoma

Alaska (Alaska Native Medical Center) - Carcinosarcoma/malignant mixed mullerian tumor homogenous (2); Adenosarcoma, high grade (1)

Arizona (Maryvale Medical Center) - Endometrial stromal sarcoma, high grade

Arkansas (University of Arkansas Medical Center) - Adenosarcoma

Colorado (Evergreen) - Malignant mixed mullerian tumor

Colorado (Lutheran Medical Center) - Malignant mixed mullerian tumor

Florida (Tallahassee) - Adenosarcoma

Florida (Winter Haven Hospital) - Adenosarcoma

Illinois - Carcinosarcoma

Illinois (Northwestern Memorial Hospital) - High grade sarcoma

Indiana (Kokomo) - Endometrial stromal sarcoma

Louisiana (Louisiana State University Medical Center) - Malignant mixed mullerian tumor vs. undifferentiated sarcoma

Maryland (Johns Hopkins Hospital) - Malignant mixed mullerian tumor

Maryland (National Naval Medical Center) - Adenosarcoma

Massachusetts (Berkshire Medical Center) - Malignant mixed mullerian tumor (homogenous)

Massachusetts (New England Medical Center Residents) - Malignant mixed mullerian tumor

Michigan (Kalamazoo) - High grade endometrial stromal sarcoma

Minnesota (Fairview Southdale Hospital) - Malignant mixed mullerian tumor

Nebraska (Creighton University School of Medicine Residents) - Endometrial stromal tumor vs. adenosarcoma

New Jersey (Overlook Hospital) - Adenosarcoma

New York (Long Island Jewish Medical Center) - Adenosarcoma with heterologous elements

New York (Nassau University Medical Center) - Adenosarcoma

New York (New York) - Malignant mixed mullerian tumor

New York (New York Presbyterian Hospital Residents) - Adenosarcoma sarcomatous overgrowth (8)

New York (Stony Brook University Hospital Residents) - Mullerian adenosarcoma, DDMMMT

North Carolina (Mountain Area Pathology) - Adenosarcoma (4)

Ohio (Medical College of Ohio) - High grade endometrial stromal sarcoma

Ohio (McCullough-Hyde Memorial Hospital) - Stromal sarcoma

Oklahoma (Tulsa) - Malignant mixed mullerian tumor (carcinosarcoma)

Pennsylvania (Allegheny General Hospital) - High grade sarcoma can't exclude mixed mullerian tumor
Pennsylvania (Centre Community Hospital) - Adenosarcoma of the endometrium
Pennsylvania (Conemaugh Memorial Medical Center) - Mixed mullerian tumor
Pennsylvania (Drexel University School of Medicine) - Malignant mixed mesodermal (mullerian) tumor (MMMT) with heterologous elements
Pennsylvania (Lehigh Valley Hospital) - Mixed mesodermal mullerian tumor (1); High grade malignant neoplasm, favor component of malignant mixed mullerian tumor (1)
Pennsylvania (UPMC Health System) - Placental site trophoblastic tumor
Rhode Island (RI Hospital Residents) - Adenosarcoma
Texas (ProPath Associates) - Adenosarcoma (2)
Texas (Scott & White Memorial Hospital) - Carcinosarcoma (MMMT)
West Virginia (Greenbrier Valley Medical Center) - Endometrial sarcoma, high grade
Wisconsin (Meriter Hospital) - Malignant mixed mullerian tumor
Australia (North Queensland Pathology) - Carcinosarcoma
Australia (Royal Prince Alfred Hospital) - Carcinosarcoma
Canada (Foothills Medical Center) - High grade endometrial sarcoma
Hong Kong (Hong Kong Baptist Hospital) - Undifferentiated endometrial sarcoma
Italy (Naples) - Malignant mixed mullerian tumor
Jamaica (University Hospital of the West Indies) - High grade endometrial stromal tumor
Japan (Chiba) - Malignant mesodermal mixed tumor of uterus, homologous type
Netherlands (Amsterdam) - Carcinosarcoma
Qatar (Hamad Medical Corporation) - High grade sarcoma of probably mullerian origin
Saudi Arabia - Mullerian adenosarcoma

Case 9 - Diagnosis:

Malignant mixed mullerian tumor ("carcinosarcoma"), uterus
 T-82000, M-89803

Case 9 – References:

Watanabe M, Shimizu K, Kato H, et al. Carcinosarcoma of the Uterus. Immunohistochemical and Genetic Analysis of Clonality of One Case. *Gynecol Oncol* 2001; 82(3):563-567.
 Wada H, Enomoto T, Fujita M, et al. Molecular Evidence that Most but Not All Carcinosarcomas of the Uterus are Combination Tumors. *Cancer Res* 1997; 57(23):5379-5385.
 Yamada SD, Burger RA, Brewster WR, et al. Pathologic Variables and Adjuvant Therapy as Predictors of Recurrence and Survival for Patients with Surgically Evaluated Carcinosarcoma of the Uterus. *Cancer* 2000; 88(12):2782-2786.
 Evans MJ, Langlois NE, Kitchener HC, et al. Is There an Association Between Long-Term Tamoxifen Treatment and the Development of Carcinosarcoma (Malignant Mixed Mullerian Tumor) of the Uterus. *Int J Gynecol Cancer* 1995; 5(4):310-313.

Case No. 10, Accession No. 29267

January 2004

Alameda (Alameda County Medical Center) - Sarcoma (rhabdomyosarcoma vs. malignant fibrous histiocytoma)
Bakersfield - Leiomyosarcoma
Baldwin Park (Kaiser Permanente) - High grade sarcoma (2); Epithelioid leiomyosarcoma (epithelioid GIST) (1)
Hayward/Fremont - Leiomyosarcoma, metastatic from uterus
Irvine (UC Davis Medical Center) - Leiomyosarcoma
Laguna Beach (South Coast Medical Center) - Leiomyosarcoma
Loma Linda (Loma Linda University Residents) - Leiomyosarcoma
Long Beach (Lakewood Regional Medical Center) - Leiomyosarcoma (9)
Mountain View (El Camino Pathology Group, Inc.) - Leiomyosarcoma, epithelioid type
Oakland (Kaiser Permanente) - Epithelioid leiomyosarcoma, high grade (5)
Orange (Orange County Pathology Medical Group) - Leiomyosarcoma
Sacramento (UC Davis Medical Center) - Leiomyosarcoma
San Diego (Naval Medical Center) - High grade leiomyosarcoma
San Francisco (UCSF) - Rhabdomyosarcoma, high grade
Santa Rosa (Santa Rosa Memorial Hospital) - Leiomyosarcoma (3)
Ventura - Pleomorphic malignant fibrous histiocytoma

Alaska (Alaska Native Medical Center) - Epithelioid leiomyosarcoma
Arizona (Maryvale Medical Center) - Angiosarcoma
Arkansas (University of Arkansas Medical Center) - Sarcoma
Colorado (Evergreen) - Epithelioid leiomyosarcoma
Colorado (Lutheran Medical Center) - Leiomyosarcoma
Florida (Tallahassee) - Malignant fibrous histiocytoma
Florida (Winter Haven Hospital) - Leiomyosarcoma
Illinois - Uterine sarcoma
Illinois (Northwestern Memorial Hospital) - High grade stromal sarcoma
Indiana (Kokomo) - Pancreatic carcinoma ?
Louisiana (Louisiana State University Medical Center) - Epithelioid leiomyosarcoma
Maryland (Johns Hopkins Hospital) - Malignant fibrous histiocytoma
Maryland (National Naval Medical Center) - High grade sarcoma
Massachusetts (Berkshire Medical Center) - Leiomyosarcoma
Massachusetts (New England Medical Center Residents) - Carcinosarcoma
Michigan (Kalamazoo) - Leiomyosarcoma
Nebraska (Creighton University School of Medicine Residents) - Leiomyosarcoma
New Jersey (Overlook Hospital) - Sarcoma, NOS, probably leiomyosarcoma
New York (Long Island Jewish Medical Center) - Leiomyosarcoma
New York (Nassau University Medical Center) - Leiomyosarcoma
New York (New York) - High grade sarcoma consistent with leiomyosarcoma
New York (New York Presbyterian Hospital Residents) - Leiomyosarcoma (8)
New York (Stony Brook University Hospital Residents) - High grade endometrial stromal sarcoma
North Carolina (Mountain Area Pathology) - Leiomyosarcoma (4)
Ohio (Medical College of Ohio) - Epithelioid leiomyosarcoma
Ohio (McCullough-Hyde Memorial Hospital) - Leiomyosarcoma
Oklahoma (Tulsa) - Leiomyosarcoma
Pennsylvania (Allegheny General Hospital) - High grade leiomyosarcoma
Pennsylvania (Centre Community Hospital) - High-grade leiomyosarcoma
Pennsylvania (Drexel University School of Medicine) - Epithelioid leiomyosarcoma
Pennsylvania (Lehigh Valley Hospital) - High grade sarcoma (1); Leiomyosarcoma (1)
Pennsylvania (UPMC Health System) - Malignant fibrous histiocytoma, high grade sarcoma
Rhode Island (RI Hospital Residents) - Epithelioid leiomyosarcoma or high-grade endometrial stromal sarcoma (undifferentiated endometrial sarcoma)
Texas (Propath Associates) - Carcinosarcoma with rhabdomyosarcoma features mullerian tumor (1); Carcinoma with rhabdo (1)
Texas (Scott & White Memorial Hospital) - Leiomyosarcoma
West Virginia (Greenbrier Valley Medical Center) - Malignant fibrohistiocytoma
Wisconsin (Meriter Hospital) - Sarcoma with muscular differentiation
Australia (North Queensland Pathology) - Pleomorphic sarcoma vs. rhabdoid leiomyosarcoma
Australia (Royal Prince Alfred Hospital) - Epithelioid leiomyosarcoma
Canada (Foothills Medical Center) - Metastatic leiomyosarcoma
Hong Kong (Hong Kong Baptist Hospital) - Epithelioid leiomyosarcoma
Italy (Naples) - High grade sarcoma, NOS
Jamaica (University Hospital of the West Indies) - Leiomyosarcoma
Japan (Chiba) - Pleomorphic rhabdomyosarcoma
Netherlands (Amsterdam) - High grade undifferentiated sarcoma
Qatar (Hamad Medical Corporation) - Leiomyosarcoma
Saudi Arabia - Leiomyosarcoma

Case 10 - Diagnosis:

High grade mesenchymal neoplasm consistent with stromal sarcoma, uterus
 T-82000, M-89303

Case 10 - References:

McCluggage WG, Sumathi VP and Maxwell P. CD10 is a Sensitive and Diagnostically Useful Immunohistochemical Marker of Normal Endometrial Stroma and of Endometrial Stromal Neoplasms. *Histopathol* 2001; 39(3):273-278.
 Oliva E, Clement PB and Young RH. Endometrial Stromal Tumors. An Update on a Group of Tumors with a Protean Phenotype. *Adv Anat Pathol* 2000; 7(5):257-281.

Miturski R, Semezuk A and Jakowichi JA. Expression of ras p21 in the Stromal Cells of Human Neoplastic Endometrium. *Eur J Gynaecol Oncol* 1998; 19(3):308-311.

Koontz JI, Soreng AL, Nucci M, et al. Frequent Fusion of the JAZF1 and JJAZ1 Genes In Endometrial Stromal Tumors. *Proc Natl Acad Sci* 2001; 98(11):6348-6353.

Blom R, Malmstrom and Guerrieri C. Endometrial Stromal Sarcoma of the Uterus. A Clinicopathologic, DNA Flow Cytometric, p53, and mdm-2 Analysis of 17 Cases. *Int J Gynecol Cancer* 1999; 9(2):98-104.

Case No. 10b Accession No. 22744
(substitute for Case #10 in October's set)

January 2004

Alameda (Alameda County Medical Center) - Littoral cell angioma
Bakersfield - Littoral cell hemangioma
Baldwin Park (Kaiser Permanente) - Littoral cell angioma (2)
Laguna Beach (South Coast Medical Center) - Littoral cell angioma
Monterey (Community Hospital of Monterey Peninsula) - Angiosarcoma
Mountain View (El Camino Pathology Group, Inc.) - Littoral cell angioma
Sacramento (UC Davis Medical Center) - Hemangioma
Santa Rosa (Santa Rosa Memorial Hospital) - Littoral cell angioma (3)
Ventura - Splenic hemangioma
Alaska (Alaska Native Medical Center) - Littoral cell angioma
Arizona (Maryvale Medical Center) - Angiosarcoma
Colorado (Lutheran Medical Center) - Littoral cell angioma
Florida (Winter Haven Hospital) - Hemangioma
Illinois (Northwestern Memorial Hospital) - Littoral cell angioma
Louisiana (Louisiana State University Medical Center) - Splenic hemangioma
Maryland (National Naval Medical Center) - Littoral cell angioma
Massachusetts (Berkshire Medical Center) - Angiosarcoma
Massachusetts (New England Medical Center Residents) - Littoral cell angioma
Nebraska (Creighton University School of Medicine Residents) - Hemangioma
New Jersey (Overlook Hospital) - Littoral cell angioma
New York (Long Island Jewish Medical Center) - Littoral cell angioma
New York (New York) - Littoral angioma of spleen
New York (New York Presbyterian Hospital Residents) - Littoral cell angioma (8)
North Carolina (Mountain Area Pathology) - Littoral cell hemangioma (4)
Ohio (McCullough-Hyde Memorial Hospital) - Peliosis
Oklahoma (Tulsa) - Littoral cell angioma
Pennsylvania (Lehigh Valley Hospital) - Littoral cell angioma (2)
Pennsylvania (UPMC Health System) - Littoral cell angioma
Texas (Propath Associates) - Angiosarcoma of spleen (1); Mixed ?
Texas (Scott & White Memorial Hospital) - Littoral cell angioma
West Virginia (Greenbrier Valley Medical Center) - Angiosarcoma
Canada (Foothills Medical Center) - Littoral cell angioma of spleen
Hong Kong (Hong Kong Baptist Hospital) - Peliosis, spleen
Japan (Chiba) - Littoral cell angioma of spleen
Qatar (Hamad Medical Corporation) - Littoral cell angioma

Case 10b - Diagnosis:

Littoral cell angioma, spleen
T-07000, M-91200

Case 10b – References:

Garvin DF and King FM. Cysts and Nonlymphomatous Tumors of the Spleen. *Pathol Ann (Part 1)* 1981; 16 Pt 1:61-80.

Tang WY, et al. Splenic Littoral Cell Angioma. Not Bacillary Angiomatosis. *Pathol* 1994; 26(3):347.

Falk S, Stutte J, and Frizzers G. Littoral Cell Angioma. A Novel Vascular Lesion Demonstrating Histiocytic Differentiation. *Am J Surg Pathol* 1991; 15(1):1023-1033.

Arber DA, Strickler JG, Chen Y-Y and Weiss LM. Splenic Vascular Tumors. A Histologic, Immunophenotypic and Virologic Study. *Am J Surg Pathol* 1997; 21(7):827-835.