



CALIFORNIA  
TUMOR TISSUE REGISTRY

## *GYNECOLOGICAL PATHOLOGY*

Minutes – Subscription B

September 2012



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

- Well-differentiated osteosarcoma of the jaw bones. A clinicopathologic study of 15 cases. Demicco EG, Deshpande V, et al. *Am J Surg Pathol* 2010; 34:1647-1655.
- Mast cells in gastrointestinal disease. Ramsay DB, Stephen S, et al. *Gastroenterol Hepatol* 2010; 6:772-777
- Adult-type fibrosarcoma. A reevaluation of 163 putative cases diagnosed at a single institution over a 48-year period. *Am J Surg Pathol* 2010; 34: 1504-1513. Bahrami A and Folpe AL.
- Ovarian malignant melanoma. A clinicopathologic study of 5 cases. Ueng-S-H, Pinto MM, et al. *Int J Surg Pathol* 2010; 18:184-192.
- Gastric cardiac polyps. A clinicopathologic study of 330 cases. Melton SD and Genta RM. *Am J Surg Pathol* 2010; 34:1792-1797.

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

## **FILE DIAGNOSES**

**CTTR Subscription B**

**September 2012**

**Case 1:**

Leiomyosarcoma, uterus  
T-82000, M-88900

**Case 2:**

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

**Case 3:**

Mucinous adenocarcinoma, ovary  
T-87000, M-81403

**Case 4:**

Serous (papillary) borderline tumor, ovary  
T-87000, M-80001

**Case 5:**

Papillary serous carcinoma with clear cell features, ovary  
T-87000, M-80503

**Case 6:**

Small cell carcinoma, ovary  
T-87000, M-80413

**Case 7:**

Poorly differentiated sarcoma; endometrial stromal sarcoma vs. leiomyosarcoma, uterus  
T-82000, M-88903

**Case 8:**

Carcinosarcoma/malignant teratoma, ovary  
T-87000, M-89803

**Case 9:**

High grade pleomorphic sarcoma (aka “pleomorphic MFH”), uterus  
T-82000, M-88303

**Case 10:**

Yolk sac carcinoma, ovary  
T-87000, M-90713

Costa Mesa (College Hospital) - Leiomyosarcoma  
Glendale - Leiomyosarcoma  
Orinda (Kaiser Permanente) - Leiomyoma with bizarre nuclei  
San Diego (Naval Medical Center) - Atypical leiomyoma  
Alabama (Cunningham Pathology) - Leiomyosarcoma  
Georgia, Atlanta - Epithelioid leiomyosarcoma  
Illinois (Heartland Regional Medical Center) - Atypical leiomyoma  
Kansas (Peterson Laboratory Services) - Leiomyosarcoma (2)  
Maryland (University of Maryland) - Leiomyosarcoma  
Missouri (Mercy Hospital) - Symplastic leiomyoma  
New York (Buffalo General Hospital) - Atypical (symplastic) leiomyoma  
New York (SUNY Downstate Medical Center) - Leiomyosarcoma  
Ohio (Suma Health System) - High grade sarcoma, favor leiomyosarcoma  
Oregon (Oregon Health Science University) - Leiomyosarcoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Atypical leiomyoma of uterus  
Pennsylvania (Drexel University College of Medicine) - High grade leiomyosarcoma  
Puerto Rico (University of Puerto Rico) - Leiomyosarcoma  
Tennessee, Knoxville - Leiomyosarcoma  
Texas, Crystal Beach - Leiomyosarcoma  
Texas, Lubbock - Leiomyosarcoma  
Wisconsin (Medical Assessment and Consultation SC) - Leiomyosarcoma  
Wisconsin (Medical College of Wisconsin) - Symplastic leiomyoma  
Australia (Royal Prince Alfred Hospital) - Favor leiomyosarcoma  
Australia (The Western Hospital) - Leiomyosarcoma, uterus  
Canada (Pasqua Hospital) - Leiomyosarcoma  
Canada (University of Sherbrooke) - Atypical leiomyoma, uterus  
Ireland (University College Hospital) - Leiomyosarcoma  
Japan (Asahi General Hospital) - Leiomyosarcoma (2)  
Japan (Setagaya-Ku) - Leiomyosarcoma  
Japan (University of Yamanashi) - Leiomyosarcoma  
Saudi Arabia (King Fahad Hospital, Hofuf) - Epithelioid leiomyosarcoma, uterine mass  
Saudi Arabia (King Khalid University) - Leiomyosarcoma of the uterus  
Singapore (Singapore General Hospital) - Epithelioid leiomyosarcoma

**Case 1 - Diagnosis:**

Leiomyosarcoma, uterus  
T-82000, M-88900

Outside Consultation - UCSF, Joseph T. Rabban, M.D. "Leiomyosarcoma."

**Case 1 - References:**

Leiomyosarcoma with osteoclast-like giant cells of the uterus: a case report and literature review. *J Med Assoc Thai* 2010; Apr;93(4): p510-5 Sukpan K; Khunamornpong S; Suprasert P; Siriaunkgul S.  
A clinicopathologic study of uterine smooth muscle tumours of uncertain malignant potential (STUMP). *Ann Acad Med Singapore* 2010; Aug;39(8): p625-8. Ng JS; Han A; Chew SH; Low J.  
Leiomyosarcoma of the uterus with focal rhabdomyosarcomatous differentiation. *Int J Gynecol Pathol* 2004; Apr;23(2): p188-92. Shintaku M; Sekiyama K.  
The treatment of uterine leiomyosarcoma. Results from a 10-year experience (1990-1999) at the Massachusetts General Hospital. *Gynecol Oncol* 2004; Feb;92(2): p648-52 Dinh TA; Oliva EA; Fuller AF; Lee H; Goodman A.

Costa Mesa (College Hospital) - Malignant Brenner tumor  
Glendale - Adult granulosa cell tumor  
Orinda (Kaiser Permanente) - Adult granulosa cell tumor  
San Diego (Naval Medical Center) - Granulosa cell tumor  
Alabama (Cunningham Pathology) - Borderline Brenner tumor  
Georgia, Atlanta - Adult granulosa cell tumor  
Illinois (Heartland Regional Medical Center) - Granulosa cell tumor  
Kansas (Peterson Laboratory Services) - Granulosa cell tumor, luteinized (2)  
Maryland (University of Maryland) - Adult granulosa cell tumor  
Missouri (Mercy Hospital) - Adult granulosa cell tumor  
New York (Buffalo General Hospital) - Adult granulosa cell tumor  
New York (SUNY Downstate Medical Center) - Granulosa cell tumor  
Ohio (Summa Health System) - Adult granulosa cell tumor  
Oregon (Oregon Health Science University) - Granulosa cell tumor  
Pennsylvania (Conemaugh Memorial Medical Center) - Adult granulosa cell tumor of ovary  
Pennsylvania (Drexel University College of Medicine) - Granulosa cell tumor  
Puerto Rico (University of Puerto Rico) - Granulosa cell tumor, adult type  
Tennessee, Knoxville - Adult type granulosa cell tumor  
Texas, Crystal Beach - Granulosa cell tumor  
Texas, Lubbock - Granulosa cell tumor  
Wisconsin (Medical Assessment and Consultation SC) - Adult granulosa cell tumor  
Wisconsin (Medical College of Wisconsin) - Adult granulosa cell tumor  
Australia (Royal Prince Alfred Hospital) - Adult granulosa cell tumor  
Australia (The Western Hospital) - Adult type granulosa cell tumor  
Canada (Pasqua Hospital) - Granulosa cell tumor  
Canada (University of Sherbrooke) - Granulosa cell tumor, adult type, ovary  
Ireland (University College Hospital) - Adult granulosa cell tumor  
Japan (Asahi General Hospital) - Adult granulosa cell tumor (1); Malignant Brenners tumor (1)  
Japan (Setagaya-Ku) - Granulosa cell tumor  
Japan (University of Yamanashi) - Adult type granulosa cell tumor  
Saudi Arabia (King Fahad Hospital, Hofuf) - Adult-type granulosa cell tumor, right ovary  
Saudi Arabia (King Khalid University) - Granulosa cell tumor  
Singapore (Singapore General Hospital) - Adult granulosa cell tumor

**Case 2 - Diagnosis:**

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

**Case 2 - References:**

Cytologic features of granulosa cell tumors in fluids and fine needle aspiration specimens. *Acta Cytol* 2004; May-Jun;48(3): p315-20 Lal A; Bourtsos EP; Nayar R; De Frias DV.  
 Granulosa cell tumor of the ovary: retrospective analysis of 45 cases. *Am J Clin Oncol* 2003; Oct;26(5): p517-21. Uygun K; Aydinler A; Saip P; Basaran M; Tas F; Kocak Z; Dincer M; Topuz E.  
 Luteinized adult granulosa cell tumor--a series of 9 cases: revisiting a rare variant of adult granulosa cell tumor. *Int J Gynecol Pathol* 2011; Sep;30(5): p452-9 Ganesan R; Hirschowitz L; Baltrusaityte I; McCluggage WG  
 Adult granulosa cell tumor of the ovary: fine-needle-aspiration cytology of 10 cases and review of literature. *Diagn Cytopathol* 2008; May;36(5): p297-302. Ali S; Gattuso P; Howard A; Mosunjac MB; Siddiqui MT.  
 Late recurrence of juvenile granulosa cell tumor of the ovary. *Am J Obstet Gynecol* 2004; Jul;191(1): p366-7 Frausto SD; Geisler JP; Fletcher MS; Sood AK.

Costa Mesa (College Hospital) - Sertoli-Leydig cell tumor  
Glendale - Mucinous adenocarcinoma  
Orinda (Kaiser Permanente) - Sertoli cell tumor  
San Diego (Naval Medical Center) - Sertoli Leydig tumor  
Alabama (Cunningham Pathology) - Granulosa cell tumor  
Georgia, Atlanta - Sertoli Leydig cell tumor  
Illinois (Heartland Regional Medical Center) - Adenocarcinoma, endometrioid-type  
Kansas (Peterson Laboratory Services) - Malignant struma ovarii (2)  
Maryland (University of Maryland) - Endometrioid carcinoma  
Missouri (Mercy Hospital) - Mucinous carcinoma, endometrioid  
New York (Buffalo General Hospital) - Sertoli Leydig cell tumor  
New York (SUNY Downstate Medical Center) - Endometrioid carcinoma with sex cord-stromal differentiation  
Ohio (Suma Health System) - Invasive mucinous adenocarcinoma  
Oregon (Oregon Health Science University) - Sertoli Leydig cell tumor with heterologous elements  
Pennsylvania (Conemaugh Memorial Medical Center) - Adenocarcinoma, favor endometrioid carcinoma with mucin secretion  
Pennsylvania (Drexel University College of Medicine) - Mucinous adenocarcinoma, high grade  
Puerto Rico (University of Puerto Rico) - Sertoli Leydig cell tumor  
Tennessee, Knoxville - Clear cell carcinoma  
Texas, Crystal Beach - Mucinous carcinoma  
Texas, Lubbock - Mucinous cystadenocarcinoma  
Wisconsin (Medical Assessment and Consultation SC) - Endometrioid adenocarcinoma  
Wisconsin (Medical College of Wisconsin) - Sertoli cell tumor  
Australia (Royal Prince Alfred Hospital) - Mucinous adenocarcinoma, primary vs. secondary  
Australia (The Western Hospital) - Adenocarcinoma, favoring endometrioid adenocarcinoma of ovary  
Canada (Pasqua Hospital) - Endometrioid carcinoma  
Canada (University of Sherbrooke) - Mucinous adenocarcinoma with clear cell component, ovary  
Ireland (University College Hospital) - Sertoli Leydig cell tumor with heterologous elements (mucinous epithelium)  
Japan (Asahi General Hospital) - Clear cell carcinoma (1); Granulosa cell tumor (1)  
Japan (Setagaya-Ku) - Mucinous adenocarcinoma  
Japan (University of Yamanashi) - Mucinous adenocarcinoma  
Saudi Arabia (King Fahad Hospital, Hofuf) - Endometrioid carcinoma resembling sex cord-stromal tumor, right ovary  
Saudi Arabia (King Khalid University) - Sertoli Leydig cell tumor  
Singapore (Singapore General Hospital) - Surface epithelial tumor of mixed cell types with a mucinous component

**Case 3 - Diagnosis:**

Mucinous adenocarcinoma, ovary  
 T-87000, M-81403

Outside Consultation - UCSF, Charles Zaloudek, M.D. "Endometrioid Adenocarcinoma with Mucinous Differentiation, FIGO grade 1-2."

**Case 3 - References:**

- Natural history and outcome of mucinous carcinoma of the ovary. *Am J Obstet Gynecol* 2011; Nov;205(5): p480.e1-8. Schiavone MB; Herzog TJ; Lewin SN; Deutsch I; Sun X; Burke WM; Wright JD.  
 Mucinous adenocarcinoma involving the ovary: comparative evaluation of the classification algorithms using tumor size and laterality. *J Korean Med Sci* (Korea 2010; Feb;25(2): p220-5. Jung ES; Bae JH; Lee A; Choi YJ; Park JS; Lee KY.  
 HER2 gene amplification in primary mucinous ovarian cancer: a potential therapeutic target. *Histopathology* 2010; Nov;57(5): p763-4. Han CP; Hsu JD; Yao CC; Lee MY; Ruan A; Tyan YS; Yang SF; Chiang H.  
 Anaplastic carcinoma in mucinous ovarian tumors: a clinicopathologic study of 34 cases emphasizing the crucial impact of stage on prognosis, their histologic spectrum, and overlap with sarcomalike mural nodules. *Am J Surg Pathol* 2008; Mar;32(3): p383-9 Provenza C; Young RH; Prat J.  
 Overexpression of CEACAM6 in borderline and invasive mucinous ovarian neoplasms. *Gynecol Oncol* 2008; May;109(2): p234-9 Litkouhi B; Litkouhi B; Fleming E; Welch WR; Berkowitz RS; Birrer MJ; Mok SC.

Costa Mesa (College Hospital) - Borderline serous cystadenoma  
Glendale - Serous tumor of low malignant potential  
Orinda (Kaiser Permanente) - Serous cystadenoma  
San Diego (Naval Medical Center) - Serous cystadenoma, borderline  
Alabama (Cunningham Pathology) - Adenofibroma  
Georgia, Atlanta - Serous borderline adenofibroma  
Illinois (Heartland Regional Medical Center) - Papillary serous cystadenoma, with focal atypia  
Kansas (Peterson Laboratory Services) - Serous borderline tumor, non-invasive (2)  
Maryland (University of Maryland) - Borderline serous tumor  
Missouri (Mercy Hospital) - Serous cystadenoma, papillary  
New York (Buffalo General Hospital) - Atypical proliferative (borderline) serous tumor  
New York (SUNY Downstate Medical Center) - Borderline serous tumor  
Ohio (Suma Health System) - Serous cystadenofibroma  
Oregon (Oregon Health Science University) - Serous borderline tumor  
Pennsylvania (Conemaugh Memorial Medical Center) - Serous borderline tumor of ovary  
Pennsylvania (Drexel University College of Medicine) - Serous cystadenofibroma  
Puerto Rico (University of Puerto Rico) - Serous cystadenofibroma  
Tennessee, Knoxville - Serous borderline tumor  
Texas, Crystal Beach - Serous papillary borderline tumor  
Texas, Lubbock - Papillary serous neoplasm of low malignant potential  
Wisconsin (Medical Assessment and Consultation SC) - Serous cystadenofibroma  
Wisconsin (Medical College of Wisconsin) - Cystadenofibroma  
Australia (Royal Prince Alfred Hospital) - Benign serous cystadenoma  
Australia (The Western Hospital) - Benign serous cystadenofibroma, ovary  
Canada (Pasqua Hospital) - Borderline serous carcinoma  
Canada (University of Sherbrooke) - Borderline serous papillary cystadenoma, ovaries  
Ireland (University College Hospital) - Serous borderline tumor  
Japan (Asahi General Hospital) - Serous borderline tumor (1); Serous papillary adenoma (1)  
Japan (Setagaya-Ku) - Serous tumor, borderline  
Japan (University of Yamanashi) - Serous borderline cystadenofibroma  
Saudi Arabia (King Fahad Hospital, Hofuf) - Serous cystadenofibroma with focal proliferation, ovary  
Saudi Arabia (King Khalid University) - Ovarian serous cystadenofibroma  
Singapore (Singapore General Hospital) - Borderline serous tumor with micropapillary features

**Case 4 - Diagnosis:**

Serous (papillary) borderline tumor, ovary  
 T-87000; M-80001

**Case 4 - References:**

Prognostic factors in patients with ovarian serous low malignant potential(borderline) tumors with peritoneal implants. *Oncologist* 2009; Jun;14(6): p591-600. Kane A; Uzan C, et al.  
 Ovarian serous low malignant potential (borderline) tumor--does "micropapillary" matter? *Gynecol Oncol* 2010; Apr;117(1): p1-3. Shih Ie M.  
 Hobnail-like cells in serous borderline tumor do not represent concomitant incipient clear cell neoplasms. *Hum Pathol* 2009; Aug;40(8): p1168-75. Ohishi Y; Oda Y, et al.  
 The development of high-grade serous carcinoma from atypical proliferative (borderline) serous tumors and low-grade micropapillary serous carcinoma: a morphologic and molecular genetic analysis. *Am J Surg Pathol* 2007; Jul;31(7): p1007-12. Dehari R; Kurman RJ; Logani S; Shih Ie M.  
 The pathology of and controversial aspects of ovarian borderline tumours. *Curr Opin Oncol* 2010; Sep;22(5): p462-72. McCluggage WG.

Costa Mesa (College Hospital) - Mucinous cystadenocarcinoma  
Glendale - Clear cell carcinoma  
Orinda (Kaiser Permanente) - Serous carcinoma  
San Diego (Naval Medical Center) - Clear cell carcinoma  
Alabama (Cunningham Pathology) - Serous cystadenocarcinoma  
Georgia, Atlanta - Clear cell carcinoma  
Illinois (Heartland Regional Medical Center) - Adenocarcinoma, clear cell type  
Kansas (Peterson Laboratory Services) - Clear cell carcinoma (2)  
Maryland (University of Maryland) - Clear cell carcinoma  
Missouri (Mercy Hospital) - Serous carcinoma, high grade  
New York (Buffalo General Hospital) - High grade serous carcinoma  
New York (SUNY Downstate Medical Center) - Clear cell carcinoma  
Ohio (Suma Health System) - Serous papillary adenocarcinoma  
Oregon (Oregon Health Science University) - Clear cell carcinoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Clear cell carcinoma of ovary  
Pennsylvania (Drexel University College of Medicine) - Clear cell carcinoma  
Puerto Rico (University of Puerto Rico) - Ovarian mixed high grade serous carcinoma and clear cell carcinoma  
Tennessee, Knoxville - Clear cell carcinoma  
Texas, Crystal Beach - Adenocarcinoma, ovary  
Texas, Lubbock - Papillary serous carcinoma  
Wisconsin (Medical Assessment and Consultation SC) - Clear cell adenocarcinoma  
Wisconsin (Medical College of Wisconsin) - Clear cell carcinoma with areas of dedifferentiation  
Australia (Royal Prince Alfred Hospital) - Clear cell carcinoma  
Australia (The Western Hospital) - Clear cell carcinoma (FIGO grade 3), ovary  
Canada (Pasqua Hospital) - Clear cell carcinoma  
Canada (University of Sherbrooke) - Serous papillary carcinoma with clear cells, ovary  
Ireland (University College Hospital) - Mucinous cystadenocarcinoma  
Japan (Asahi General Hospital) - Clear cell carcinoma (1); Mucinous cystadenocarcinoma (1)  
Japan (Setagaya-Ku) - Clear cell carcinoma  
Japan (University of Yamanashi) - Clear cell adenocarcinoma  
Saudi Arabia (King Fahad Hospital, Hofuf) - Clear cell carcinoma, right ovary  
Saudi Arabia (King Khalid University) - Clear cell carcinoma of the ovary  
Singapore (Singapore General Hospital) - Clear cell carcinoma

**Case 5 - Diagnosis:**

Papillary serous carcinoma with clear cell features, ovary  
T-87000, M-80503

**Case 5 - References:**

Ovarian clear cell carcinoma with papillary features: a potential mimic of serous tumor of low malignant potential. *Am J Surg Pathol*; 2008; Feb;32(2): p269-74. Sangoi AR; Soslow RA; Teng NN; Longacre TA.  
Morphologic spectrum of immunohistochemically characterized clear cell carcinoma of the ovary: a study of 155 cases. *Am J Surg Pathol* 2011; Jan;35(1): p36-44. De Lair D; Oliva E; Kobel M; Macias A; Gilks CB; Soslow RA.  
Hobnail-like cells in serous borderline tumor do not represent concomitant incipient clear cell neoplasms. *Hum Pathol* 2009; Aug;40(8): p1168-75. Ohishi Y; Oda Y, et al.

Costa Mesa (College Hospital) - Lymphoma  
Glendale - Poorly differentiated Sertoli-Leydig tumor  
Orinda (Kaiser Permanente) - Small cell carcinoma of ovary, hypercalcemic type  
San Diego (Naval Medical Center) - Small cell carcinoma of hypercalcemic type  
Alabama (Cunningham Pathology) - Sertoli-Leydig cell tumor

Georgia, Atlanta - Small cell carcinoma of hypercalcemic type  
Illinois (Heartland Regional Medical Center) - Small cell carcinoma, hypercalcemic type  
Kansas (Peterson Laboratory Services) - Diffuse large B-cell lymphoma (1); Lymphoma, high grade (1)  
Maryland (University of Maryland) - Small cell carcinoma of hypercalcemic type  
Missouri (Mercy Hospital) - Small cell carcinoma  
New York (Buffalo General Hospital) - Small cell carcinoma of the ovary with hypercalcemia  
New York (SUNY Downstate Medical Center) - Small cell carcinoma, hypercalcemic type  
Ohio (Suma Health System) - Small cell carcinoma, hypercalcemic type  
Oregon (Oregon Health Science University) - Hypercalcemic small cell carcinoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Small cell carcinoma of ovary, hypercalcemic type  
Pennsylvania (Drexel University College of Medicine) - Small cell carcinoma, hypercalcemic type  
Puerto Rico (University of Puerto Rico) - Small cell carcinoma, hypercalcemic type  
Tennessee, Knoxville - Small cell carcinoma, hypercalcemic type  
Texas, Crystal Beach - Neuroendocrine carcinoma  
Texas, Lubbock - Desmoplastic small cell carcinoma  
Wisconsin (Medical Assessment and Consultation SC) - Small cell carcinoma, hypercalcemic type  
Wisconsin (Medical College of Wisconsin) - Small cell carcinoma, hypercalcemic type  
Australia (Royal Prince Alfred Hospital) - Small cell carcinoma, hypercalcemic type  
Australia (The Western Hospital) - Small cell carcinoma of ovary, hypercalcemic type  
Canada (Pasqua Hospital) - Small cell carcinoma, hypercalcemic type  
Canada (University of Sherbrooke) - Small cell carcinoma, hypercalcemic type, ovary  
Ireland (University College Hospital) - Small cell carcinoma, hypercalcemic type  
Japan (Asahi General Hospital) - Small cell carcinoma, hypercalcemic type (1); Dysgerminoma (1)  
Japan (Setagaya-Ku) - Small cell carcinoma  
Japan (University of Yamanashi) - Small cell carcinoma, hypercalcemic type  
Saudi Arabia (King Fahad Hospital, Hofuf) - Small cell carcinoma, hypercalcemic type, right ovary  
Saudi Arabia (King Khalid University) - Hypercalcemic type, small cell carcinoma of ovary  
Singapore (Singapore General Hospital) - Small cell carcinoma with hypercalcemia

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

Small cell carcinoma, ovary  
 T-87000, M-80413

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

Ovarian small cell carcinoma of the hypercalcemic type in children and adolescents: a prognostically unfavorable but curable disease. *Cancer* 2006; Nov 1;107(9): p2298-306. Distelmaier F; Calaminus G. et al.  
 Ovarian neoplasms composed of small round cells: a review. *Adv Anat Pathol* 2004; Nov;11(6): p288-96. McCluggage WG.  
 An immunohistochemical analysis of ovarian small cell carcinoma of hypercalcemic type. *Int J Gynecol Pathol* 2004; Oct;23(4): p330-6. McCluggage WG; Oliva E; Connolly LE; McBride HA; Young RH.  
 Ovarian small cell carcinoma of hypercalcaemic-type: history of the disease in a patient who refused treatment...*J Obstet Gynaecol* 2011; May;31(4): p354-6. Benito Reyes V; Martinez Lanao D, et al.  
 Small cell carcinoma of the ovary presenting in a urine cytology specimen: a case report. *Acta Cytol* 2011;55(3): p291-5. Jazaerly T; Jaratli H; Jacques SM; Giordagze T.

#### **Case No. 7, Accession No. 31170**

**September 2012**

Costa Mesa (College Hospital) - Endometrial stromal sarcoma  
Glendale - Endometrial stromal sarcoma  
Orinda (Kaiser Permanente) - Mitotically active leiomyoma vs. leiomyosarcoma  
San Diego (Naval Medical Center) - Endometrial stromal sarcoma, low grade  
Alabama (Cunningham Pathology) - Endometrial stromal sarcoma  
Georgia, Atlanta - Endometrial stromal sarcoma  
Illinois (Heartland Regional Medical Center) - Sarcoma, favor leiomyosarcoma  
Kansas (Peterson Laboratory Services) - Adenosarcoma with stromal overgrowth (1); Adenosarcoma (1)



Maryland (University of Maryland) - Undifferentiated endometrial sarcoma  
Missouri (Mercy Hospital) - Endometrial stromal sarcoma vs. LMS  
New York (Buffalo General Hospital) - Endometrial stromal sarcoma  
New York (SUNY Downstate Medical Center) - Endometrial stromal sarcoma  
Ohio (Summa Health System) - Leiomyosarcoma  
Oregon (Oregon Health Science University) - Endometrial stromal sarcoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Endometrial stromal sarcoma, low grade  
Pennsylvania (Drexel University College of Medicine) - Endometrial stromal sarcoma, high grade  
Puerto Rico (University of Puerto Rico) - Low grade endometrial stromal carcinoma  
Tennessee, Knoxville - Endometrial stromal sarcoma  
Texas, Crystal Beach - Endometrial stromal sarcoma  
Texas, Lubbock - Stromal sarcoma  
Wisconsin (Medical Assessment and Consultation SC) - Undifferentiated stromal sarcoma  
Wisconsin (Medical College of Wisconsin) - Endometrial stromal sarcoma, high grade  
Australia (Royal Prince Alfred Hospital) - Endometrial stromal sarcoma  
Australia (The Western Hospital) - High grade endometrial stromal sarcoma  
Canada (Pasqua Hospital) - Endometrial stromal sarcoma  
Canada (University of Sherbrooke) - Leiomyosarcoma, uterus  
Ireland (University College Hospital) - Endometrial stromal sarcoma  
Japan (Asahi General Hospital) - Low grade endometrial stromal sarcoma (1); Endometrial stromal sarcoma (1)  
Japan (Setagaya-Ku) - Endometrial stromal sarcoma  
Japan (University of Yamanashi) - Endometrial stromal sarcoma, low grade  
Saudi Arabia (King Fahad Hospital, Hofuf) - Low grade endometrial stromal sarcoma, uterine mass  
Saudi Arabia (King Khalid University) - Endometrial stromal sarcoma  
Singapore (Singapore General Hospital) - Endometrial stromal sarcoma

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

Poorly differentiated sarcoma; endometrial stromal sarcoma vs. leiomyosarcoma, uterus  
 T-82000, M-88903

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

High-grade endometrial stromal sarcoma with smooth muscle and skeletal muscle differentiation: report of a case with cytomorphologic and immunocytologic analysis. *Diagn Cytopathol* 2011; Apr;39(4): p301-5. Ohta Y; Suzuki T, et al.  
 Endometrial stromal sarcomas: a review of potential prognostic factors. *Adv Anat Pathol* 2010; Mar;17(2): p113-21. Chew I; Oliva E.  
 A multi-institutional review of outcomes of endometrial stromal sarcoma. *Gynecol Oncol* 2007; Jun;105(3): p630-4. Leath CA; Huh WK, et al.  
 Endometrial stromal sarcomas and related high-grade sarcomas immunohistochemical and molecular genetic study of 31 cases. *Am J Surg Pathol* 2008; Aug;32(8): p1228-38. Kurihara S; Oda Y, et al.  
 The clinicopathologic features of YWHAE-FAM22 endometrial stromal sarcomas: a histologically high-grade and clinically aggressive tumor. *Am J Surg Pathol* 2012; May;36(5): p641-53. Lee CH; Marino-Enriquez A, et al.

#### **Case No. 8, Accession No. 31375**

**September 2012**

Costa Mesa (College Hospital) - Malignant teratoma  
Glendale - Malignant mixed müllerian tumor  
Orinda (Kaiser Permanente) - Sarcoma with cartilaginous differentiation  
San Diego (Naval Medical Center) - Pcoma  
Alabama (Cunningham Pathology) - Malignant teratoma  
Georgia, Atlanta - Adenosquamous carcinoma  
Illinois (Heartland Regional Medical Center) - Transitional cell carcinoma  
Kansas (Peterson Laboratory Services) - Mixed epithelial, malignant Brenner and clear cell carcinoma (1); Carcinosarcoma (1)  
Maryland (University of Maryland) - Carcinosarcoma with heterologous elements

Missouri (Mercy Hospital) - Transitional cell carcinoma consistent with squamous differentiation  
New York (Buffalo General Hospital) - Undifferentiated carcinoma  
New York (SUNY Downstate Medical Center) - Carcinosarcoma  
Ohio (Summa Health System) - Clear cell carcinoma  
Oregon (Oregon Health Science University) - Carcinosarcoma with heterologous elements, high grade  
Pennsylvania (Conemaugh Memorial Medical Center) - Clear cell carcinoma of ovary  
Pennsylvania (Drexel University College of Medicine) - Carcinosarcoma  
Puerto Rico (University of Puerto Rico) - Clear cell adenocarcinoma  
Tennessee, Knoxville - Malignant mixed mullerian tumor  
Texas, Crystal Beach - Carcinoma primary or metastatic  
Texas, Lubbock - Clear cell carcinoma  
Wisconsin (Medical Assessment and Consultation SC) - Carcinosarcoma  
Wisconsin (Medical College of Wisconsin) - Malignant Brenner tumor  
Australia (Royal Prince Alfred Hospital) - Carcinosarcoma  
Australia (The Western Hospital) - Malignant mixed mullerian tumor (MMMT), ovary  
Canada (Pasqua Hospital) - MMMT  
Canada (University of Sherbrooke) - Malignant mixed mullerian tumor, ovary  
Ireland (University College Hospital) - Carcinosarcoma  
Japan (Asahi General Hospital) - Mature cystic teratoma with squamous cell carcinoma (1); Clear cell adenocarcinoma (1)  
Japan (Setagaya-Ku) - Clear cell carcinoma  
Japan (University of Yamanashi) - Carcinosarcoma  
Saudi Arabia (King Fahad Hospital, Hofuf) - Carcinosarcoma (malignant mixed mullerian tumor), left ovary  
Saudi Arabia (King Khalid University) - Undifferentiated ovarian carcinoma  
Singapore (Singapore General Hospital) - Malignant mullerian mixed tumor (carcinosarcoma)

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

Carcinosarcoma/Malignant teratoma, ovary  
 T-87000, M-89803

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

Carcinosarcoma of the ovary: a review of the literature. *Gynecol Oncol* 2012; Apr;125(1): p271-7. del Carmen MG; Birrer M; Schorge JO.  
 Carcinosarcoma of the ovary: 19 years of prospective data from a single center. *Cancer* 2004; May 15;100(10): p2148-53. Brown E; Stewart Met al.  
 Carcinosarcomas (malignant mullerian mixed tumors) of the uterus and ovary: a genetic study with special reference to histogenesis. *Int J Gynecol Pathol* 2003; Oct;22(4): p368-73. Jin Z; Ogata S; Tamura G; Katayama Y; Fukase M; Yajima M; Motoyama T.  
 Malignant mixed mullerian tumor with malignant neuroectodermal components(teratoid carcinosarcoma) of the ovary: Report of a case with clinicopathologic findings. *J Obstet Gynaecol Res* 2010; Aug;36(4): p907-11. Matsuura Y; Kitajima M; Hachisuga T; Tanimoto A; Okura N; Kihara I.  
 Primary ovarian carcinosarcoma: a case report and review of the literature. *Eur J Gynaecol Oncol* 2004;;25(5): p653-6. Varas M; Akrivis Ch; Antoniou N; Tolis C; Stefanaki S; Salamalekis E.  
 Metastatic malignant melanoma arising in a mature ovarian cystic teratoma: a case report and literature review. *Int J Gynecol Cancer* 2005; Nov-Dec;15(6): p1148-52. McNeilage LJ; Morgan J; Constable J; Jobling TW.

#### **Case No. 9, Accession No. 30537**

**September 2012**

Costa Mesa (College Hospital) - Stromal sarcoma  
Glendale - Malignant fibrous histiocytoma  
Orinda (Kaiser Permanente) - Osteoclast-like giant cell tumor  
San Diego (Naval Medical Center) - Osteoclast-like giant cell tumor  
Alabama (Cunningham Pathology) - Leiomyosarcoma  
Georgia, Atlanta - Undifferentiated stromal sarcoma

Illinois (Heartland Regional Medical Center) - Poorly differentiated sarcoma (containing reactive osteoclast-like giant cells)

Kansas (Peterson Laboratory Services) - Pleomorphic high grade sarcoma (1); Undifferentiated high grade sarcoma (1)

Maryland (University of Maryland) - Rhabdomyosarcoma vs. undifferentiated sarcoma, uterine primary vs. metastatic

Missouri (Mercy Hospital) - Malignant fibrous histiocytoma

New York (Buffalo General Hospital) - Malignant fibrous histiocytoma

New York (SUNY Downstate Medical Center) - Pleomorphic sarcoma

Ohio (Summa Health System) - Mixed malignant müllerian tumor

Oregon (Oregon Health Science University) - High grade malignancy favor sarcomatoid carcinoma with osteoclastic giant cells

Pennsylvania (Conemaugh Memorial Medical Center) - Anaplastic sarcoma of uterus, favor malignant fibrous histiocytoma

Pennsylvania (Drexel University College of Medicine) - High grade pleomorphic sarcoma

Puerto Rico (University of Puerto Rico) - Giant cell malignant histiocytoma

Tennessee, Knoxville - Malignant fibrous histiocytoma

Texas, Crystal Beach - Carcinoma consistent with granulomatous reaction

Texas, Lubbock - Rhabdomyosarcoma

Wisconsin (Medical Assessment and Consultation SC) - Malignant fibrous histiocytoma

Wisconsin (Medical College of Wisconsin) - Leiomyosarcoma with prominent osteoclast-like giant cells

Australia (Royal Prince Alfred Hospital) - Undifferentiated sarcoma

Australia (The Western Hospital) - Malignant fibrous histiocytoma, uterus

Canada (Pasqua Hospital) - Undifferentiated sarcoma

Canada (University of Sherbrooke) - Malignant osteoclast-like giant cell tumor, uterus

Ireland (University College Hospital) - Malignant fibrous histiocytoma

Japan (Asahi General Hospital) - Malignant fibrous histiocytoma (2)

Japan (Setagaya-Ku) - Rhabdomyosarcoma

Japan (University of Yamanashi) - Undifferentiated endometrial sarcoma

Saudi Arabia (King Fahad Hospital, Hofuf) - High grade sarcoma with osteoclastic giant cells, uterine mass

Saudi Arabia (King Khalid University) - Malignant fibrous histiocytoma

Singapore (Singapore General Hospital) - Undifferentiated pleomorphic sarcoma (malignant fibrous histiocytoma)

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

High grade pleomorphic sarcoma (aka “pleomorphic MFH”), uterus  
T-82000, M-88303

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

Uterine sarcomas: a review. *Gynecol Oncol* 2010; Jan;116(1): p131-9. D'Angelo E; Prat J.

Undifferentiated pleomorphic sarcoma of the broad ligament. *Pathologica* 2008; Dec;100(6): p478-81. Bouraoui S; Mlika M; Blal A; Kamoun H; Mzabi-Regaya S.

Aspiration cytology of malignant fibrous histiocytoma after radiation therapy for carcinoma of the uterine cervix: a case report. *Acta Cytol* 2004; Nov-Dec;48(6): p859-63. Arai T; Jobo T; Kawaguchi M; Kuramoto H.

Classification of pleomorphic sarcomas: where are we now? *Histopathology* 2006; Jan;48(1): p51-62. Dei Tos AP.

#### **Case No. 10, Accession No. 17463**

**September 2012**

Costa Mesa (College Hospital) - Yolk sac tumor

Glendale - Yolk sac tumor

Orinda (Kaiser Permanente) - Yolk sac tumor

San Diego (Naval Medical Center) - Yolk sac tumor

Alabama (Cunningham Pathology) - Sertoli Leydig cell tumor

Georgia, Atlanta - Yolk sac tumor

Illinois (Heartland Regional Medical Center) - Yolk sac tumor

Kansas (Peterson Laboratory Services) - Yolk sac tumor (2)

Maryland (University of Maryland) - Yolk sac tumor

Missouri (Mercy Hospital) - Juvenile granulosa cell tumor

New York (Buffalo General Hospital) - Yolk sac tumor  
New York (SUNY Downstate Medical Center) - Yolk sac tumor  
Ohio (Suma Health System) - Yolk sac tumor  
Oregon (Oregon Health Science University) - Yolk sac tumor  
Pennsylvania (Conemaugh Memorial Medical Center) - Yolk sac tumor of ovary  
Pennsylvania (Drexel University College of Medicine) - Yolk sac tumor  
Puerto Rico (University of Puerto Rico) - Yolk sac tumor  
Tennessee, Knoxville - Yolk sac tumor  
Texas, Crystal Beach - Juvenile granulosa cell tumor  
Texas, Lubbock - Yolk sac tumor  
Wisconsin (Medical Assessment and Consultation SC) - Yolk sac (endodermal sinus) tumor  
Wisconsin (Medical College of Wisconsin) - Yolk sac tumor  
Australia (Royal Prince Alfred Hospital) - Yolk sac tumor  
Australia (The Western Hospital) - Yolk sac tumor, ovary  
Canada (Pasqua Hospital) - Yolk sac tumor  
Canada (University of Sherbrooke) - Yolk sac tumor, ovary  
Ireland (University College Hospital) - Yolk sac tumor  
Japan (Asahi General Hospital) - Yolk sac tumor (2)  
Japan (Setagaya-Ku) - Yolk sac tumor  
Japan (University of Yamanashi) - Yolk sac tumor  
Saudi Arabia (King Fahad Hospital, Hofuf) - Yolk sac tumor, right ovary  
Saudi Arabia (King Khalid University) - Embryonal carcinoma  
Singapore (Singapore General Hospital) - Yolk sac tumor

**Case 10 - Diagnosis:**

Yolk sac carcinoma, ovary  
 T-87000, M-90713

**Case 10 - References:**

Ovarian yolk sac tumor associated with endometrioid carcinoma and mucinous cystadenoma of the ovary. *Ann Diagn Pathol* 2003; Oct;7(5): p300-5. Lopez JM; Malpica A; Deavers MT; Ayala AG.  
 Yolk sac tumours of the ovary: an update. *Eur J Surg Oncol* 2006; Dec;32(10): p1063-75. Dallenbach P; Bonnefoi H; Pelte MF; Vlastos G.  
 Solid pattern yolk sac tumor: a morphologic and immunohistochemical study of 52 cases. *Am J Surg Pathol* 2012; Mar;36(3): p360-7. Kao CS; Idrees MT; Young RH; Ulbright TM.  
 Ovarian yolk sac tumor associated with major fibrosarcoma component in a 13-year-old girl. *Int J Gynecol Pathol* 2010; May;29(3): p252-5. Ali L; Bambach BJ; Kozielski R, et al.  
 Ovarian germ cell tumors in children: a 20-year retrospective study in a single institution. *Eur J Gynaecol Oncol* 2011;32(3): p289-92. Yang C; Wang S; Li CC; Zhang J; Kong XR; Ouyang J.  
 Prognostic factors in women treated for ovarian yolk sac tumour: a retrospective analysis of 84 cases. *Eur J Cancer* 2011; Jan;47(2): p175-82. de La Motte Rouge T, et al.  
 Krukenberg tumor with yolk sac tumor differentiation. *Int J Gynecol Pathol* 2008; Apr;27(2): p223-8. Zamecnik M; Voltr L; Stuk J; Chlumská A.