



CALIFORNIA
TUMOR TISSUE REGISTRY

GYNECOLOGICAL PATHOLOGY

Minutes – Subscription A

September 2012



SUGGESTED READING (General Topics from Recent Literature):

- Are all pelvic (nonuterine) serous carcinomas of tubal origin? Przbycin CG, Kurman RJ, et al. *Am J Surg Pathol* 2010; 34:1407-1416.
- Epithelioid hemangioma (angiolymphoid hyperplasia with eosinophilia) arising on the extremities. Cham E, Smoller BR, et al. *J Cutan Pathol* 2010; 37: 1045-1052.
- Micronodular thymic carcinoma with lymphoid hyperplasia. A clinicopathological and immunohistochemical study of five cases. Weissferdt A and Moran CA. *Mod Pathol* 2012; 25:993-939.
- Anaplastic large cell lymphoma associated with breast implants. A report of 13 cases. Aladily TN, Medeiros LJ, et al. *Am J Surg Pathol* 2012; 36:1000-1008.
- Characteristics of spitzoid melanoma and clues for differential diagnosis with spitz nevus. Requena C, Botella R, et al. *Am J Dermatopathol* 2012; 34:478-486.
- Gastrointestinal Pathology in celiac disease. A case series of 150 consecutive newly diagnosed patients. Brown IS, Smith J and Rosty C. *Am J Clin Pathol* 2012; 42-49.

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FILE DIAGNOSES

CTTR Subscription A

September 2012

Case 1:

Fibrothecoma, ovary

Case 2:

Granular cell tumor (adult type), ovary

Case 3:

Serous (papillary) borderline tumor, ovary

Case 4:

High grade papillary serous adenocarcinoma, ovaries and uterus

Case 5:

High grade mucinous cystadenocarcinoma with incidental Brenner tumor (not all study sets), ovary

Case 6:

Mesonephric duct remnants with hyperplasia, vaginal apex

Case 7:

Yolk sac tumor, ovary

Case 8:

Malignant mixed ger cell tumor (MMGCT) with embryonal, yolk sac and teratomatous components, right adnexa (ovary and oviduct)

Case 9:

Malignant mixed mullerian tumor (MMMT) carcinosarcoma, uterus

Case 10:

Precursor B-cell lymphoma/leukemia, ovary

Fontana (Kaiser Permanente) - Sclerosing stromal tumor
Glendale - Fibrothecoma
Hayward/Fremont - Thecoma
Lakewood - Fibrothecoma
Long Beach (Long Beach VA Hospital) - Fibrothecoma
Orinda (Kaiser Permanente) - Fibrothecoma
Oxnard (St. John's Regional Medical Center) - Fibrothecoma (2)
Santa Barbara (Miramonte Laboratory) - Leiomyoma
Woodland Hills (Kaiser Permanente) - Fibrothecoma
Arkansas (Associate Pathologists Laboratory) - Fibrothecoma
Colorado (McKee Medical Center) - Fibrothecoma
Colorado (University of Colorado) - Thecoma
Delaware (Armed Forces Medical Examiner System) - Lutenized fibroma-thecoma
Florida (GastroEnterology Associates of Ocala) - Thecoma
Florida (The Pathology Group of NW Florida) - Cellular fibroma
Georgia, Atlanta - Fibrothecoma
Illinois (Heartland Regional Medical Center) - Thecoma
Illinois (Loyola University of Chicago) - Fibrosarcoma
Illinois, Oak Brook - Granulosa cell tumor, diffuse
Maryland (University of Maryland) - Fibrothecoma
Massachusetts (Tufts Medical Center) - Fibrothecoma
Massachusetts (University of Massachusetts Medical Center) - Cellular fibrothecoma
Minnesota (Fairview Ridges Hospital) - Adult granulosa cell tumor
Missouri (Missouri Delta Medical Center) - Fibrothecoma (2)
Nebraska (Creighton University Medical Center) - Fibrothecoma
New York (Buffalo General Hospital) - Fibrothecoma
New York (Erie County Medical Center) - Thecoma/fibroma
New York (SUNY Downstate Medical Center) - Fibrothecoma
Ohio, Union Town - Fibroma
Pennsylvania (Conemaugh Memorial Medical Center) - Cellular fibroma of ovary
Pennsylvania (Drexel University College of Medicine Residents) - Fibrothecoma
Pennsylvania (Lehigh Valley Hospital) - Thecoma
Puerto Rico (University of Puerto Rico) - Fibrothecoma rule out granulosa cell tumor component
South Carolina (Medical University of South Carolina) - Fibroma
Tennessee (Molecular Pathology Laboratory Network) - Fibrothecoma
Texas (Crystal Beach) - Thecoma
Texas, Lubbock - Thecoma
Washington (Seattle VA Medical Center) - Fibroma
West Virginia (Greenbrier Valley Medical Center) - Endometrioid stromal sarcoma
Wisconsin (Medical Center of Wisconsin) - Fibrothecoma
Wisconsin (Medical Assessment of Consultation South Carolina) - Ovarian fibroma (cellular type)
Wisconsin (St. Mary's Hospital) - Solitary fibrous tumor
Australia (Royal Hobart Hospital) - Thecoma/thecofibroma
Australia (The Royal Women's Hospital) - Fibrothecoma, ovary
Australia (Royal Prince Alfred Hospital) - Fibrothecoma
Canada (Jewish General Hospital) - Fibroma/fibrothecoma
Canada (Pasqua Hospital) - Fibroma (cellular)
Canada (University of Sherbrooke) - Fibrothecoma, ovary
Ireland (Bon Secours Hospital) - Thecoma
Ireland (Kerry General Hospital) - Thecoma
Ireland (University College Hospital Residents) - Fibrothecoma
Japan (Asahi General Hospital) - Leiomyoma (1); Fibroma (1)
Japan (Setagaya-Ku) - Leiomyosarcoma
Japan (University of Yamanashi) - Fibrothecoma
Japan (Wakayama Medical University) - Thecoma (2)

Oman (Khoula Hospital) - Thecoma, fibroma
Saudi Arabia (King Fahad Hospital Hofuf) - Fibrothecoma, right ovary
Saudi Arabia (King Khalid University Hospital) - Ovarian fibrothecoma

Case 1 - Diagnosis:

Fibrothecoma, ovary
T-87000, M-86000

Case 1 - References:

Ovarian fibrothecoma: a benign neoplasm with potential adverse consequences. *J Obstet Gynaecol* 2003; Nov;23(6): p677-8. Elghorori MR; Al-Taher H; Redwood NF.
Incidence, clinical analysis, and management of ovarian fibromas and fibrothecomas. *Am J Obstet Gynecol* 2008; Nov;199(5): p473.e1-4. Chechia A; Attia L; Temime RB; Makhlof T; Koubaa A.
Retroperitoneal extraovarian fibrothecoma mimicking a malignant epithelial ovarian carcinoma. *Case Rep Obstet Gynecol* 2012; 2012:281745. Roberts P; Nofech-Mozes S; Coburn N; Hamilton P; Gien LT.
A right ovarian mass in a 71-year-old woman with ascites and elevated CA 125 level. Fibrothecoma of the right ovary. *Arch Pathol Lab Med* 2005; May;129(5): p701-2. Angeles RM; Salem FL; Sirota RL.
Expression of CD56 and WT1 in ovarian stroma and ovarian stromal tumors. *Am J Surg Pathol* 2008; Jun;32(6): p884-90. He H; Luthringer DJ; Hui P; Lau SK; Weiss LM; Chu PG.

Case No. 2, Accession No. 31334

September 2012

Fontana (Kaiser Permanente) - Granulosa cell tumor
Glendale - Transitional cell carcinoma
Hayward/Fremont - Granulosa cell tumor
Lakewood - Adenocarcinoma, NOS
Long Beach (Long Beach VA Hospital) - Sex cord stromal tumor favor sertoli
Orinda (Kaiser Permanente) - Fibroma
Oxnard (St. John's Regional Medical Center) - Luteinized granulosa cell tumor (1); Granulosa cell tumor (1)
Santa Barbara (Miramonte Laboratory) - Adult granulosa cell tumor
Woodland Hills (Kaiser Permanente) - Granulosa cell tumor
Arkansas (Associate Pathologists Laboratory) - Adult granulosa cell tumor
Colorado (McKee Medical Center) - Adult granulosa cell tumor
Colorado (University of Colorado) - Endocervical-type ucinous borderline tumor (seromucinous)
Delaware (Armed Forces Medical Examiner System) - Adult granulosa cell tumor
Florida (GastroEnterology Associates of Ocala) - Serous papillary cystic tumor, borderline malignant
Florida (The Pathology Group of NW Florida) - Adult granulosa cell tumor
Georgia, Atlanta - Sertoli-Leydig cell tumor
Illinois (Heartland Regional Medical Center) - Endometrioid carcinoma
Illinois (Loyola University of Chicago) - Carcinoid tumor
Illinois, Oak Brook - Struma, ovary
Maryland (University of Maryland) - Adult granulosa cell tumor
Massachusetts (Tufts Medical Center) - Granulosa cell tumor
Massachusetts (University of Massachusetts Medical Center) - Adult granulosa cell tumor
Minnesota (Fairview Ridges Hospital) - Endometrioid adenocarcinoma
Missouri (Missouri Delta Medical Center) - Sertoli-Leydig cell tumor (2)
Nebraska (Creighton University Medical Center) - Sex cord tumor with annular tubules
New York (Buffalo General Hospital) - Adult granulosa cell tumor
New York (Erie County Medical Center) - Granulosa cell tumor, adult type
New York (SUNY Downstate Medical Center) - Granulosa cell tumor
Ohio, Union Town - Granulosa cell tumor
Pennsylvania (Conemaugh Memorial Medical Center) - Carcinoid tumor of ovary
Pennsylvania (Drexel University College of Medicine) - Juvenile granulosa cell tumor
Pennsylvania (Lehigh Valley Hospital) - Granulosa cell tumor
Puerto Rico (University of Puerto Rico) - Struma ovarii vs. struma carcinoid

South Carolina (Medical University of South Carolina) - Granulosa cell tumor
Tennessee (Molecular Pathology Laboratory Network) - Adult granulosa cell tumor
Texas (Crystal Beach) - Granulosa cell tumor
Texas, Lubbock - Granulosa cell tumor, microfollicular pattern
Washington (Seattle VA Medical Center) - Sex cord stromal tumor, sertoli
West Virginia (Greenbrier Valley Medical Center) - Endometrioid adenocarcinoma
Wisconsin (Medical Center of Wisconsin) - Adult granulosa cell tumor
Wisconsin (Medical Assessment of Consultation South Carolina) - Adult granulosa cell tumor
Wisconsin (St. Mary's Hospital) - Ovarian stroma sex cord tumor
Australia (Royal Hobart Hospital) - Sertoli-Leydig cell tumor
Australia (The Royal Women's Hospital) - Sex cord stromal tumor, favoring Sertoli-Leydig cell tumor, ovary
Australia (Royal Prince Alfred Hospital) - Favor adult granulosa cell tumor ovary well-differentiated Sertoli-Leydig tumor
Canada (Jewish General Hospital) - Sex-cord tumor (Sertoli type)
Canada (Pasqua Hospital) - Struma ovarii
Canada (University of Sherbrooke) - Granulosa cell tumor, adult type, ovary
Ireland (Bon Secours Hospital) - Carcinoid tumor
Ireland (Kerry General Hospital) - Granulosa cell tumor
Ireland (University College Hospital Residents) - Sertoli cell tumor
Japan (Asahi General Hospital) - Granulosa cell tumor (2)
Japan (Setagaya-Ku) - Granulosa cell tumor
Japan (University of Yamanashi) - Endometrioid adenocarcinoma
Japan (Wakayama Medical University) - Granulosa cell tumor (1); Sertoli-Leydig cell tumor (1)
Oman (Khoula Hospital) - Granulosa cell tumor
Saudi Arabia (King Fahad Hospital Hofuf) - Carcinoid tumor in left ovarian mass
Saudi Arabia (King Khalid University Hospital) - Sertoli-Leydig cell tumor

Case 2 - Diagnosis:

Granular 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.

Case No. 3, Accession No. 31441

September 2012

Fontana (Kaiser Permanente) - Borderline serous tumor
Glendale - Serous tumor of LMP
Hayward/Fremont - Serous papillary carcinoma
Lakewood - Papillary serous cystic adenocarcinoma, LMP
Long Beach (Long Beach VA Hospital) - Serous papillary cystadenoma, low malignant potential
Orinda (Kaiser Permanente) - Mucinous borderline tumor
Oxnard (St. John's Regional Medical Center) - Borderline serous tumor (2)
Santa Barbara (Miramonte Laboratory) - Borderline serous tumor
Woodland Hills (Kaiser Permanente) - Borderline serous tumor
Arkansas (Associate Pathologists Laboratory) - Serous papillary cystic tumor of borderline malignancy

Colorado (McKee Medical Center) - Serous borderline tumor
Colorado (University of Colorado) - Endocervical-type mucinous borderline tumor (seromucinous)
Delaware (Armed Forces Medical Examiner System) - Serous borderline tumor with microinvasion
Florida (GastroEnterology Associates of Ocala) - Mucinous cystadenoma vs. borderline malignancy
Florida (The Pathology Group of NW Florida) - Serous carcinoma, non-invasive
Georgia, Atlanta - Micropapillary serous carcinoma
Illinois (Heartland Regional Medical Center) - Borderline serous papillary tumor
Illinois (Loyola University of Chicago) - Serous borderline tumor
Illinois, Oak Brook - Papillary serous tumor borderline malignancy
Maryland (University of Maryland) - Serous borderline
Massachusetts (Tufts Medical Center) - Serous borderline cystadenoma with micropapillary features
Massachusetts (University of Massachusetts Medical Center) - Borderline serous papillary tumor
Minnesota (Fairview Ridges Hospital) - Serous borderline tumor
Missouri (Missouri Delta Medical Center) - Non-invasive papillary serous tumor, borderline (2)
Nebraska (Creighton University Medical Center) - Borderline serous cystadenoma
New York (Buffalo General Hospital) - Atypical proliferative (borderline) serous tumor
New York (Erie County Medical Center) - Serous papillary cystic tumor, borderline malignancy
New York (SUNY Downstate Medical Center) - Serous borderline tumor
Ohio, Union Town - Proliferating serous tumor
Pennsylvania (Conemaugh Memorial Medical Center) - Serous borderline tumor/serous tumor of low malignant potential of ovary
Pennsylvania (Drexel University College of Medicine) - Serous papillary cystic tumor of borderline malignancy
Pennsylvania (Lehigh Valley Hospital) - Serous papillary neoplasm of low malignant potential
Puerto Rico (University of Puerto Rico) - Serous borderline tumor
South Carolina (Medical University of South Carolina) - Serous borderline
Tennessee (Molecular Pathology Laboratory Network) - Serous papillary borderline tumor with focal microinvasion
Texas (Crystal Beach) - Papillary serous borderline tumor
Texas, Lubbock - Papillary serous tumor of low malignant potential
Washington (Seattle VA Medical Center) - Cystadenoma, serous borderline
West Virginia (Greenbrier Valley Medical Center) - Borderline serous papillary adenocarcinoma
Wisconsin (Medical Center of Wisconsin) - Borderline serous tumor
Wisconsin (Medical Assessment of Consultation South Carolina) - Serous neoplasm of low malignant potential (borderline serous neoplasm)
Wisconsin (St. Mary's Hospital) - Borderline serous tumor
Australia (Royal Hobart Hospital) - Serous borderline tumor
Australia (The Royal Women's Hospital) - Serous borderline tumor, ovary
Australia (Royal Prince Alfred Hospital) - Serous borderline tumor
Canada (Jewish General Hospital) - Serous borderline tumor
Canada (Pasqua Hospital) - Serous borderline tumor
Canada (University of Sherbrooke) - Serous borderline cystadenoma, ovary
Ireland (Bon Secours Hospital) - Serous borderline tumor
Ireland (Kerry General Hospital) - Borderline serous papillary tumor
Ireland (University College Hospital Residents) - Borderline serous tumor
Japan (Asahi General Hospital) - Serous papillary adenocarcinoma (1); Low grade serous intraepithelial carcinoma (1)
Japan (Setagaya-Ku) - Mucinous cystadenocarcinoma
Japan (University of Yamanashi) - Serous borderline tumor
Japan (Wakayama Medical University) - Serous borderline tumor (2)
Oman (Khoula Hospital) - Borderline papillary serous cystadenoma
Saudi Arabia (King Fahad Hospital Hofuf) - Serous borderline tumor, left ovary
Saudi Arabia (King Khalid University Hospital) - Borderline ovarian serous tumor

Case 3 - Diagnosis:

Serous (papillary) borderline tumor, ovary
 T-87000, M-86201

Case 3 - 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.

Case No. 4, Accession No. 31367

September 2012

Fontana (Kaiser Permanente) - Serous carcinoma
Glendale - Serous carcinoma
Hayward/Fremont - Metastatic carcinoma, favor breast origin
Lakewood - Papillary serous adenocarcinoma
Long Beach (Long Beach VA Hospital) - Serous papillary cystadenocarcinoma
Orinda (Kaiser Permanente) - Serous carcinoma
Oxnard (St. John's Regional Medical Center) - Papillary serous adenocarcinoma (2)
Santa Barbara (Miramonte Laboratory) - Poorly differentiated carcinoma
Woodland Hills (Kaiser Permanente) - High grade serous carcinoma
Arkansas (Associate Pathologists Laboratory) - Malignant Brenner tumor
Colorado (McKee Medical Center) - Serous papillary carcinoma
Colorado (University of Colorado) - High grade serous carcinoma
Delaware (Armed Forces Medical Examiner System) - Invasive serous carcinoma
Florida (GastroEnterology Associates of Ocala) - Endometrial stromal tumor, sarcoma
Florida (The Pathology Group of NW Florida) - Invasive serous carcinoma with lymphovascular invasion
Georgia, Atlanta - Serous carcinoma
Illinois (Heartland Regional Medical Center) - Serous papillary carcinoma
Illinois (Loyola University of Chicago) - Papillary serous carcinoma
Illinois, Oak Brook - Papillary adenocarcinoma with lymphovascular invasion
Maryland (University of Maryland) - Serous carcinoma
Massachusetts (Tufts Medical Center) - Metastatic high grade serous carcinoma
Massachusetts (University of Massachusetts Medical Center) - Serous papillary carcinoma
Minnesota (Fairview Ridges Hospital) - Serous carcinoma with lymphatic invasion vs. metastatic carcinoma
Missouri (Missouri Delta Medical Center) - Invasive papillary and solid serous carcinoma (1); Invasive serous tumor (1)
Nebraska (Creighton University Medical Center) - Metastatic carcinoma
New York (Buffalo General Hospital) - Invasive serous carcinoma
New York (Erie County Medical Center) - Metastatic carcinoma
New York (SUNY Downstate Medical Center) - Serous carcinoma with clear cell changes
Ohio, Union Town - Serous carcinoma in vascular spaces
Pennsylvania (Conemaugh Memorial Medical Center) - Metastatic serous papillary carcinoma
Pennsylvania (Drexel University College of Medicine) - Uterine serous carcinoma
Pennsylvania (Lehigh Valley Hospital) - Serous papillary carcinoma of peritoneum
Puerto Rico (University of Puerto Rico) - Primary peritoneal serous carcinoma vs. metastatic adenocarcinoma
South Carolina (Medical University of South Carolina) - Serous carcinoma
Tennessee (Molecular Pathology Laboratory Network) - Peritoneal serous carcinoma, high grade
Texas (Crystal Beach) - Papillary adenocarcinoma, ovary
Texas, Lubbock - Papillary serous carcinoma
Washington (Seattle VA Medical Center) - Carcinoma, high grade growth
West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma, serous papillary

Wisconsin (Medical Center of Wisconsin) - Serous carcinoma
Wisconsin (Medical Assessment of Consultation South Carolina) - Papillary adenocarcinoma
Wisconsin (St. Mary's Hospital) - Metastatic papillary serous carcinoma
Australia (Royal Hobart Hospital) - High grade serous carcinoma
Australia (The Royal Women's Hospital) - High grade adenocarcinoma favoring serous carcinoma, fallopian tube
Australia (Royal Prince Alfred Hospital) - Serous adenocarcinoma Silverberg, grade 3
Canada (Jewish General Hospital) - Lymphovascular invasion by poorly differentiated carcinoma with papillary features and psammoma bodies (sero-papillary)
Canada (Pasqua Hospital) - Serous carcinoma
Canada (University of Sherbrooke) - Carcinomatosis, ovary
Ireland (Bon Secours Hospital) - Clear cell adenocarcinoma
Ireland (Kerry General Hospital) - Adenocarcinoma arising in mucinous tumor, with background Brenner tumor
Ireland (University College Hospital Residents) - Papillary serous carcinoma
Japan (Asahi General Hospital) - Serous papillary adenocarcinoma (1); High grade serous carcinoma (1)
Japan (Setagaya-Ku) - Serous cystadenocarcinoma
Japan (University of Yamanashi) - Serous adenocarcinoma
Japan (Wakayama Medical University) - Invasive serous micropapillary carcinoma of peritoneum (2)
Oman (Khoulia Hospital) - Malignant epithelial tumor favoring serous carcinoma
Saudi Arabia (King Fahad Hospital Hofuf) - Serous surface papillary adenocarcinoma of ovary
Saudi Arabia (King Khalid University Hospital) - Endometrial adenocarcinoma, serous type

Case 4 - Diagnosis:

High grade papillary serous adenocarcinoma, ovaries and uterus
 T-82000, M-84613

Case 4 - References:

Papillary serous carcinoma in ovaries of normal size: a clinicopathologic study of 20 cases and comparison with extraovarian peritoneal papillary serous carcinoma. *Gynecol Oncol* 2007; Jun;105(3): p762-8. Choi CH; Kim TJ; Kim WY; Ahn GH; Lee JW; Kim BG; Lee JH; Bae DS.
 High-grade serous carcinoma of the ovary. *Ann Diagn Pathol* 2009; Aug;13(4): p285-9. Westfall D; Roma AA; Silva EG.
 Rapidly increasing incidence of papillary serous carcinoma of the peritoneum in the United States: fact or artifact? *Int J Cancer* 2009; May 1;124(9): p2231-5. Goodman MT; Shvetsov YB.
 PAX 2: a novel Mullerian marker for serous papillary carcinomas to differentiate from micropapillary breast carcinoma. *Int J Gynecol Pathol* 2009; Nov;28(6): p570-8. Chivukula M; Dabbs DJ; O'Connor S; Bhargava R.

Case No. 5, Accession No. 31390

September 2012

Fontana (Kaiser Permanente) - Mixed mucinous carcinoma and Brenner tumor
Glendale - Mixed mucinous carcinoma and malignant Brenner tumor
Hayward/Fremont - Malignant Brenner tumor
Lakewood - Malignant mixed mullerian tumor (MMMT)
Long Beach (Long Beach VA Hospital) - Malignant mixed Mullerian tumor
Orinda (Kaiser Permanente) - Malignant mesodermal mixed tumor
Oxnard (St. John's Regional Medical Center) - Brenner tumor and high grade carcinoma i.e. serous vs. clear cell (2)
Santa Barbara (Miramonte Laboratory) - Brenner tumor with high grade carcinoma, possibly metastatic
Woodland Hills (Kaiser Permanente) - Carcinosarcoma arising in association with Brenner tumor
Arkansas (Associate Pathologists Laboratory) - Poorly differentiated mucinous carcinoma/Brenner tumor
Colorado (McKee Medical Center) - Invasive serous carcinoma and Brenner tumor
Colorado (University of Colorado) - Mucinous carcinoma with mural nodule of anaplastic carcinoma in association with benign Brenner tumor
Delaware (Armed Forces Medical Examiner System) - Malignant Brenner tumor
Florida (GastroEnterology Associates of Ocala) - Mucinous cystadenocarcinoma
Florida (The Pathology Group of NW Florida) - Malignant Brenner tumor with a component of poorly differentiated adenocarcinoma

Georgia, Atlanta - High grade serous carcinoma
Illinois (Heartland Regional Medical Center) - Malignant Brenner tumor
Illinois (Loyola University of Chicago) - Mucinous nodular neoplasm associated with Brenner tumor
Illinois, Oak Brook - Poorly differentiated adenocarcinoma with residual Brenner tumor
Maryland (University of Maryland) - Malignant Brenner tumor
Massachusetts (Tufts Medical Center) - Mucinous adenocarcinoma and benign Brenner tumor
Massachusetts (University of Massachusetts Medical Center) - Mixed epithelial tumor
Minnesota (Fairview Ridges Hospital) - Mucinous carcinoma with mural nodules (sarcoma-like and anaplastic carcinoma) Brenner tumor
Missouri (Missouri Delta Medical Center) - Malignant Brenner cell tumor (1); Brenner tumor consistent with admixed malignant Brenner tumor (1)
Nebraska (Creighton University Medical Center) - Malignant Brenner
New York (Buffalo General Hospital) - High grade serous carcinoma with Brenner tumor
New York (Erie County Medical Center) - Benign Brenner and mucinous adenocarcinoma
New York (SUNY Downstate Medical Center) - Mucinous carcinoma with malignant Brenner tumor
Ohio, Union Town - Malignant Brenner tumor with a teratoma
Pennsylvania (Conemaugh Memorial Medical Center) - Serous papillary carcinoma of ovary
Pennsylvania (Drexel University College of Medicine) - Mixed epithelial tumor
Pennsylvania (Lehigh Valley Hospital) - Malignant Brenners tumor
Puerto Rico (University of Puerto Rico) - Malignant Brenner tumor
South Carolina (Medical University of South Carolina) - Malignant Brenner tumor
Tennessee (Molecular Pathology Laboratory Network) - Ovarian endometrioid adenocarcinoma and malignant Brenner tumor in a background of benign Brenner tumor
Texas (Crystal Beach) - Malignant Brenner tumor
Texas, Lubbock - Brenner tumor with mixed serous and mucinous carcinoma
Washington (Seattle VA Medical Center) - Carcinoma, mucinous and Brenner tumor
West Virginia (Greenbrier Valley Medical Center) - Malignant transitional cell tumor (malignant Brenner)
Wisconsin (Medical Center of Wisconsin) - Malignant Brenner tumor
Wisconsin (Medical Assessment of Consultation South Carolina) - High grade adenocarcinoma, also benign Brenner tumor
Wisconsin (St. Mary's Hospital) - Metastatic mucin producing adenocarcinoma and Brenners tumor
Australia (Royal Hobart Hospital) - Anaplastic carcinoma arising in a mucinous tumor/Brenner tumor of ovary
Australia (The Royal Women's Hospital) - MMT, Brenner's tumor
Australia (Royal Prince Alfred Hospital) - Brenner tumor and mucinous cystic neoplasm transforming into anaplastic carcinoma
Canada (Jewish General Hospital) - Malignant Brenner tumor
Canada (Pasqua Hospital) - Brenner tumor and mucinous cystadenoma with adenocarcinoma
Canada (University of Sherbrooke) - Mucinous cystadenocarcinoma, poorly differentiated with Brenner tumor, ovary
Ireland (Bon Secours Hospital) - Malignant Brenner tumor with adenosquamous differentiation
Ireland (Kerry General Hospital) - Endometriosis
Ireland (University College Hospital Residents) - Mixed benign Brenner tumor and poorly differentiated mucinous adenocarcinoma
Japan (Asahi General Hospital) - Clear cell adenocarcinoma (1); Malignant Brenner tumor (1)
Japan (Setagaya-Ku) - Malignant Brenner tumor
Japan (University of Yamanashi) - Malignant Brenner tumor
Japan (Wakayama Medical University) - Mucinous adenocarcinoma with Brenner tumor (2)
Oman (Khoula Hospital) - Malignant Brenner tumor with mucinous cystadenoma
Saudi Arabia (King Fahad Hospital Hofuf) - Mucinous adenocarcinoma with mural nodule of anaplastic carcinoma and associated benign Brenner tumor, left ovary
Saudi Arabia (King Khalid University Hospital) - Mucinous cystadenocarcinoma associated with Brenner tumor

Case 5 - Diagnosis:

High grade mucinous cysadenocarcinoma with incidental Brenner tumor (not all study sets), ovary
 T-87000, M-84713

Case 5 - 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.

Case No. 6, Accession No. 31361

September 2012

Fontana (Kaiser Permanente) - Adenocarcinoma vs. mesonephric carcinoma vx.benign
Glendale - Wolfian duct remnants
Hayward/Fremont - Vaginal adenosis
Lakewood - Adenomatoid tumor
Long Beach (Long Beach VA Hospital) - Infiltrating atypical glands, perineural invasion, low grade adenocarcinoma
Orinda (Kaiser Permanente) - Adenosis
Oxnard (St. John's Regional Medical Center) - Mesonephric duct remnants (2)
Santa Barbara (Miramonte Laboratory) - Adenocarcinoma, metastatic
Woodland Hills (Kaiser Permanente) - Mesonephric duct/vestigial Wolffian duct remnant
Arkansas (Associate Pathologists Laboratory) - Mesonephric remnant
Colorado (McKee Medical Center) - Mesonephric remnant
Colorado (University of Colorado) - Metastatic carcinoma vs. mesonephric adenocarcinoma vs. ectopic prostate
Delaware (Armed Forces Medical Examiner System) - Reactive soft tissue with no malignancy identified
Florida (GastroEnterology Associates of Ocala) - Fibroepithelial polyp
Florida (The Pathology Group of NW Florida) - Intramuscular lipoma
Georgia, Atlanta - Mesonephric remnants
Illinois (Heartland Regional Medical Center) - Soft tissue with mesonephric nests
Illinois (Loyola University of Chicago) - Mesonephric remnant hyperplasia
Illinois, Oak Brook - Endosalpingiosis
Maryland (University of Maryland) - Mesonephric rests
Massachusetts (Tufts Medical Center) - Mesonephric rests
Massachusetts (University of Massachusetts Medical Center) - Mesonephric hyperplasia
Minnesota (Fairview Ridges Hospital) - Mesonephric duct remnants
Missouri (Missouri Delta Medical Center) - Adenomatoid tumor (2)
Nebraska (Creighton University Medical Center) - Endometriosis
New York (Buffalo General Hospital) - Mesonephric remnants
New York (Erie County Medical Center) - Mesonephric remnants and ganglioneuroma
New York (SUNY Downstate Medical Center) - Mesonephric rests
Ohio, Union Town - Mesonephric remnants
Pennsylvania (Conemaugh Memorial Medical Center) - Adenocarcinoma of ovary, favor endometrioid carcinoma
Pennsylvania (Drexel University College of Medicine) - Mesonephric remnant
Pennsylvania (Lehigh Valley Hospital) - Endosalpingiosis
Puerto Rico (University of Puerto Rico) - Adenocarcinoma arising from endometriosis/adenosis
South Carolina (Medical University of South Carolina) - Mesonephric remnants
Tennessee (Molecular Pathology Laboratory Network) - Endometriosis
Texas (Crystal Beach) - Adenocarcinoma metastatic
Texas, Lubbock - Fallopian tube prolapse
Washington (Seattle VA Medical Center) - Developmental remnant (Wolffian) and invasive ganglion
West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma, NOS

Wisconsin (Medical Center of Wisconsin) - Mesonephric hyperplasia
Wisconsin (Medical Assessment of Consultation South Carolina) - Benign glandular cells consistent with glandular form of endometriosis
Wisconsin (St. Mary's Hospital) - Adenocarcinoma
Australia (Royal Hobart Hospital) - Endometrioid adenocarcinoma
Australia (The Royal Women's Hospital) - Mesonephric remnants
Australia (Royal Prince Alfred Hospital) - Hyperplastic neural and vascular tissue
Canada (Jewish General Hospital) - Mesonephric adenocarcinoma, well-differentiated
Canada (Pasqua Hospital) - Metanephric remnant
Canada (University of Sherbrooke) - Mesonephric remnants, apex of vagina
Ireland (Bon Secours Hospital) - Mesonephric rests
Ireland (Kerry General Hospital) - Yolk sac tumor
Ireland (University College Hospital Residents) - Mesonephric duct remnant
Japan (Asahi General Hospital) - Endometriosis (1); Vaginal adenosis (1)
Japan (Setagaya-Ku) - Mesonephric remnant
Japan (University of Yamanashi) - Endometriosis (1); Endometrioid adenocarcinoma (1)
Japan (Wakayama Medical University) - Mesonephric remnant (2)
Oman (Khoulia Hospital) - Mesonephric remnants hyperplasia/adenosis
Saudi Arabia (King Fahad Hospital Hofuf) - Endosalpingiosis, tissue apex vagina, post-hysterectomy
Saudi Arabia (King Khalid University Hospital) - Vaginal adenosis

Case 6 - Diagnosis:

Mesonephric duct remnants with hyperplasia, vaginal apex
 T-81000, M-91103

Directors note: This case is controversial; some feel that it is a low grade mesonephric adenocarcinoma (drc)

Case 6 - References:

Mesonephric remnant hyperplasia: an unusual benign mimicker of prostate cancer. *Ann Diagn Pathol* 2009; Dec;13(6): p402-4. Yacoub M; Milin S; Irani J; Fromont G.
 Mesonephric remnants or hyperplasia can cause abnormal pap smears: a study of three cases. *Int J Gynecol Pathol* 2003; Apr;22(2): p121-6. Welsh T; Fu YS; Chan J; Brundage HA; Rutgers JL.
 Mesonephric hyperplasia can cause abnormal cervical smears: report of three cases with review of literature. *Cytopathology* 2005 Oct;16(5): p240-3. Hejmadi RK; Gearty JC; Waddell C; Ganesan R.
 Urethral obstruction due to lobular mesonephric hyperplasia of the vagina--a case report. *Indian J Pathol Microbiol* 2005 Jan;48(1): p20-1. Handoo A; Kini H; Pai R; Prabhu GG.

Case No. 7, Accession No. 31419

September 2012

Fontana (Kaiser Permanente) - Yolk sac tumor
Glendale - Yolk sac tumor
Hayward/Fremont - Yolk sac tumor
Lakewood - Germ cell tumor consistent with yolk sac type
Long Beach (Long Beach VA Hospital) - Yolk sac tumor
Orinda (Kaiser Permanente) - Yolk sac tumor
Oxnard (St. John's Regional Medical Center) - Yolk sac tumor (2)
Santa Barbara (Miramonte Laboratory) - Teratoma with embryonal carcinoma
Woodland Hills (Kaiser Permanente) - Yolk sac tumor
Arkansas (Associate Pathologists Laboratory) - Choriocarcinoma
Colorado (McKee Medical Center) - Yolk sac tumor
Colorado (University of Colorado) - Yolk sac tumor
Delaware (Armed Forces Medical Examiner System) - Yolk sac tumor
Florida (GastroEnterology Associates of Ocala) - Yolk sac tumor
Florida (The Pathology Group of NW Florida) - Yolk sac tumor
Georgia, Atlanta - Yolk sac tumor

Illinois (Heartland Regional Medical Center) - Yolk sac tumor
Illinois (Loyola University of Chicago) - Yolk sac tumor
Illinois, Oak Brook - Yolk sac tumor
Maryland (University of Maryland) - Yolk sac
Massachusetts (Tufts Medical Center) - Yolk sac tumor
Massachusetts (University of Massachusetts Medical Center) - Yolk sac tumor
Minnesota (Fairview Ridges Hospital) - Yolk sac tumor
Missouri (Missouri Delta Medical Center) - Yolk sac tumor (2)
Nebraska (Creighton University Medical Center) - Yolk sac tumor
New York (Buffalo General Hospital) - Yolk sac tumor
New York (Erie County Medical Center) - Yolk sac tumor
New York (SUNY Downstate Medical Center) - Yolk sac tumor
Ohio, Union Town - Yolk sac tumor
Pennsylvania (Conemaugh Memorial Medical Center) - Yolk sac tumor of ovary
Pennsylvania (Drexel University College of Medicine) - Yolk sac tumor
Pennsylvania (Lehigh Valley Hospital) - Yolk sac tumor
Puerto Rico (University of Puerto Rico) - Yolk sac tumor
South Carolina (Medical University of South Carolina) - Yolk sac tumor
Tennessee (Molecular Pathology Laboratory Network) - Yolk sac tumor
Texas (Crystal Beach) - Yolk sac tumor
Texas, Lubbock - Yolk sac tumor
Washington (Seattle VA Medical Center) - Malignant germ cell neoplasm, yolk sac different
West Virginia (Greenbrier Valley Medical Center) - Yolk sac tumor
Wisconsin (Medical Center of Wisconsin) - Yolk sac tumor
Wisconsin (Medical Assessment of Consultation South Carolina) - Yolk sac tumor
Wisconsin (St. Mary's Hospital) - Malignant mixed germ cell tumor (embryonal carcinoma and yolk sac tumor and choriocarcinoma)
Australia (Royal Hobart Hospital) - Yolk sac tumor
Australia (The Royal Women's Hospital) - Yolk sac tumor, ovary
Australia (Royal Prince Alfred Hospital) - Yolk sac tumor
Canada (Jewish General Hospital) - Yolk sac tumor
Canada (Pasqua Hospital) - Yolk sac tumor
Canada (University of Sherbrooke) - Yolk sac tumor, ovary
Ireland (Bon Secours Hospital) - Yolk sac tumor
Ireland (Kerry General Hospital) - Yolk sac tumor
Ireland (University College Hospital Residents) - Yolk sac tumor
Japan (Asahi General Hospital) - Yolk sac tumor (2)
Japan (Setagaya-Ku) - Yolk sac tumor
Japan (University of Yamanashi) - Yolk sac tumor
Japan (Wakayama Medical University) - Yolk sac tumor (2)
Oman (Khoulia Hospital) - Yolk sac tumor
Saudi Arabia (King Fahad Hospital Hofuf) - Yolk sac tumor, left ovary
Saudi Arabia (King Khalid University Hospital) - Yolk sac tumor

Case 7 - Diagnosis:

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

Case 7 - 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.

Case No. 8, Accession No. 31317

September 2012

Fontana (Kaiser Permanente) - Teratoma with yolk sac tumor

Glendale - Yolk sac tumor

Hayward/Fremont - Mixed GCT, yolk sac (PVVT and embryonal

Lakewood - Mixed germ cell tumor

Long Beach (Long Beach VA Hospital) - Germ cell tumor, mixed yolk sac and embryonal

Orinda (Kaiser Permanente) - Yolk sac tumor, endometrial-like variant

Oxnard (St. John's Regional Medical Center) - Mixed germ cell tumor/yolk sac tumor embryonal and choriocarcinoma
(2)

Santa Barbara (Miramonte Laboratory) - Teratoma with yolk sac tumor

Woodland Hills (Kaiser Permanente) - Mixed germ cell tumor

Arkansas (Associate Pathologists Laboratory) - Germ cell tumor (yolk sac tumor, embryonal carcinoma)

Colorado (McKee Medical Center) - Mixed germ cell tumor

Colorado (University of Colorado) - Mixed germ cell tumor (yolk sac, choriocarcinoma, embryonal carcinoma)

Delaware (Armed Forces Medical Examiner System) - Malignant mixed germ cell tumor

Florida (GastroEnterology Associates of Ocala) - Dysgerminoma

Florida (The Pathology Group of NW Florida) - Embryonal carcinoma

Georgia, Atlanta - Teratocarcinoma

Illinois (Heartland Regional Medical Center) - Malignant germ cell neoplasm (yolk sac tumor and embryonal carcinoma)

Illinois (Loyola University of Chicago) - Mixed germ cell tumor, predominantly yolk sac tumor

Illinois, Oak Brook - Embryonal carcinoma

Maryland (University of Maryland) - Mixed germ cell tumor with embryonal carcinoma and yolk sac tumor (embryoma)

Massachusetts (Tufts Medical Center) - Mixed germ cell tumor

Massachusetts (University of Massachusetts Medical Center) - Mixed germ cell tumor (yolk sac tumor and embryonal carcinoma)

Minnesota (Fairview Ridges Hospital) - Malignant germ cell tumor (yolk sac tumor, embryonal carcinoma and syncytiotrophoblast cells)

Missouri (Missouri Delta Medical Center) - Infarcted yolk sac tumor (1); Mixed germ cell tumor (yolk sac and embryonal cancer)

Nebraska (Creighton University Medical Center) - Mixed germ cell tumor embryonal and yolk sac tumor

New York (Buffalo General Hospital) - Mixed germ cell tumor

New York (Erie County Medical Center) - Mixed germ cell tumor

New York (SUNY Downstate Medical Center) - Mixed germ cell tumor with yolk sac tumor and embryonal carcinoma

Ohio, Union Town - Embryonal carcinoma

Pennsylvania (Conemaugh Memorial Medical Center) - Mixed germ cell tumor of ovary, with yolk sac tumor and embryonal carcinoma components

Pennsylvania (Drexel University College of Medicine) - Yolk sac tumor

Pennsylvania (Lehigh Valley Hospital) - Embryonal carcinoma

Puerto Rico (University of Puerto Rico) - Mixed germ cell tumor

South Carolina (Medical University of South Carolina) - Mixed germ cell tumor (embryonal and yolk sac)

Tennessee (Molecular Pathology Laboratory Network) - Embryonal carcinoma

Texas (Crystal Beach) - Embryonal carcinoma

Texas, Lubbock - Yolk sac tumor

Washington (Seattle VA Medical Center) - Malignant germ cell neoplasm, yolk sac and focal choriocarcinoma

West Virginia (Greenbrier Valley Medical Center) - Embryonal carcinoma

Wisconsin (Medical Center of Wisconsin) - Mixed malignant germ cell tumor

Wisconsin (Medical Assessment of Consultation South Carolina) - Embryonal carcinoma

Wisconsin (St. Mary's Hospital) - Malignant mixed germ cell tumor (yolk sac/endodermal sinus tumor and embryonal cell carcinoma)

Australia (Royal Hobart Hospital) - Mixed germ cell tumors (teratoma with yolk sac tumor and probable embryonal carcinoma)
Australia (The Royal Women's Hospital) - Germ cell tumor, favoring embryonal carcinoma
Australia (Royal Prince Alfred Hospital) - Mixed germ cell tumor
Canada (Jewish General Hospital) - Mixed germ cell tumor (yolk sac and embryonic carcinoma)
Canada (Pasqua Hospital) - Embryonal carcinoma
Canada (University of Sherbrooke) - Embryonal carcinoma, ovary
Ireland (Bon Secours Hospital) - Mixed embryonal carcinoma and yolk sac tumor
Ireland (Kerry General Hospital) - Malignancy mixed Mullerian tumor
Ireland (University College Hospital Residents) - Mixed germ cell tumor
Japan (Asahi General Hospital) - Yolk sac tumor (2)
Japan (Setagaya-Ku) - Embryonal carcinoma
Japan (University of Yamanashi) - Yolk sac tumor
Japan (Wakayama Medical University) - Mixed germ cell tumor composed of embryonal carcinoma and yolk sac tumor (2)
Oman (Khoulia Hospital) - Mixed germ cell tumor
Saudi Arabia (King Fahad Hospital Hofuf) - Mixed germ cell tumor, predominantly embryonal carcinoma, minor component of yolk cell tumor, right ovary
Saudi Arabia (King Khalid University Hospital) - Malignant mixed germ cell tumor

Case 8 - Diagnosis:

Malignant mixed germ cell tumor (MMGCT) with embryonal, yolk sac and teratomatous components, right adnexa (ovary and oviduct)
T-87000, M-90713

Directors note: Component histology phenotypes differed among the study sets. (drc)

Case 8 - References:

Malignant mixed ovarian germ cell tumor with embryonal component. *J Pediatr Adolesc Gynecol* 2011; Feb;24(1): pe1-3. Moniaga NC; Randall LM.
Malignant ovarian germ cell tumors: a single-institution experience. *Am J Clin Oncol* 2009; Apr;32(2): p191-6. Cicin I; Eralp Y, et al.
Malignant germ cell tumors of the ovary: a review of 41 cases and risk factors for recurrence. *Eur J Gynaecol Oncol* 2008;;29(6): p635-7. Topuz S; Iyibozkurt AC, et al.
Prognostic impact of laterality in malignant ovarian germ cell tumors. *Int J Gynecol Cancer* 2011; Feb;21(2): p257-62. Mahdi H; Kumar S; Seward S, et al.
Malignant Mullerian mixed tumor of the ovary associated with yolk sac tumor, neuroepithelial and trophoblastic differentiation (teratoid carcinosarcoma). *Int J Gynecol Pathol* 2008; Oct;27(4): p515-20. Garcia-Galvis OF; Cabrera-Ozoria C, et al.
Clinical presentation and outcome of pediatric ovarian germ cell tumor: a study of 40 patients. *J Pediatr Hematol Oncol* 2010; Mar;32(2): pe54-6. Biswajit D; Patil CN; Sagar TG.

Case No. 9, Accession No. 31331

September 2012

Fontana (Kaiser Permanente) - Malignant mixed mullerian tumor
Glendale - Malignant mixed mullerian tumor
Hayward/Fremont - Carcinosarcoma
Lakewood - Malignant mixed mullerian tumor
Long Beach (Long Beach VA Hospital) - Malignant mixed mullerian tumor
Orinda (Kaiser Permanente) - Malignant mullerian mixed tumor
Oxnard (St. John's Regional Medical Center) - Malignant mullerian mixed tumor with features of rhabdomyosarcoma, heterologous type (1); Leiomyosarcoma vs. carcinosarcoma (1)
Santa Barbara (Miramonte Laboratory) - Carcinosarcoma
Woodland Hills (Kaiser Permanente) - Malignant mixed mullerian tumor
Arkansas (Associate Pathologists Laboratory) - Malignant mixed mullerian tumor

Colorado (McKee Medical Center) - Malignant mixed mullerian tumor
Colorado (University of Colorado) - Carcinosarcoma (MMMT)
Delaware (Armed Forces Medical Examiner System) - Leiomyosarcoma
Florida (GastroEnterology Associates of Ocala) - Leiomyosarcoma
Florida (The Pathology Group of NW Florida) - Carcinosarcoma (MMMT)
Georgia, Atlanta - Malignant mixed mullerian tumor
Illinois (Heartland Regional Medical Center) - Malignant mixed mullerian tumor (carcinosarcoma)
Illinois (Loyola University of Chicago) - Malignant mixed mullerian tumor
Illinois, Oak Brook - Carcinosarcoma
Maryland (University of Maryland) - Carcinosarcoma with focal heterologous components (rhabdomyosarcoma)
Massachusetts (Tufts Medical Center) - Malignant mixed mullerian tumor
Massachusetts (University of Massachusetts Medical Center) - Malignant mixed mullerian tumor
Minnesota (Fairview Ridges Hospital) - Malignant mesodermal mixed tumor with heterologous component (rhabdomyosarcoma)
Missouri (Missouri Delta Medical Center) - Carcinosarcoma (2)
Nebraska (Creighton University Medical Center) - MMT/carcinosarcoma
New York (Buffalo General Hospital) - Carcinosarcoma
New York (Erie County Medical Center) - Carcinosarcoma
New York (SUNY Downstate Medical Center) - Carcinosarcoma
Ohio, Union Town - Carcinosarcoma
Pennsylvania (Conemaugh Memorial Medical Center) - Carcinosarcoma of uterus
Pennsylvania (Drexel University College of Medicine) - Malignant mixed mullerian tumor
Pennsylvania (Lehigh Valley Hospital) - Mixed mesodermal mullerian tumor
Puerto Rico (University of Puerto Rico) - Mixed malignant mullerian tumor
South Carolina (Medical University of South Carolina) - Carcinosarcoma
Tennessee (Molecular Pathology Laboratory Network) - MMT
Texas (Crystal Beach) - Uterine carcinosarcoma (endometrioid adenocarcinoma and stromal sarcoma)
Texas, Lubbock - Malignant mixed mullerian tumor
Washington (Seattle VA Medical Center) - Carcinosarcoma
West Virginia (Greenbrier Valley Medical Center) - Carcinosarcoma
Wisconsin (Medical Center of Wisconsin) - Carcinosarcoma
Wisconsin (Medical Assessment of Consultation South Carolina) - Carcinosarcoma (malignant mixed mullerian neoplasm)
Wisconsin (St. Mary's Hospital) - Carcinosarcoma
Australia (Royal Hobart Hospital) - Carcinosarcoma (mullerian mixed tumor)
Australia (The Royal Women's Hospital) - Malignant mixed mullerian tumor, uterus
Australia (Royal Prince Alfred Hospital) - Carcinosarcoma
Canada (Jewish General Hospital) - Carcinosarcoma with rhabdosarcoma differ
Canada (Pasqua Hospital) - Malignant mixed mullerian tumor
Canada (University of Sherbrooke) - Carcinosarcoma with heterologous component (rhabdomyosarcoma), uterus
Ireland (Bon Secours Hospital) - Malignant mixed mullerian tumor
Ireland (Kerry General Hospital) - B-acute lymphoblastic leukemia
Ireland (University College Hospital Residents) - Carcinosarcoma
Japan (Asahi General Hospital) - Carcinosarcoma (2)
Japan (Setagaya-Ku) - Carcinosarcoma
Japan (University of Yamanashi) - Carcinosarcoma
Japan (Wakayama Medical University) - Carcinosarcoma (2)
Oman (Khoula Hospital) - Carcinosarcoma (malignant mixed mullerian tumor)
Saudi Arabia (King Fahad Hospital Hofuf) - Malignant mixed mullerian tumor of uterus, heterologous type
Saudi Arabia (King Khalid University Hospital) - Malignant mixed mullerian tumor of uterus

Case 9 - Diagnosis:

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

Case 9 - References:

Determining predominating histologic component in malignant mixed mullerian tumors: is it worth it? *Int J Gynecol Cancer* 2008; Jul-Aug;18(4): p809-12. Ozguroglu M; Bilici A.
Malignant mixed mullerian tumor of primary peritoneal origin. *Ann Diagn Pathol* 2011; Aug;15(4): p273-7. Kanis M; Kesterson JP; Shroff S; Lele S; Mhawech-Fauceglia P.
WT1 immunoprofiling and comparison of malignant Mullerian mixed tumors of the female genital tract. *Int J Gynecol Pathol* 2010; Sep;29(5): p452-8. Franko A; Magliocco AM; Duan Q; Duggan MA.
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, et al.
Malignant mixed Mullerian tumor of the uterine cervix with neuroendocrine differentiation. *Int J Gynecol Cancer* 2002; Mar-Apr;12(2): p223-7. Ribeiro-Silva A; Novello-Vilar A, et al.
Cervicovaginal (Papanicolaou) smear findings in patients with malignant mixed Mullerian tumors. *Diagn Cytopathol* 2003; May;28(5): p245-9. Casey MB; Caudill JL; Salomao DR.

Case No. 10, Accession No. 30562

September 2012

Fontana (Kaiser Permanente) - Lymphoblastic lymphoma
Glendale - All/lymphoblastic lymphoma
Hayward/Fremont - Lymphoblastic lymphoma, precursor B-cell type
Lakewood - B-cell lymphoma
Long Beach (Long Beach VA Hospital) - B-cell lymphoma
Orinda (Kaiser Permanente) - Acute lymphoblastic lymphoma
Oxnard (St. John's Regional Medical Center) - Acute lymphoblastic leukemia (2)
Santa Barbara (Miramonte Laboratory) - Burkitts lymphoma
Woodland Hills (Kaiser Permanente) - Lymphoblastic lymphoma
Arkansas (Associate Pathologists Laboratory) - Acute lymphoblastic leukemia involving ovary
Colorado (McKee Medical Center) - B-cell acute lymphoblastic lymphoma
Colorado (University of Colorado) - Precursor B-lymphoblastic lymphoma (B-LBL)
Delaware (Armed Forces Medical Examiner System) - Pre B-lymphoblastic leukemia/lymphoma
Florida (GastroEnterology Associates of Ocala) - Acute lymphoblastic leukemia/lymphoma
Florida (The Pathology Group of NW Florida) - Lymphoblastic lymphoma, T-cell type
Georgia, Atlanta - Acute lymphoblastic leukemia
Illinois (Heartland Regional Medical Center) - Lymphoblastic lymphoma
Illinois (Loyola University of Chicago) - Lymphoblastic lymphoma
Illinois, Oak Brook - Burkitts lymphoma
Maryland (University of Maryland) - B-lymphoblastic lymphoma
Massachusetts (Tufts Medical Center) - B-cell lymphoblastic lymphoma
Massachusetts (University of Massachusetts Medical Center) - B-lymphoblastic lymphoma
Minnesota (Fairview Ridges Hospital) - B-lymphoblastic leukemia/lymphoma
Missouri (Missouri Delta Medical Center) - Small cell lymphocytic lymphoma, Burkitts type (1); Lymphoma, Burkitts type (1)
Nebraska (Creighton University Medical Center) - B-cell lymphoblastic lymphoma
New York (Buffalo General Hospital) - Pre-B-lymphoblastic lymphoma
New York (Erie County Medical Center) - B-lymphoblastic leukemia/lymphoma, NOS
New York (SUNY Downstate Medical Center) - Lymphoblastic lymphoma
Ohio, Union Town - Precursor B lymphoblastic lymphoma
Pennsylvania (Conemaugh Memorial Medical Center) - Lymphoblastic lymphoma
Pennsylvania (Drexel University College of Medicine) - Precursor B-lymphoma
Pennsylvania (Lehigh Valley Hospital) - Lymphoblastic leukemia
Puerto Rico (University of Puerto Rico) - B-acute lymphoblastic leukemia/lymphoma, NOS
South Carolina (Medical University of South Carolina) - B-acute lymphoblastic leukemia
Tennessee (Molecular Pathology Laboratory Network) - B-cell lymphoblastic leukemia
Texas (Crystal Beach) - B-cell lymphoblastic lymphoma/leukemia
Texas, Lubbock - Burkitt lymphoma

Washington (Seattle VA Medical Center) - Acute lymphocytic leukemia
West Virginia (Greenbrier Valley Medical Center) - Burkitts lymphoma
Wisconsin (Medical Center of Wisconsin) - Lymphoblastic lymphoma
Wisconsin (Medical Assessment of Consultation South Carolina) - Malignant lymphoma, non-Hodgkin B-cell Burkitt-type
Wisconsin (St. Mary's Hospital) - Acute lymphocytic leukemia
Australia (Royal Hobart Hospital) - B-lymphoblastic lymphoma
Australia (The Royal Women's Hospital) - Lymphoblastic lymphoma/leukemia
Australia (Royal Prince Alfred Hospital) - Lymphoblastic lymphoma
Canada (Jewish General Hospital) - Lymphoblastic lymphoma
Canada (Pasqua Hospital) - Lymphoblastic lymphoma
Canada (University of Sherbrooke) - Lymphoblastic lymphoma, ovary
Ireland (Bon Secours Hospital) - B-lymphoblastic lymphoma
Ireland (Kerry General Hospital) - B-acute lymphoblastic leukemia
Ireland (University College Hospital Residents) - Lymphoblastic lymphoma
Japan (Asahi General Hospital) - Malignant lymphoma (1); B-lymphoblastic leukemia/lymphoma, NOS (1)
Japan (Setagaya-Ku) - Malignant lymphoma
Japan (University of Yamanashi) - B-lymphoblastic leukemia/lymphoma
Japan (Wakayama Medical University) - Lymphoblastic lymphoma, B-cell type (2)
Oman (Khoula Hospital) - Lymphoblastic lymphoma/leukemia
Saudi Arabia (King Fahad Hospital Hofuf) - Precursor B-cell lymphoma/leukemia, left ovarian mass
Saudi Arabia (King Khalid University Hospital) - Lymphoblastic lymphoma/leukemia

Case 10 - Diagnosis:

Precursor B-cell lymphoma/leukemia, ovary
 T-87000, M-96123

Case 10 - References:

Primary precursor B-cell lymphoblastic lymphoma of the ovary: case report and review of the literature. *Int J Gynecol Pathol* 2008; Jul;27(3): p412-7. Sakurai N; Tateoka K; Taguchi J; Terada T.
 Precursor B-cell lymphoblastic lymphoma of the ovaries: an immunohistochemical study and review of the literature. *Int J Gynecol Pathol* 2004; Apr;23(2): p193-7. Iyengar P; Ismiil N; Deodhare S.
 Burkitt lymphoma/leukaemia transformed from a precursor B cell: clinical and molecular aspects. *Eur J Haematol* 2008; Mar;80(3): p265-70. Hassan R; Felisbino F, et al.
 Composite diffuse large B-cell lymphoma and precursor B lymphoblastic lymphoma presenting as a double-hit lymphoma with MYC and BCL2 translocation. *J Clin Pathol* 2011; Nov;64(11): p1032-4. Nanua S; Bartlett NL, et al.
 Primary appendiceal precursor B lymphoblastic lymphoma with peculiar morphology mimicking diffuse large B cell lymphoma. *Pathol Int* 2010; Oct;60(10): p690-3. Wang RC; Jan YJ; Wen MC; Wang J; Hsieh PP.