



CALIFORNIA
TUMOR TISSUE REGISTRY

GYNECOLOGIC PATHOLOGY & BREAST

Minutes – Subscription B

November 2010



SUGGESTED READING (General Topics from Recent Literature):

- To Count and How to Count, That Is the Questions: Interobserver and Intraobserver Variability Among Pathologists in Lymph Node Counting. Parkash V, Bifulco C, et al. *Am J Clin Pathol* 2010; 134:42-49.
- Outcomes in Localized Prostate Cancer. National Prostate Cancer Register of Sweden Follow-Up Study. Stattin P, Holmberg, et al. *J Natl Cancer Inst* 2010; 102:950-958.
- Clinicopathological Features of a Distinctive penile Neoplasm. Report of 45 Cases. Chaux A, Tamboli P, et al. *Mod Pathol* 2010; 23:896-904.
- Longitudinal Outcome Study of Sessile Serrated Adenomas of the Colorectum. An Increased Risk for Subsequent Right-Sided Colorectal Carcinoma. *Am J Surg Pathol* 2010; 34:927-934.
- Prognostic Factors in Cutaneous Desmoplastic Melanoma. A Study of 252 Patients. Murali R, Shaw HM, et al. *Cancer* 2010; 8.

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FILE DIAGNOSES

CTTR Subscription B

November 2010

Case 1:

Auto-immune (rheumatoid) vasculitis, cervix
T-83000, M-40000

Case 2:

Papillary serous and endometrial carcinoma (minor part), endometrium
T-82000, M-80103

Case 3:

Low grade stromal sarcoma, uterus
T-82000, M-88003

Case 4:

Fibroma (“fibrothecoma”), ovaries
T-87000, M-88100

Case 5:

Mucinous tumor, borderline (borderline mucinous cystadenoma), ovary
T-87000, M-80000

Case 6:

Adult granulosa cell tumor, adnexa
T-86922, M-86201

Case 7:

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

Case 8:

Phyllodes tumor (juvenile), breast
T-04000, M-90213

Case 9:

Osteosarcoma, breast
T-04000, M-91803

Case 10:

Metastatic metaplastic carcinoma with osteosarcomatous overgrowth, possibly radiation-related,
chest wall
T-04000, M-80103

Carlsbad (Genoptix Medical Laboratory) - Adenocarcinoma in-situ
Glendale - Chronic inflammation
Loma Linda - Cervix fibrosis, procidentia
Sacramento (U.C. Davis Medical Center) - Leukocytoclastic vasculitis
San Diego (Naval Medical Center) - Necrotizing arteries etiology unknown
Florida (Naples Pathology Associates) - Rheumatoid vasculitis
Georgia, Atlanta - Granulomatous vasculitis
Illinois (St. Mary's Hospital) - Vasculitis vs. non-Hodgkin lymphoma
Illinois (Heartland Regional Medical Center) - Vasculitis
Kansas (Coffeyville Regional Medical Center) - Chronic vasculitis and atypical endocervical epithelium
Kansas (Peterson Laboratory Services) - Lymphocytic vasculitis
Maryland (University of Maryland Medical Center Residents) - Necrotizing arteritis, see note (history of rheumatoid arthritis and Lupus)
Massachusetts (BWH Pathology) - Leiomyoma
New York (Albany Medical Center) - Uterine cervix arteritis
New York (Buffalo General Hospital) - Systemic vasculitis
New York (SUNY Stony Brook University Hospital) - Vasculitis with fibrinoid necrosis
New York (Westchester Medical Center) - Vasculitis
North Carolina (Wake Forest University School of Medicine) - Vasculitis
Ohio (University of Toledo Medical Center) - Lupus vasculopathy
Pennsylvania (Conemaugh Memorial Hospital) - Autoimmune vasculitis
Pennsylvania (Drexel University College of Medicine) - Adenomyoma
Puerto Rico (University of Puerto Rico) - Rule out minimal deviation adenocarcinoma of cervix/vasculitis
Tennessee, Knoxville - Uterine prolapse with vasculitis
Texas (Crystal Beach) - Vasculitis consistent with lymphocytosis
Texas, Lubbock - Microscopic polyangitis
Wisconsin, Madison - Polyarteritis nodosa
Australia (St. Vincent's Hospital) - Cervix, granulomatous vasculitis
Canada (Pasqua Hospital) - Mesonephric remnant
England (John Radcliffe Hospital) - Vasculitis
Ireland (University Hospital Galway) - Vasculitis, cervix
Japan (Asahi General Hospital) - Polyarteritis nodosa
Japan (Shizuoka Tokushu-kai Hospital) - Adenocarcinoma in-situ
Japan, Tokyo - Periarthritis nodosa
Singapore (Freelance/Locum Practice) - Vasculitis/arthritis
Spain (Povisa Medical Center) - Necrotizing vasculitis

Case 1 - Diagnosis:

Auto-immune (rheumatoid) vasculitis, cervix
T-83000, M-40000

Case 1 - References:

Decline in rheumatoid vasculitis prevalence among US veterans: a retrospective cross-sectional study. *Arthritis Rheum* 2009; Sep;60(9): p2553-7. Bartels C; Bell C; Rosenthal A; et al.

Systemic rheumatoid vasculitis: a review. *Semin Arthritis Rheum* 2006; Oct;36(2): p88-98. Genta MS; Genta RM; Gabay C.

Association of HLA-C3 and smoking with vasculitis in patients with rheumatoid arthritis. *Rheum* 2006; Sep;54(9): p2776-83. Turesson C; Schaid DJ; et al.

Incidence of vasculitis in rheumatoid arthritis: comment on the article by Turesson et al. *Arthritis Rheum* 2005; May;52(5): p1620; author reply 1621 Puechal X.

Vasculitis associated with connective tissue disorders. *Curr Rheumatol Rep* 2006; Aug;8(4): p312-6. Doyle MK.

Case No. 2, Accession No. 31225

November 2010

Carlsbad (Genoptix Medical Laboratory) - Endometrioid adenocarcinoma
Glendale - Adenocarcinoma
Loma Linda - Uterus endometrial adenocarcinoma
Sacramento (U.C. Davis Medical Center) - Papillary serous carcinoma
San Diego (Naval Medical Center) - Serous adenocarcinoma
Florida (Naples Pathology Associates) - Papillary serous endometrial adenocarcinoma
Georgia, Atlanta - Serous carcinoma
Illinois (St. Mary's Hospital) - Serous adenocarcinoma
Illinois (Heartland Regional Medical Center) - Serous papillary carcinoma (high grade)
Kansas (Coffeyville Regional Medical Center) - Endometrioid adenocarcinoma
Kansas (Peterson Laboratory Services) - Serous carcinoma
Maryland (University of Maryland Medical Center Residents) - Mixed endometrial carcinoma, serous and endometrioid types
Massachusetts (BWH Pathology) - Endometrial adenocarcinoma (endometrioid, grade 3)
New York (Albany Medical Center) - Mixed endometrioid, serous carcinoma
New York (Buffalo General Hospital) - Endometrial adenocarcinoma, endometrioid type
New York (SUNY Stony Brook University Hospital) - Papillary serous carcinoma
New York (Westchester Medical Center) - Papillary serous adenocarcinoma
North Carolina (Wake Forest University School of Medicine) - Papillary serous carcinoma
Ohio (University of Toledo Medical Center) - Mixed adenocarcinoma with papillary and endometrioid types
Pennsylvania (Conemaugh Memorial Hospital) - Mixed serous and endometrioid adenocarcinoma
Pennsylvania (Drexel University College of Medicine) - Endometrial carcinoma, endometrioid type FIGO III
Puerto Rico (University of Puerto Rico) - Adenocarcinoma of endometrium, serous type
Tennessee, Knoxville - Papillary serous carcinoma
Texas (Crystal Beach) - Adenocarcinoma endometrioid
Texas, Lubbock - Papillary serous carcinoma
Wisconsin, Madison - Uterine papillary serous carcinoma
Australia (St. Vincent's Hospital) - Uterus high grade carcinoma favor endometrioid
Canada (Pasqua Hospital) - Mixed serous and endometrioid carcinoma
England (John Radcliffe Hospital) - Serous carcinoma
Ireland (University Hospital Galway) - Mixed endometrioid and papillary serous carcinoma
Japan (Asahi General Hospital) - Serous carcinoma
Japan (Shizuoka Tokushu-kai Hospital) - Serous carcinoma
Japan, Tokyo - Endometrioid adenocarcinoma
Singapore (Freelance/Locum Practice) - Endometrial adenocarcinoma, predominantly endometrioid with serous component
Spain (Povisa Medical Center) - Endometrioid adenocarcinoma

Case 2 - Diagnosis:

Papillary serous and endometrial carcinoma (minor part), endometrium
T-82000, M-80103

Case 2 - References:

Utility of p16 expression for distinction of uterine serous carcinomas from endometrial endometrioid and endocervical adenocarcinomas: immunohistochemical analysis of 201 cases. *Am J Surg Pathol* 2009; Oct;33(10): p1504-14: Yemelyanova A; Ji H; Shih Ie M; Wang TL; Wu LS; Ronnett BM.

The pattern of CD98 expression is different between uterine serous papillary carcinoma and endometrioid endometrial carcinoma. *Gynecol Oncol* 2007; Jan;104(1): p264-5: Monaghan H; Williams AR .

Papillary serous carcinoma--a less radio-sensitive subtype of endometrial cancer. *Gynecol Oncol* 2005; Aug;98(2): p299-303: JD; Gilks B; Lim P.

Recent developments and selected diagnostic problems in carcinomas of the endometrium. *Am J Clin Pathol*; 2005; Dec;124 Suppl:S42-51: Ioffe OB.

Serous papillary carcinoma of the endometrium arising from endometrial polyps: a clinical, histological, and immunohistochemical study of 13 cases. *Hum Pathol* 2005; Dec;36(12): p1316-21: Trahan S; Tetu B; Raymond PE.

Case No. 3, Accession No. 31234

November 2010

Carlsbad (Genoptix Medical Laboratory) - Small cell undifferentiated carcinoma
Glendale - Epithelioid smooth muscle tumor of uncertain malignant potential
Loma Linda - Uterus anaplastic endometrial carcinoma
Sacramento (U.C. Davis Medical Center) - Ewing/PNET
San Diego (Naval Medical Center) - Low grade stromal sarcoma
Florida (Naples Pathology Associates) - Endometrial stromal sarcoma
Georgia, Atlanta - Low grade endometrial stromal sarcoma
Illinois (St. Mary's Hospital) - Endometrial stromal sarcoma
Illinois (Heartland Regional Medical Center) - Endometrial stromal sarcoma, low grade
Kansas (Coffeyville Regional Medical Center) - Endometrial stromal tumor
Kansas (Peterson Laboratory Services) - Low grade endometrial stromal sarcoma
Maryland (University of Maryland Medical Center Residents) - Low grade stromal sarcoma
Massachusetts (BWH Pathology) - Low grade endometrial stroma sarcoma
New York (Albany Medical Center) - Poorly differentiated carcinoma
New York (Buffalo General Hospital) - Granular cell tumor
New York (SUNY Stony Brook University Hospital) - Low grade endometrial stromal sarcoma
New York (Westchester Medical Center) - Low grade endometrial stromal sarcoma
North Carolina (Wake Forest University School of Medicine) - Low grade mesenchymal neoplasm, favor endometrial stromal sarcoma
Ohio (University of Toledo Medical Center) - Well-differentiated neuroendocrine neoplasm
Pennsylvania (Conemaugh Memorial Hospital) - Oxyphilic cell variant of endometrioid adenocarcinoma
Pennsylvania (Drexel University College of Medicine) - Epithelioid leiomyoma
Puerto Rico (University of Puerto Rico) - Epithelioid low grade stromal sarcoma/rule out epithelioid leiomyoma and carcinoid tumor
Tennessee, Knoxville - Low grade endometrial stromal sarcoma
Texas (Crystal Beach) - Endometrial stromal sarcoma
Texas, Lubbock - Stromal sarcoma
Wisconsin, Madison - Endometrial stromal sarcoma
Australia (St. Vincent's Hospital) - Perivascular epithelioid cell tumor
Canada (Pasqua Hospital) - Endometrial stromal tumor
England (John Radcliffe Hospital) - Pecoma
Ireland (University Hospital Galway) - Endometrial stromal tumor vs. cellular leiomyoma
Japan (Asahi General Hospital) - Low grade stromal sarcoma
Japan (Shizuoka Tokushu-kai Hospital) - Sex cord-like tumor
Japan, Tokyo - Endometrial stromal sarcoma
Singapore (Freelance/Locum Practice) - Endometrial stromal tumor
Spain (Povisa Medical Center) - Endometrial stromal sarcoma, low grade

Case 3 - Diagnosis:

Low grade stromal sarcoma, uterus
T-82000, M-88003

Case 3 - References:

Low-grade endometrial stromal sarcoma of the uterus: review of 10 cases. *Anticancer Res* 2008; Sep-Oct;28(5B): p2869-74. Landreat V; Paillocher N; Catala L; Foucher F; Descamps P; Leveque J.

Cytomorphologic features of low-grade endometrial stromal sarcoma. *Am J Clin Pathol* 2007; Aug;128(2): p265-71: Policarpio-Nicolas ML; Cathro HP; Kerr SE; Stelow EB.

Low-grade endometrial stromal sarcoma: a single center's experience with 22 cases. *Int J Gynecol Cancer* 2008; Sep-Oct;18(5): p1084-9: Kim WY; Lee JW; Choi CH; Kang H; Kim TJ; Kim BG; Lee JH; Bae DS.

Lymph node metastases in low-grade endometrial stromal sarcoma. *Gynecol Oncol* 2005; Feb;96(2): p402-6 Riopel J; Plante M; Renaud MC; Roy M; Tetu B.

Fine needle aspiration cytology of low grade endometrial stromal sarcoma: a case report. *Acta Cytol* 2007; May-Jun;51(3): p461-3 Gupta N; Awasthi A; Rajwanshi A; Sarla M.

Case No. 4, Accession No. 31260

November 2010

Carlsbad (Genoptix Medical Laboratory) - Fibrothecoma
Glendale - Fibrothecoma
Loma Linda - Ovary, fibroma
Sacramento (U.C. Davis Medical Center) - Fibrothecoma
San Diego (Naval Medical Center) - Fibroma
Florida (Naples Pathology Associates) - Ovarian fibroma
Georgia, Atlanta - Fibrothecoma
Illinois (St. Mary's Hospital) - Fibroma
Illinois (Heartland Regional Medical Center) - Fibroma
Kansas (Coffeyville Regional Medical Center) - Ovarian fibroma
Kansas (Peterson Laboratory Services) - Fibroma
Maryland (University of Maryland Medical Center Residents) - Fibrothecoma
Massachusetts (BWH Pathology) - Fibrothecoma
New York (Albany Medical Center) - Ovarian fibroma/fibrothecoma
New York (Buffalo General Hospital) - Fibroma
New York (SUNY Stony Brook University Hospital) - Fibroma
New York (Westchester Medical Center) - Fibroma
North Carolina (Wake Forest University School of Medicine) - Fibroma-thecoma
Ohio (University of Toledo Medical Center) - Fibrothecoma
Pennsylvania (Conemaugh Memorial Hospital) - Thecofibroma
Pennsylvania (Drexel University College of Medicine) - Fibroma
Puerto Rico (University of Puerto Rico) - Fibrothecoma
Tennessee, Knoxville - Fibroma
Texas (Crystal Beach) - Ovarian fibroma
Texas, Lubbock - Thecoma
Wisconsin, Madison - Ovarian fibroma
Australia (St. Vincent's Hospital) - Ovary, fibrothecoma
Canada (Pasqua Hospital) - Thecoma
England (John Radcliffe Hospital) - Fibrothecoma
Ireland (University Hospital Galway) - Fibroma, ovary
Japan (Asashi General Hospital) - Fibrothecoma
Japan (Shizuoka Tokushu-kai Hospital) - Fibroma
Japan, Tokyo - Fibroma
Singapore (Freelance/Locum Practice) - Fibroma
Spain (Povisa Medical Center) - Fibroma

Case 4 - Diagnosis:

Fibroma (“fibrothecoma”), ovaries
T-87000, M-88100

Case 4 - References:

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; et al.

Meigs' syndrome and virilizing ovarian fibrothecoma complicating pregnancy. A case report and review of the literature. *Neuro Endocrinol Lett* 2009;30(2): p192-4. Nowak M; Podciechowski L; et al.

Ovarian fibromas with heavy deposition of hyaline globules: a diagnostic pitfall. *Int J Gynecol Pathol* 2009; Jul;28(4): p356-61. Michal M; Kacerovska D; et al.

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.

Fibrosarcoma of the ovary arising in a fibrothecomatous tumor with minor sex cord elements. A Case report and review of the literature. *Arch Pathol Lab Med* 2003; Jan;127(1) p81-4; Lee HY; Ahmed Q.

Ovarian fibrothecoma with massive edema. *J Med Invest* 2000; Aug;47(3-4): p148-51. Sakaki M; Hirokawa M; et al..

Case No. 5, Accession No. 31144

November 2010

Carlsbad (Genoptix Medical Laboratory) - Mucinous borderline tumor
Glendale - Mucinous tumor of low malignant potential
Loma Linda - Mucinous cystadenoma
Sacramento (U.C. Davis Medical Center) - Borderline mucinous cystadenoma
San Diego (Naval Medical Center) - Mucinous borderline tumor
Florida (Naples Pathology Associates) - Mucinous cystadenoma
Georgia, Atlanta - Mucinous borderline tumor of intestinal type, rule out metastasis
Illinois (St. Mary's Hospital) - Mucinous borderline tumor
Illinois (Heartland Regional Medical Center) - Mucinous cystadenoma of borderline malignancy
Kansas (Coffeyville Regional Medical Center) - Borderline mucinous cystadenoma
Kansas (Peterson Laboratory Services) - Mucinous borderline tumor
Maryland (University of Maryland Medical Center Residents) - Borderline mucinous tumor, intestinal type
Massachusetts (BWH Pathology) - Borderline mucinous tumor of ovary
New York (Albany Medical Center) - Borderline mucinous tumor
New York (Buffalo General Hospital) - Mucinous borderline tumor, intestinal type
New York (SUNY Stony Brook University Hospital) - Mucinous borderline neoplasm
New York (Westchester Medical Center) - Borderline mucinous ovarian tumor
North Carolina (Wake Forest University School of Medicine) - Mucinous borderline tumor, intestinal type
Ohio (University of Toledo Medical Center) - Mucinous cystadenoma
Pennsylvania (Conemaugh Memorial Hospital) - Borderline mucinous tumor
Pennsylvania (Drexel University College of Medicine) - Borderline mucinous neoplasm
Puerto Rico (University of Puerto Rico) - Borderline mucinous cystadenoma, intestinal type
Tennessee, Knoxville - Mucinous borderline tumor
Texas (Crystal Beach) - Mucinous cystadenoma
Texas, Lubbock - Atypical proliferative mucinous carcinoma
Wisconsin, Madison - Mucinous tumor of low malignant potential
Australia (St. Vincent's Hospital) - Borderline mucinous cystadenoma, ovary
Canada (Pasqua Hospital) - Mucinous borderline tumor with intraepithelial carcinoma
England (John Radcliffe Hospital) - Borderline mucinous cystadenoma
Ireland (University Hospital Galway) - Mucinous borderline ovarian tumor
Japan (Asashi General Hospital) - Mucinous borderline tumor, intestinal type

Japan (Shizuoka Tokushu-kai Hospital) - Mucinous cystic tumor of borderline malignancy
Japan, Tokyo - Mucinous cystadenoma
Singapore (Freelance/Locum Practice) - Borderline mucinous tumor
Spain (Povisa Medical Center) - Mucinous borderline tumor

Case 5 - Diagnosis:

Mucinous tumor, borderline (borderline mucinous cystadenoma), ovary
T-87000, M-80000

Case 5 - References:

Endocervical-like mucinous borderline tumors of the ovary: a clinicopathologic analysis of 31 cases. *Am J Surg Pathol* 2004; Oct;28(10): p1311-8. Rodriguez IM; Irving JA; Prat J

Mucinous borderline ovarian tumors: points of general agreement and persistent controversies regarding nomenclature, diagnostic criteria, and behavior. *Hum Pathol* 2004; Aug;35(8): p949-60. Ronnett BM; Kajdacsy-Balla A; et al.

Mucinous tumors of the ovary: a clinicopathologic analysis of 75 borderline tumors (of intestinal type) and carcinomas. *Am J Surg Pathol* 2002; Feb;26(2): p139-52 Rodriguez IM; Prat J.

Pseudomyxoma peritonei and mucinous pyometral fluid arising from an ovarian borderline mucinous tumor: case report. *Eur J Gynaecol Oncol* 2007;28(2): p145-6. Niwa K; Hirose R; et al.

Risk factors for benign, borderline and invasive mucinous ovarian tumors: epidemiological evidence of a neoplastic continuum? *Gynecol Oncol* 2007; Nov;107(2): p223-30. Jordan SJ; Green AC; et al.

Serous and mucinous borderline (low malignant potential) tumors of the ovary. *Am J Clin Pathol* 2005; Jun;123 Suppl:S13-57. Acs G.

Primary retroperitoneal mucinous borderline tumor: a case report. *Gynecol Oncol* 2007; Sep;106(3): p626-7. Cottrill HM; Roberts WS

Case No. 6, Accession No. 31272

November 2010

Carlsbad (Genoptix Medical Laboratory) - Brenner tumor
Glendale - Adult granulosa cell tumor
Loma Linda - Granulosa cell tumor, ovary
Sacramento (U.C. Davis Medical Center) - Granulosa cell tumor
San Diego (Naval Medical Center) - Adult granulosa cell tumor
Florida (Naples Pathology Associates) - Transitional cell carcinoma
Georgia, Atlanta - Adult granulosa cell tumor
Illinois (St. Mary's Hospital) - Granulosa cell tumor
Illinois (Heartland Regional Medical Center) - Granulosa cell tumor, adult type
Kansas (Coffeyville Regional Medical Center) - Adult granulosa cell tumor
Kansas (Peterson Laboratory Services) - Granulosa cell tumor
Maryland (University of Maryland Medical Center Residents) - Adult granulosa cell tumor
Massachusetts (BWH Pathology) - Adult granulosa cell tumor
New York (Albany Medical Center) - Adult granulosa cell tumor
New York (Buffalo General Hospital) - Adult granulosa cell tumor, diffuse type
New York (SUNY Stony Brook University Hospital) - Granulosa cell tumor, adult type
New York (Westchester Medical Center) - Granulosa cell tumor
North Carolina (Wake Forest University School of Medicine) - Granulosa cell tumor, adult type
Ohio (University of Toledo Medical Center) - Granulosa cell tumor
Pennsylvania (Conemaugh Memorial Hospital) - Adult granulosa cell tumor
Pennsylvania (Drexel University College of Medicine) - Granulosa cell tumor
Puerto Rico (University of Puerto Rico) - Adult granulosa cell tumor

Tennessee, Knoxville - Granulosa cell tumor
Texas (Crystal Beach) - Adult granulosa cell tumor
Texas, Lubbock - Granulosa cell tumor
Wisconsin, Madison - Granulosa cell tumor
Australia (St. Vincent's Hospital) - Granulosa cell tumor, ovary
Canada (Pasqua Hospital) - Granulosa cell tumor
England (John Radcliffe Hospital) - Adult granulosa cell tumor
Ireland (University Hospital Galway) - Adult granulosa cell tumor
Japan (Asashi General Hospital) - Granulosa cell tumor
Japan (Shizuoka Tokushu-kai Hospital) - Adult granulosa cell tumor
Japan, Tokyo - Sclerosing stromal tumor
Singapore (Freelance/Locum Practice) - Adult type granulosa cell tumor
Spain (Povisa Medical Center) - Adult granulosa cell tumor

Case 6- Diagnosis:

Adult granulosa cell tumor, adnexa
 T-86922, M-86201

Case 6 - References:

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; et al.

 Clinical and pathological predictive factors in women with adult-type granulosa cell tumor of the ovary. *Int J Gynecol Pathol* 2007;Apr;26(2): p154-9. Villella J; Herrmann FR; et al.

 Adult-type testicular granulosa cell tumor: case report and review of the literature. *Urology* 2006; Nov;68(5): p1121.e13-6 . Arzola J; Hutton RL; et al.

 Granulosa cell tumors of the ovary with a pseudopapillary pattern: a study of 14 cases of an unusual morphologic variant emphasizing their distinction from transitional cell neoplasms and other papillary ovarian tumors. *Am J Surg Pathol* 2008; Apr;32(4): p581-6Irving JA; Young RH

 Prognostic factors in ovarian adult granulosa cell tumour. *J Clin Pathol* 2008; Aug;61(8): p881-4 Miller K; McCluggage WG.

 Molecular cytogenetics of ovarian granulosa cell tumors by comparative genomic hybridization. *Gynecol Oncol* 2005; Apr;97(1): p68-73 Lin YS; Eng HL; et al.

Case No. 7, Accession No. 31137

November 2010

Carlsbad (Genoptix Medical Laboratory) - Small cell carcinoma of hypercalcemic type
Glendale - Small cell carcinoma with hypercalcemia
Loma Linda - Granulosa cell tumor, ovary, highly malignant
Sacramento (U.C. Davis Medical Center) - Small cell carcinoma, hypercalcemic type
San Diego (Naval Medical Center) - Dysgerminoma
Florida (Naples Pathology Associates) - Small cell carcinoma of hypercalcemic type
Georgia, Atlanta - Small cell carcinoma of hypercalcemic type
Illinois (St. Mary's Hospital) - Small cell carcinoma of hypercalcemic type
Illinois (Heartland Regional Medical Center) - Small cell undifferentiated carcinoma
Kansas (Coffeyville Regional Medical Center) - Yolk sac tumor, hepatoid variant
Kansas (Peterson Laboratory Services) - Small cell carcinoma, hypercalcemic type
Maryland (University of Maryland Medical Center Residents) - Small cell carcinoma of ovary, hypercalcemic type
Massachusetts (BWH Pathology) - Hypercalcemic small cell carcinoma
New York (Albany Medical Center) - Small cell carcinoma, hypercalcemic type

New York (Buffalo General Hospital) - Small cell carcinoma, hypercalcemic type
New York (SUNY Stony Brook University Hospital) - Small cell carcinoma, hypercalcemic type
New York (Westchester Medical Center) - Small cell tumor, hypercalcemic type
North Carolina (Wake Forest University School of Medicine) - Small cell carcinoma, hypercalcemic type
Ohio (University of Toledo Medical Center) - Small cell carcinoma, hypercalcemic type
Pennsylvania (Conemaugh Memorial Hospital) - Small cell carcinoma of ovary, hypercalcemic type
Pennsylvania (Drexel University College of Medicine) - Small cell of the ovary, hypercalcemic type
Puerto Rico (University of Puerto Rico) - Small cell carcinoma of hypercalcemic type
Tennessee, Knoxville - Small cell carcinoma of hypercalcemic type
Texas (Crystal Beach) - Undifferentiated carcinoma consistent with small cell features
Texas, Lubbock - Undifferentiated carcinoma
Wisconsin, Madison - Small cell carcinoma, hypercalcemic type
Australia (St. Vincent's Hospital) - Small cell carcinoma of hypercalcemic type
Canada (Pasqua Hospital) - Small cell carcinoma, hypercalcemic type
England (John Radcliffe Hospital) - Small cell carcinoma of hypercalcemic type
Ireland (University Hospital Galway) - Small cell undifferentiated carcinoma of hypercalcemic type
Japan (Asashi General Hospital) - Small cell carcinoma of hypercalcemic type
Japan (Shizuoka Tokushu-kai Hospital) - Sertoli-Leydig cell tumor, poorly differentiated
Japan, Tokyo - Small cell carcinoma
Singapore (Freelance/Locum Practice) - Small cell carcinoma, hypercalcemic type
Spain (Povisa Medical Center) - Juvenile granulosa cell tumor

Case 7 - Diagnosis:

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

Case 7 - References:

Small cell carcinoma of the ovary with hypercalcemia and ectopic parathyroid hormone production. *Arch Pathol Lab Med* 2005; Apr;129(4): p531-3 Chen L; Dinh TA; Haque A.

 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.

 Small cell of the ovary, hypercalcemic type -- analysis of combined experience and recommendation for management. A GCIg study. *Gynecol Oncol* 2006; Feb;100(2): p233-8 Harrison ML; Hoskins P; et al.

 Large cell variant of small cell carcinoma, hypercalcemic type, of primary peritoneal origin. *Gynecol Oncol* 2005; Jan;96(1): p249-53 Popielek DA; Kumar AR; Mittal K.

 Small cell carcinoma of the female genital tract. *Semin Oncol* 2007; Feb;34(1): p57-63 Crowder S; Tuller E.

Case No. 8, Accession No. 31174

November 2010

Carlsbad (Genoptix Medical Laboratory) - Fibroadenoma
Glendale - Juvenile fibroadenoma
Loma Linda - Juvenile cystosarcoma phyllodes
Sacramento (U.C. Davis Medical Center) - Juvenile fibroadenoma
San Diego (Naval Medical Center) - Juvenile fibroadenoma
Florida (Naples Pathology Associates) - Phyllodes tumor
Georgia, Atlanta - Low grade phyllodes tumor
Illinois (St. Mary's Hospital) - Phyllodes tumor
Illinois (Heartland Regional Medical Center) - Juvenile fibroadenoma
Kansas (Coffeyville Regional Medical Center) - Juvenile fibroadenoma
Kansas (Peterson Laboratory Services) - Phyllodes
Maryland (University of Maryland Medical Center Residents) - Fibroadenoma

Massachusetts (BWH Pathology) - Low grade phyllodes tumor
New York (Albany Medical Center) - Juvenile fibroadenoma
New York (Buffalo General Hospital) - Benign phyllodes tumor
New York (SUNY Stony Brook University Hospital) - Phyllodes tumor
New York (Westchester Medical Center) - Malignant phyllodes tumor
North Carolina (Wake Forest University School of Medicine) - Borderline phyllodes tumor
Ohio (University of Toledo Medical Center) - Phyllodes tumor
Pennsylvania (Conemaugh Memorial Hospital) - Phyllodes tumor
Pennsylvania (Drexel University College of Medicine) - Phyllodes tumor
Puerto Rico (University of Puerto Rico) - Juvenile phyllodes tumor, borderline
Tennessee, Knoxville - Benign phyllodes tumor
Texas (Crystal Beach) - Fibroadenoma consistent with cystic changes
Texas, Lubbock - Phyllodes tumor
Wisconsin, Madison - Phyllodes tumor
Australia (St. Vincent's Hospital) - Borderline phyllodes tumor, breast
Canada (Pasqua Hospital) - Phyllodes tumor
England (John Radcliffe Hospital) - Borderline phyllodes tumor
Ireland (University Hospital Galway) - Phyllodes
Japan (Asashi General Hospital) - Phyllodes tumor
Japan (Shizuoka Tokushu-kai Hospital) - Juvenile fibroadenoma
Japan, Tokyo - Fibroadenoma
Singapore (Freelance/Locum Practice) - Fibroepithelial lesion, phyllodes
Spain (Povisa Medical Center) - Juvenile fibroadenoma

Case 8 - Diagnosis:

Phyllodes tumor (juvenile), breast
 T-04000, M-90213

Case 8 - References:

Case report of a 30.8 pound cystosarcoma phyllodes of breast. *J Ark Med Soc* 2009; Dec;106(7): p134-6. Hiers C; Cook J; Sales E.

Major response to sunitinib (Sutene) in metastatic malignant phyllodes tumor of breast. *Invest New Drugs* 2009; Aug;27(4): p387-8. Park IH; Kwon Y; et al.

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Phyllodes tumor of the breast in an adolescent girl. *Pediatr Hematol Oncol* 2008; Jan-Feb;25(1): p79-82. Cecen E; Uysal KM; et al.

A 69-year-old woman with a vulvar lesion. Phyllodes tumor of the vulva. *Arch Pathol Lab Med* 2006; Jan;130(1): pe11-2. Mariappan MR; Lagera JE; et al.

Phyllodes tumor with pseudoangiomatous stroma hyperplasia. *Breast J* 2005; Jul-Aug;11(4): p285-7. Khoury T; Hurd T; Tan D.

Case No. 9, Accession No. 31180

November 2010

Carlsbad (Genoptix Medical Laboratory) - Angiosarcoma, high grade
Glendale - Metaplastic carcinoma with osseous metaplasia
Loma Linda - Sclerosing adenosis consistent with area of infarction
Sacramento (U.C. Davis Medical Center) - Angiosarcoma with osseous metaplasia
San Diego (Naval Medical Center) - Osteosarcoma
Florida (Naples Pathology Associates) - Metaplastic carcinoma resembling osteosarcoma

Georgia, Atlanta - Metaplastic carcinoma with osteosarcomatous differentiation
Illinois (St. Mary's Hospital) - Metaplastic carcinoma
Illinois (Heartland Regional Medical Center) - Osseous neoplasm consistent with metaplastic carcinoma
Kansas (Coffeyville Regional Medical Center) - Sarcoma
Kansas (Peterson Laboratory Services) - Osteosarcoma
Maryland (University of Maryland Medical Center Residents) - Differential diagnosis includes metaplastic (matrix producing) carcinoma and primary extraskeletal osteosarcoma
Massachusetts (BWH Pathology) - Angiosarcoma
New York (Albany Medical Center) - Osteosarcoma
New York (Buffalo General Hospital) - Primary angiosarcoma
New York (SUNY Stony Brook University Hospital) - Primary breast osteosarcoma vs. metaplastic carcinoma
New York (Westchester Medical Center) - Metaplastic carcinoma of the breast
North Carolina (Wake Forest University School of Medicine) - Extraskeletal osteosarcoma
Ohio (University of Toledo Medical Center) - Osteosarcoma
Pennsylvania (Conemaugh Memorial Hospital) - Osteosarcoma of breast
Pennsylvania (Drexel University College of Medicine) - Metaplastic carcinoma
Puerto Rico (University of Puerto Rico) - Osteosarcoma of breast
Tennessee, Knoxville - Osteosarcoma
Texas (Crystal Beach) - Osseous metaplasia consistent with malignant transformation (osteosarcoma) in atypical lobular lesion
Texas, Lubbock - Osteosarcoma
Wisconsin, Madison - Osteosarcoma
Australia (St. Vincent's Hospital) - Osteosarcoma, breast
Canada (Pasqua Hospital) - Osteogenic sarcoma
England (John Radcliffe Hospital) - Malignant phyllodes tumor
Ireland (University Hospital Galway) - Metaplastic carcinoma with osteosarcomatous differentiation vs. osteogenic sarcoma
Japan (Asahi General Hospital) - Metaplastic carcinoma
Japan (Shizuoka Tokushu-kai Hospital) - Metaplastic carcinoma
Japan, Tokyo - Angiosarcoma
Singapore (Freelance/Locum Practice) - Malignant osteogenic tumor
Spain (Povisa Medical Center) - Osteosarcoma

Case 9 - Diagnosis:

Osteosarcoma, breast
 T-04000, M-91803

Outside Consultation: Stanford Pathology Consultants; Michael Hendrickson, M.D., "Most consistent with pure osteogenic sarcoma."

Case 9 - References:

Synchronize primary breast osteosarcoma and contralateral benign cystosarcoma phylloides: radiologic and pathologic imaging. *Breast J* 2008; Jan-Feb;14(1): p109-10. Uner A; Ozturk B; et al.

Primary osteosarcoma of the breast: report of 2 cases. *Arch Pathol Lab Med* 2007; May;131(5): p792-5. Bahrami A; Resetkova E; et al.

Primary mammary osteogenic sarcoma. *Histol Histopathol* 2007; Apr;22(4): p373-7. Khaldi L; Athanasiou ET; Hadjitheofilou CT

Primary osteogenic sarcoma of the breast: cytomorphic study of 3 cases with histologic correlation. *Acta Cytol* 2007; May-Jun;51(3): p443-50. Trihia H; Valavanis C; et al.

Malignant phyllodes tumor with associated osteosarcomatous, chondrosarcomatous, and liposarcomatous overgrowth. *APMIS* 2007; Apr;115(4): p367-70. Tomas D; Bujas T; et al.

Phyllodes tumor with osteosarcomatous differentiation: a comparative immunohistochemical study between epithelial and mesenchymal cells. *Tumori* 2006; Jul-Aug;92(4): p340-6. Ribeiro-Silva A; Zambelli Ramalho LN; Zucoloto S.

Case No. 10, Accession No. 31138

November 2010

Carlsbad (Genoptix Medical Laboratory) - Metaplastic carcinoma
Glendale - Post radiation high-grade osteosarcoma
Loma Linda - Post radiation osteosarcoma, cell wall
Sacramento (U.C. Davis Medical Center) - Osteosarcoma
San Diego (Naval Medical Center) - Osteosarcoma
Florida (Naples Pathology Associates) - Post radiation sarcoma
Georgia, Atlanta - Osteosarcoma, chondroblastic type
Illinois (St. Mary's Hospital) - Osteogenic chondrosarcoma
Illinois (Heartland Regional Medical Center) - Metastatic carcinoma consistent with breast metaplastic carcinoma
Kansas (Coffeyville Regional Medical Center) - Osteosarcoma
Kansas (Peterson Laboratory Services) - Metaplastic carcinoma
Maryland (University of Maryland Medical Center Residents) - Chondroblastic osteosarcoma
Massachusetts (BWH Pathology) - Metaplastic carcinoma
New York (Albany Medical Center) - Metaplastic carcinoma
New York (Buffalo General Hospital) - Post radiotherapy angiosarcoma
New York (SUNY Stony Brook University Hospital) - Osteosarcoma
New York (Westchester Medical Center) - Osteosarcoma
North Carolina (Wake Forest University School of Medicine) - Osteosarcoma, likely radiation-induced
Ohio (University of Toledo Medical Center) - Osteosarcoma
Pennsylvania (Conemaugh Memorial Hospital) - High grade osteosarcoma
Pennsylvania (Drexel University College of Medicine) - Post radiation osteosarcoma
Puerto Rico (University of Puerto Rico) - Osteosarcoma, post radiation
Tennessee, Knoxville - Osteosarcoma
Texas (Crystal Beach) - Post radiation sarcoma (giant cell tumor, malignant (1); Malignant fibrous histiocytoma, etc (1)
Texas, Lubbock - Osteosarcoma
Wisconsin, Madison - High grade sarcoma
Australia (St. Vincent's Hospital) - Osteosarcoma (radiation induced), breast
Canada (Pasqua Hospital) - Post radiation (osteo) sarcoma
England (John Radcliffe Hospital) - Post radiotherapy sarcoma with heterologous chondroid and osteoclastic elements
Ireland (University Hospital Galway) - Osteogenic sarcoma with angiosarcoma component
Japan (Asashi General Hospital) - Metaplastic carcinoma
Japan (Shizuoka Tokushu-kai Hospital) - Pleomorphic malignant fibrous histiocytoma
Japan, Tokyo - Osteosarcoma
Singapore (Freelance/Locum Practice) - Osteosarcoma
Spain (Povisa Medical Center) - Osteosarcoma

Case 10 - Diagnosis:

Metastatic metaplastic carcinoma with osteosarcomatous overgrowth, possibly radiation-related, chest wall
T-04000, M-80103

Case 10 - References:

Matrix-producing carcinoma of the breast: an aggressive subtype of metaplastic carcinoma. *Am J Surg Pathol* 2009; Apr;33(4): p534-41. Downs-Kelly E; Nayeemuddin KM; et al.

Breast cancer with cartilaginous and/or osseous metaplasia diagnosed by lymph nodal metastasis: a case report. *Acta Med Okayama* 2009; Dec;63(6): p367-71. Tsukuda K; Tsuji H; et al.

Metaplastic carcinoma of breast with osseous metaplasia. *Indian J Pathol Microbiol* 2007; Jul;50(3): p610-1. Pattankar VL; Anita AM; et al.

Metaplastic breast carcinoma with osseous differentiation: a case report. *South Med J* 2006; Feb;99(2): p168-70 Pollock JM; Green A; et al.

Primary osteogenic sarcoma of the breast: cytomorphologic study of 3 cases with histologic correlation. *Acta Cytol* 2007; May-Jun;51(3): p443-50. Trihia H; Valavanis C; et al.