



CALIFORNIA
TUMOR TISSUE REGISTRY

BREAST PATHOLOGY

Minutes – Subscription B

March 2013



SUGGESTED READING (General Topics from Recent Literature):

- Fritchie KJ, Goldblum JR, et al. The expanded histologic spectrum of myxoid liposarcoma with an emphasis on newly described patterns: Implications for diagnosis on small biopsy specimens. *Am J Clin Pathol* 2012; 137 (February): 229-239.
- Finkelstein A, Levy GH, et al. Addenda in Pathology Reports: Trends and their implications. *Am J Clin Pathol* 2012; 137 (April): 606-611.
- Brimo F, Epstein JI. Immunohistochemical pitfalls in prostate pathology. *Hum Pathol* 2012; 43 (March): 313-324
- Olsom MT, Ali SZ. Myxofibrosarcoma: Cytomorphologic findings and differential diagnosis on fine needle aspiration. *Acta Cytol* 2012; 56 (January): 15-24
- Renshaw A, Gould EW. Quality assurance measures for critical diagnoses in anatomic pathology. *Am J Clin Pathol* 2012; 137 (March): 466-469

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
Web site & Case of the Month: www.cttr.org

FILE DIAGNOSES

CTTR Subscription B

March 2013

Case 1:

Benign papilloma, breast

Case 2:

Phyllodes tumor, low grade, breast

Case 3:

Phyllodes tumor, malignant, breast

Case 4:

Papillary cystic adenomyoepithelioma, breast

Case 5:

Myofibroblastoma, breast

Case 6:

Invasive lobular carcinoma, breast

Case 7:

Apocrine DCIS, breast

Case 8:

Medullary carcinoma, breast

Case 9:

Mucinous (colloid) carcinoma, breast

Case 10:

Solid papillary carcinoma, breast

Glendale - Intraductal papilloma
Newport Beach - Intraductal papilloma
Orange (UCI Medical Center) - Juvenile papillomatosis
Orinda (Kaiser-Permanente) - Juvenile fibroadenoma
Alabama (Cunningham Pathology) - Juvenile FA
Delaware (Armed Forces Medical Examiner System) - Juvenile papillomatosis
Georgia, Atlanta - Juvenile papillomatosis
Illinois (Heartland Regional Medical Center) - Papilloma with intraductal adenoma
Maryland (University of Maryland Medical Center) - Juvenile papilloma
Ohio (Summa Health System) - Juvenile papillomatosis
Oregon (Oregon Health and Science University) - Juvenile fibroadenoma
Pennsylvania (Conemaugh Memorial Medical Center) - Juvenile papillomatosis
Texas, Crystal Beach - Juvenile papillomatosis
Texas, Lubbock - Intraductal papilloma
Texas (Scott & White Memorial Hospital) - Juvenile papillomatosis
Tennessee, Knoxville - Intraductal papilloma
Wisconsin (Medical Assessment and Consultation, S.C.) - Benign papilloma
Wisconsin (Medical College of Wisconsin) - Intraductal papilloma
Australia (Royal Prince Alfred Hospital) - Benign papilloma
Australia (St. Vincent's Hospital) - Intraductal papilloma
Australia (Western Hospital, Victoria) - Intraductal papilloma
Canada (Pasqua Hospital) - Juvenile papillomatosis
Canada (University of Sherbrooke) - Intraductal papilloma, solid type, Breast
Ireland (Connelly Hospital) - Juvenile papillomatosis
Ireland (Galway Residents) - Juvenile papillomatosis
Japan (Asahi General Hospital) - Tubular adenoma
Japan, Setagaya-Ku - Intraductal papilloma
Puerto Rico (University of Puerto Rico) - Papillary ductal hyperplasia
Saudi Arabia (King Fahad Hospital Hofuf) - Papillary duct hyperplasia
Saudi Arabia (King Khalid University Hospital) - Florid mammary papillomatosis
United Kingdom (John Radcliffe Hospital) - Juvenile papillomatosis

Case 1 - Diagnosis:

Benign papilloma, breast

Case 1 - References:

Papilloma and papillary carcinoma.

Semin Diagn Pathol 2010 Feb;27(1): p13-30

Koerner F

Papillary lesions of the breast--accuracy of core biopsy.

Histopathology 2010 Mar;56(4): p481-8

Tse GM; Tan PH, et al.

Breast papillomas in the era of percutaneous needle biopsy.

Ann Surg Oncol 2007 Oct;14(10): p2979-84

Sohn V; Keylock J, et al.

A prospective study of the diagnostic accuracy of cytological criteria in the FNAB diagnosis of breast papillomas.

Diagn Cytopathol 2007 Aug;35(8): p465-75

Field A; Mak A

Microcalcification is an important factor in the management of breast intraductal papillomas diagnosed on core biopsy.

Am J Clin Pathol 2012 Dec;138(6): p789-95
Li X; Weaver O, et al.

Atypical papilloma diagnosed by sonographically guided 14-gauge core needle biopsy of breast mass.
AJR Am J Roentgenol 2010 May;194(5): p1397-402
Youk JH; Kim EK, et al.

Intraductal papilloma of ectopic breast tissue in axillary lymph node of a patient with a previous intraductal papilloma of ipsilateral breast: a case report and review of the literature.
Diagn Pathol 2010;5:17
Dzodic R; Stanojevic B, et al.

Case No. 2, Accession No. 26823

March 2013

Glendale - Cellular fibroadenoma
Newport Beach - Sclerosing adenosis
Orange (UCI Medical Center) - Low grade phyllodes
Orinda (Kaiser-Permanente) - Phyllodes tumor, borderline versus benign
Alabama (Cunningham Pathology) - Benign phyllodes
Delaware (Armed Forces Medical Examiner System) - Cellular fibroadenoma
Georgia, Atlanta - Fibroadenoma, pericanalicular variant
Illinois (Heartland Regional Medical Center) - Phyllodes tumor, Benign
Maryland (University of Maryland Medical Center) - Benign phyllodes
Ohio (Summa Health System) - Myoid hamartoma
Oregon (Oregon Health and Science University) - Fibroepithelial lesion, favor low grade (benign) phyllodes
Pennsylvania (Conemaugh Memorial Medical Center) - Fibroadenoma
Pennsylvania (Residents of Hahnemann University Hospital) - Neuroendocrine tumor
Texas, Crystal Beach - Fibroadenoma
Texas, Lubbock - Fibroadenoma
Texas (Scott & White Memorial Hospital) - Fibroadenoma
Tennessee, Knoxville - Fibroadenoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Low grade phyllodes neoplasm
Wisconsin (Medical College of Wisconsin) - Benign phyllodes
Australia (Royal Prince Alfred Hospital) - Fibroadenoma with myoid differentiation (differential: low grade phyllodes tumor)
Australia (St. Vincent's Hospital) - Fibroadenoma
Australia (Western Hospital, Victoria) - Adenomyoepithelioma, spindle cell type
Canada (Pasqua Hospital) - Phyllodes tumor
Canada (University of Sherbrooke) - Cellular fibroadenoma, Breast
Ireland (Connolly Hospital) - Phyllodes
Ireland (Galway Residents) - Fibroadenoma
Japan (Asahi General Hospital) - Phyllodes tumor, benign
Japan, Setagaya-Ku - Fibroadenoma
Puerto Rico (University of Puerto Rico) - Benign phyllodes tumor r/o borderline
Saudi Arabia (King Fahad Hospital Hofuf) - Benign phyllodes tumor
Saudi Arabia (King Khalid University Hospital) - Phyllodes tumor
United Kingdom (John Radcliffe Hospital) - Phyllodes tumor, benign

Case 2 - Diagnosis:

Phyllodes tumor, low grade, breast

Case 2 - References:

Phyllodes tumor of the breast: stromal overgrowth and histological classification are useful prognosis-predictive factors for local recurrence in patients with a positive surgical margin.

Jpn J Clin Oncol 2007 Oct;37(10): p730-6

Taira N; Takabatake D, et al.

Histological features useful in the distinction of phyllodes tumour and fibroadenoma on needle core biopsy of the breast.

Histopathology 2007 Sep;51(3): p336-44

Lee AH; Hodi Z et al.

Phyllodes tumor of the breast: correlation between MR findings and histologic grade.

Radiology 2006 Dec;241(3): p702-9

Yabuuchi H; Soeda H, et al.

Prognostic factors of phyllodes tumor of the breast.

Pathol Int 2006 Jun;56(6): p309-14

Roa JC; Tapia O, et al.

A 69-year-old woman with a vulvar lesion. Phyllodes tumor of the vulva.

Arch Pathol Lab Med 2006 Jan;130(1): p11-2

Mariappan MR; Lagera JE, et al.

Phyllodes tumor of the prostate.

J Urol 2005 Dec;174(6): p2373

Sauder KJ; MacLennan GT

Case No. 3, Accession No. 12922

March 2013

Glendale - High grade phyllodes tumor

Newport Beach - Malignant phyllodes tumor

Orange (UCI Medical Center) - Malignant phyllodes

Orinda (Kaiser-Permanente) - Malignant phyllodes tumor

Alabama (Cunningham Pathology) - Malignant phyllodes

Delaware (Armed Forces Medical Examiner System) - Malignant spindle cell neoplasm, favor spindle cell carcinoma

Georgia, Atlanta - Cytosarcoma phyllodes

Illinois (Heartland Regional Medical Center) - Phyllodes tumor, malignant

Maryland (University of Maryland Medical Center) - High grade phyllodes with stromal overgrowth

Ohio (Summa Health System) - Malignant phyllodes

Oregon (Oregon Health and Science University) - Malignant phyllodes

Pennsylvania (Conemaugh Memorial Medical Center) - Malignant phyllodes tumor

Pennsylvania (Residents of Hahnemann University Hospital) - Teratoma

Texas, Crystal Beach - Cystosarcoma phyllodes

Texas, Lubbock - Malignant spindle stroma with predominance of myofibroblastic proliferation

Texas (Scott & White Memorial Hospital) - Malignant phyllodes tumor

Tennessee, Knoxville - Malignant phyllodes tumor

Wisconsin (Medical Assessment and Consultation, S.C.) - High grade phyllodes neoplasm

Wisconsin (Medical College of Wisconsin) - Malignant phyllode VS metaplastic carcinoma

Australia (Royal Prince Alfred Hospital) - Malignant phyllodes tumor (differential: metaplastic carcinoma)

Australia (St. Vincent's Hospital) - Malignant phyllodes tumor

Australia (Western Hospital, Victoria) - Malignant spindle cell neoplasm with features suggestive of malignant phyllodes, needs IHC for keratin to rule out metaplastic carcinoma

Canada (Pasqua Hospital) - Malignant phyllodes tumor vs spindle cell carcinoma

Canada (University of Sherbrooke) - Phyllodes sarcoma, breast

Ireland (Connelly Hospital) - Sarcoma

Ireland (Galway Residents) - Malignant phyllodes tumor
Japan (Asahi General Hospital) - Malignant phyllodes tumor
Japan, Setagaya-Ku - Phyllodes tumor, malignant
Puerto Rico (University of Puerto Rico) - Malignant phyllodes tumor
Saudi Arabia (King Fahad Hospital Hofuf) - Malignant phyllodes tumor
Saudi Arabia (King Khalid University Hospital) - Malignant phyllodes tumor
United Kingdom (John Radcliffe Hospital) - Phyllodes tumor, malignant

Case 3 - Diagnosis:

Phyllodes tumor, malignant, breast

Case 3 - References:

Phyllodes tumor of borderline malignancy: seven year follow up with immunohistochemical study.
 Pathol Int 2005 Sep;55(9): p585-9
 Tomita T; Ren Y, et al.

Fine-needle sampling in malignant phyllodes tumors: clinicopathologic study of 22 cases seen at the Institut Curie.
 Diagn Cytopathol 2004 Aug;31(2): p71-6
 Vladescu T; Klijanienko J, 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.

Comparison of stromal CD10 expression in benign, borderline, and malignant phyllodes tumors among Egyptian female patients.
 Indian J Pathol Microbiol 2011 Oct-Dec;54(4): p741-4
 Ibrahim WS

Hormone receptors expression in phyllodes tumors of the breast.
 Anal Quant Cytol Histol 2012 Feb;34(1): p41-8
 Kim YH; Kim GE, et al.

Phyllodes tumor with malignant stromal morphology of the vulva: a case report and review of the literature.
 Int J Gynecol Pathol 2011 Mar;30(2): p198-202
 Fu L; Lau S, et al.

Case No. 4, Accession No. 31512

March 2013

Glendale - Non-invasive papillary carcinoma
Newport Beach - Adenomyoepithelioma
Orange (UCI Medical Center) - Epithelial myoepithelioma
Orinda (Kaiser-Permanente) - Adenomyoepithelioma versus pleomorphic adenoma
Alabama (Cunningham Pathology) - Intraductal papilloma
Delaware (Armed Forces Medical Examiner System) - Encysted papillary carcinoma
Georgia, Atlanta - Atypical papilloma
Illinois (Heartland Regional Medical Center) - Adenomyoepithelioma
Maryland (University of Maryland Medical Center) - Adenomyoepithelioma
Oregon (Oregon Health and Science University) - Adenomyoepithelioma
Pennsylvania (Conemaugh Memorial Medical Center) - Mucoepidermoid carcinoma
Pennsylvania (Residents of Hahnemann University Hospital) - Neurofibroma
Texas, Crystal Beach - Intraductal papillary carcinoma
Texas, Lubbock - Adenosarcoma
Texas (Scott & White Memorial Hospital) - Intraductal papilloma
Tennessee, Knoxville - Adenomyoepithelioma

Wisconsin (Medical Assessment and Consultation, S.C.) - Benign Adenomyoepithelioma
Wisconsin (Medical College of Wisconsin) - Adenomyoepithelioma
Australia (Royal Prince Alfred Hospital) - Adenomyoepithelioma
Australia (St. Vincent's Hospital) - Adenomyoepithelioma
Australia (Western Hospital, Victoria) - Adenomyoepithelioma, adenosis type
Canada (Pasqua Hospital) - Adenomyoepithelioma
Canada (University of Sherbrooke) - Intraductal papilloma, complex, breast
Ireland (Connelly Hospital) - Myoepithelioma
Ireland (Galway Residents) - Adenomyoepithelioma
Japan (Asahi General Hospital) - Intraductal papilloma
Japan, Setagaya-Ku - Atypical intraductal papilloma
Puerto Rico (University of Puerto Rico) - Adenomyoepithelioma
Saudi Arabia (King Fahad Hospital Hofuf) - Adenomyoepithelioma
Saudi Arabia (King Khalid University Hospital) - Adenomyoepithelioma
United Kingdom (John Radcliffe Hospital) - Encysted papillary carcinoma vs Metastatic adenocarcinoma

Case 4 - Diagnosis:

Papillary cystic adenomyoepithelioma, breast

Consultation, Dr. Peter Rosen: "Papillary cystic adenomyoepithelioma"

Case 4 - References:

Cystic adenomyoepithelioma of the breast.

Breast 2004 Aug;13(4): p356-8

Papaevangelou A; Pougouras I

Fine-needle aspiration cytology of mammary adenomyoepithelioma: a study of 12 patients.

Cancer 2006 Aug 25;108(4): p250-6

Iyengar P; Ali SZ; Brogi E

Collagenous spherulosis in an adenomyoepithelioma of the breast.

J Clin Pathol 2004 Jan;57(1): p83-6

Reis-Filho JS; Fulford LG; Crebassa B; Carpentier S; Lakhani SR

Adenomyoepithelioma of the breast: description of allelic imbalance and microsatellite instability.

Histopathology 2005 Feb;46(2): p230-1

Salto-Tellez M; Putti TC; Lee CK; Chiu LL; Koay ES

Adenomyoepithelioma of the breast: a review stressing its propensity for malignant transformation.

J Clin Pathol 2011 Jun;64(6): p477-84

Hayes MM

Myoepithelial carcinoma arising in an adenomyoepithelioma of the breast: a case report of a rare entity.

Indian J Pathol Microbiol 2010 Apr-Jun;53(2): p310-2

Khurana A; Jalpota Y

Malignant adenomyoepithelioma of the breast combined with invasive lobular carcinoma.

Pathol Int 2009 Mar;59(3): p179-84

Honda Y; Iyama K

Case No. 5, Accession No. 31427

March 2013

Glendale - Metaplastic spindle cell carcinoma

Newport Beach - Myofibroblastoma
Orange (UCI Medical Center) - Myofibroblastoma
Orinda (Kaiser-Permanente) - Myofibroblastoma
Alabama (Cunningham Pathology) - Myofibroblastoma
Delaware (Armed Forces Medical Examiner System) - Myofibroblastoma
Georgia, Atlanta - Myofibroblastoma
Illinois (Heartland Regional Medical Center) - Benign spindle cell stromal tumor, favor myofibroblastoma
Maryland (University of Maryland Medical Center) - Myofibroblastoma
Ohio (Summa Health System) - Myofibroblastoma
Oregon (Oregon Health and Science University) - Myofibroblastoma
Pennsylvania (Conemaugh Memorial Medical Center) - Myofibroblastoma
Pennsylvania (Residents of Hahnemann University Hospital) - Mucinous adenocarcinoma
Texas, Crystal Beach - Sarcoma (Angiosarcoma)
Texas, Lubbock - Solitary fibrous tumor with cartilaginous metaplasia
Texas (Scott & White Memorial Hospital) - Benign stromal spindle cell tumor
Tennessee, Knoxville - Myofibroblastoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Chondromyolipoma (Benign hamartoma)
Wisconsin (Medical College of Wisconsin) - Myofibroblastoma
Australia (Royal Prince Alfred Hospital) - Myofibroblastoma
Australia (St. Vincent's Hospital) - Myofibroblastoma
Australia (Western Hospital, Victoria) - Myofibroblastoma
Canada (Pasqua Hospital) - Myofibroblastoma
Canada (University of Sherbrooke) - Myofibroblastoma with focal chondroid metaplasia, breast
Ireland (Connelly Hospital) - Myofibroblastoma
Ireland (Galway Residents) - Myofibroblastoma
Japan (Asahi General Hospital) - Myofibroblastoma
Japan, Setagaya-Ku - Leiomyoma
Puerto Rico (University of Puerto Rico) - Myofibroblastoma
Saudi Arabia (King Fahad Hospital Hofuf) - Myofibroblastoma
Saudi Arabia (King Khalid University Hospital) - Mammary hamartoma
United Kingdom (John Radcliffe Hospital) - Myofibroblastoma

Case 5 - Diagnosis:

Myofibroblastoma, breast

Case 5 - References:

Mammary myofibroblastoma: report of two cases with fine-needle aspiration cytology and review of the cytology literature.

Diagn Cytopathol 2004 Jun;30(6): p406-10

Odashiro AN; Odashiro Miji LN; Odashiro DN; Nguyen GK

Mammary myofibroblastoma: a tumor with a wide morphologic spectrum.

Arch Pathol Lab Med 2008 Nov;132(11): p1813-20

Magro G

Epithelioid-cell myofibroblastoma of the breast: expanding the morphologic spectrum.

Am J Surg Pathol 2009 Jul;33(7): p1085-92

Magro G

Pathologic quiz case: a 72-year-old man with a well-circumscribed breast mass. Myofibroblastoma.

Arch Pathol Lab Med 2003 Oct;127(10): p415-6

Wang Y; Wen P

Vulvovaginal myofibroblastoma: expanding the morphological and immunohistochemical spectrum. A clinicopathologic study of 10 cases.

Hum Pathol 2012 Feb;43(2): p243-53

Magro G; Caltabiano R; Kacerovska D; Vecchio GM; Kazakov D; Michal M

Myofibroblastoma of the male breast: a rare entity of increasing frequency that can be diagnosed on needle core biopsy.

Histopathology 2007 Oct;51(4): p568-72

Desrosiers L; Rezk S; Larkin A; Khan A; Li C

Case No. 6, Accession No. 30799

March 2013

Glendale - Invasive lobular carcinoma

Newport Beach - Lobular carcinoma

Orange (UCI Medical Center) - Lobular carcinoma, pleomorphic type

Orinda (Kaiser-Permanente) - Invasive lobular carcinoma

Alabama (Cunningham Pathology) - Invasive lobular

Delaware (Armed Forces Medical Examiner System) - Invasive lobular carcinoma

Georgia, Atlanta - Invasive lobular carcinoma with colonization of fibroadenoma

Illinois (Heartland Regional Medical Center) - Invasive lobular carcinoma, pleomorphic

Maryland (University of Maryland Medical Center) - Invasive lobular carcinoma

Ohio (Summa Health System) - Invasive lobular carcinoma

Oregon (Oregon Health and Science University) - Invasive lobular carcinoma, grade 2 of 3

Pennsylvania (Conemaugh Memorial Medical Center) - Invasive lobular carcinoma

Pennsylvania (Residents of Hahnemann University Hospital) - Epithelial hemangioepithelioma

Texas, Crystal Beach - Invasive lobular carcinoma

Texas, Lubbock - Well differentiated endocrine carcinoma

Texas (Scott & White Memorial Hospital) - Lobular carcinoma

Tennessee, Knoxville - Pleomorphic lobular carcinoma

Wisconsin (Medical Assessment and Consultation, S.C.) - Malignant neoplasm (DDX ILC vs. Lymphoma vs Leukemia; do IHC/FC)

Wisconsin (Medical College of Wisconsin) - Invasive lobular carcinoma

Australia (Royal Prince Alfred Hospital) - Pleomorphic infiltrating lobular carcinoma

Australia (St. Vincent's Hospital) - Pleomorphic lobular carcinoma

Australia (Western Hospital, Victoria) - Invasive lobular carcinoma

Canada (Pasqua Hospital) - Pleomorphic lobular carcinoma

Canada (University of Sherbrooke) - Lobular carcinoma, breast

Ireland (Connelly Hospital) - Pleomorphic lobular carcinoma

Ireland (Galway Residents) - Lobular carcinoma

Japan (Asahi General Hospital) - Lobular carcinoma

Japan, Setagaya-Ku - Plasmacytoma

Puerto Rico (University of Puerto Rico) - Invasive pleomorphic lobular carcinoma vs. hematopoietic malignancy

Saudi Arabia (King Fahad Hospital Hofuf) - Invasive lobular carcinoma

Saudi Arabia (King Khalid University Hospital) - Invasive lobular carcinoma of the breast

United Kingdom (John Radcliffe Hospital) - Infiltrating lobular carcinoma

Case 6 - Diagnosis:

Invasive lobular carcinoma, breast

Case 6 - References:

In situ and invasive lobular neoplasia of the breast.

Histopathology 2008 Jan;52(1): p58-66

Hanby AM; Hughes TA

A case of ectopic lobular carcinoma in the axilla.

Am Surg 2012 Jan;78(1): pE10-1

Ma C; Yu Z, et al.

Lobular neoplasia: is surgical excision warranted?
Am Surg 2008 Feb;74(2): p172-7
Sohn VY; Arthurs ZM, et al.

Clinical importance of histologic grading of lobular carcinoma in situ in breast core needle biopsy specimens: current issues and controversies.
Am J Clin Pathol 2010 May;133(5): p767-71
Gao F; Carter G, et al.

Case No. 7, Accession No. 19911

March 2013

Glendale - DCIS, micropapillary/apocrine type
Newport Beach - Apocrine DCIS
Orange (UCI Medical Center) - Apocrine DCIS
Orinda (Kaiser-Permanente) - Apocrine DCIS
Alabama (Cunningham Pathology) - Apocrine Carcinoma (in situ)
Delaware (Armed Forces Medical Examiner System) - Low grade DCIS with apocrine change
Georgia, Atlanta - Apocrine Carcinoma
Illinois (Heartland Regional Medical Center) - Apocrine ductal carcinoma in situ, low grade
Maryland (University of Maryland Medical Center) - Apocrine DCIS, low grade
Ohio (Summa Health System) - Apocrine ductal carcinoma in situ
Oregon (Oregon Health and Science University) - Apocrine DCIS, low grade, cannot exclude microinvasion
Pennsylvania (Conemaugh Memorial Medical Center) - Apocrine ductal carcinoma in situ
Pennsylvania (Residents of Hahnemann University Hospital) - Mesothelioma
Texas, Crystal Beach - Florid papillomatosis with apocrine metaplasia
Texas, Lubbock - Apocrine Carcinoma
Texas (Scott & White Memorial Hospital) - Apocrine ductal carcinoma in situ
Tennessee, Knoxville - Apocrine DCIS
Wisconsin (Medical Assessment and Consultation, S.C.) - Intraductal apocrine carcinoma
Wisconsin (Medical College of Wisconsin) - Micropapillary DCIS with apocrine change
Australia (Royal Prince Alfred Hospital) - Micropapillary DCIS, with background of cystic hypersecretory apocrine
Australia (St. Vincent's Hospital) - Apocrine ductal carcinoma in-situ
Australia (Western Hospital, Victoria) - Apocrine DCIS with focal micropapillary DCIS
Canada (Pasqua Hospital) - Apocrine DCIS
Canada (University of Sherbrooke) - DCIS, Apocrine variant, breast
Ireland (Connelly Hospital) - Apocrine DCIS
Ireland (Galway Residents) - Apocrine ductal carcinoma in situ
Japan (Asahi General Hospital) - Apocrine adenosis
Japan, Setagaya-Ku - Apocrine adenoma
Puerto Rico (University of Puerto Rico) -High grade micropapillary ductal carcinoma in situ r/o microinvasion
Saudi Arabia (King Fahad Hospital Hofuf) - Apocrine and micropapillary Intraductal carcinoma
Saudi Arabia (King Khalid University Hospital) - Ductal carcinoma in situ of the apocrine type
United Kingdom (John Radcliffe Hospital) - Apocrine carcinoma

Case 7 - Diagnosis:

Apocrine DCIS, breast

Case 7 - References:

Apocrine ductal carcinoma in situ involving a sclerosing lesion with adenosis: report of a case.
Arch Pathol Lab Med 2009 Nov;133(11): p1817-21
Visscher DW

The challenge of apocrine proliferations of the breast: a morphologic approach.
Pathol Res Pract 2009;205(3): p155-64

Masood S; Rosa M

An update on apocrine lesions of the breast.
Histopathology 2008 Jan;52(1): p3-10
O'Malley FP; Bane A

Lack of myoepithelium in apocrine glands of the breast does not necessarily imply malignancy.
Histopathology 2008 Jan;52(2): p253-5
Cserni G

Cell turnover in apocrine metaplasia and apocrine adenosis of the breast.
Ann Diagn Pathol 2010 Feb;14(1): p1-7
Elayat G; Selim AG; Wells CA

Atypical apocrine adenosis of the breast: long-term follow-up in 37 patients.
Arch Pathol Lab Med 2012 Feb;136(2): p179-82
Fuehrer N; Hartmann L, et al.

Case No. 8, Accession No. 18396

March 2013

Glendale - Poorly differentiated carcinoma
Newport Beach - Medullary carcinoma
Orange (UCI Medical Center) - Medullary carcinoma
Orinda (Kaiser-Permanente) - High grade invasive ductal carcinoma with medullary features versus medullary carcinoma
Alabama (Cunningham Pathology) - High grade carcinoma
Delaware (Armed Forces Medical Examiner System) - Medullary carcinoma
Georgia, Atlanta - Medullary carcinoma
Illinois (Heartland Regional Medical Center) - Invasive ductal carcinoma, grade 3
Maryland (University of Maryland Medical Center) - High grade carcinoma with medullary features
Ohio (Summa Health System) - Medullary carcinoma
Oregon (Oregon Health and Science University) - Invasive ductal carcinoma, grade 3 of 3
Pennsylvania (Conemaugh Memorial Medical Center) - Carcinoma with medullary features
Texas, Crystal Beach - Papillary carcinoma intraductal
Texas, Lubbock - Poorly differentiated infiltrating carcinoma
Texas (Scott & White Memorial Hospital) - High grade ductal carcinoma
Tennessee, Knoxville - Poorly differentiated carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Medullary carcinoma
Wisconsin (Medical College of Wisconsin) - Medullary carcinoma
Australia (Royal Prince Alfred Hospital) - Basal-like carcinoma, ?BRCA1 positive (further stains required)
Australia (St. Vincent's Hospital) - Invasive ductal carcinoma, no special type (grade 3)
Australia (Western Hospital, Victoria) - High grade invasive ductal carcinoma, features of basal phenotype and medullary carcinoma. BRCA-1 mutation testing has to be considered
Canada (Pasqua Hospital) - High grade invasive duct carcinoma
Canada (University of Sherbrooke) - Poorly differentiated carcinoma, breast
Ireland (Connelly Hospital) - Medullary carcinoma
Ireland (Galway Residents) - Grade 3, invasive ductal carcinoma with features suspicious of basal phenotype
Japan (Asahi General Hospital) - Medullary carcinoma
Japan, Setagaya-Ku - Ductal carcinoma, invasive
Puerto Rico (University of Puerto Rico) - Carcinoma with medullary features
Saudi Arabia (King Fahad Hospital Hofuf) - Medullary carcinoma favor basal like carcinoma
Saudi Arabia (King Khalid University Hospital) - Medullary carcinoma
United Kingdom (John Radcliffe Hospital) - Medullary carcinoma

Case 8 - Diagnosis:

Medullary carcinoma, breast

Case 8 - References:

Carcinoma of the breast with medullary-like features: diagnostic challenges and relationship with BRCA1 and EZH2 functions.

Arch Pathol Lab Med 2009 Nov;133(11): p1822-5
Kleer CG

Fine needle aspiration cytologic features of medullary carcinoma of the breast: a study of 20 cases with histologic correlation.

Acta Cytol 2009 Mar-Apr;53(2): p165-73
Akbulut M; Zekioglu O, et al.

Rare (new) entities of the breast and medullary carcinoma.

Pathology 2009 Jan;41(1): p48-56
Foschini MP; Eusebi V

Distinguishing medullary carcinoma of the breast from high-grade hormone receptor-negative invasive ductal carcinoma: an immunohistochemical approach.

Histopathology 2010 Jun;56(7): p852-9
Flucke U; Flucke MT, et al.

Synchronous bilateral medullary carcinoma of breast: is it metastasis or second primary?

J Cancer Res Ther 2012 Jan-Mar;8(1): p129-31
Permi HS; Kishan Prasad HL, et al.

Metaplastic and medullary mammary carcinomas do not express mammaglobin.

Am J Clin Pathol 2012 May;137(5): p747-52
Reyes C; Gomez-Fernandez C; Nadji M

Case No. 9, Accession No. 23279

March 2013

Glendale - Mucinous carcinoma

Newport Beach - Medullary carcinoma

Orange (UCI Medical Center) - Colloid carcinoma

Orinda (Kaiser-Permanente) - Mucinous carcinoma

Alabama (Cunningham Pathology) - Mucinous carcinoma

Delaware (Armed Forces Medical Examiner System) - Mucinous carcinoma

Georgia, Atlanta - Colloid/Mucinous carcinoma, type B

Illinois (Heartland Regional Medical Center) - Invasive carcinoma, with mucinous component

Maryland (University of Maryland Medical Center) - Mucinous (Colloid) carcinoma

Ohio (Summa Health System) - Mucinous (Colloid) carcinoma

Oregon (Oregon Health and Science University) - Mucinous carcinoma, grade 2 of 3

Pennsylvania (Conemaugh Memorial Medical Center) - Mucinous carcinoma

Pennsylvania (Residents of Hahnemann University Hospital) - Adenocarcinoma in situ

Texas, Crystal Beach - Mucinous (Colloid) carcinoma

Texas, Lubbock - Metaplastic carcinoma

Texas (Scott & White Memorial Hospital) - Mucinous carcinoma

Tennessee, Knoxville - Mucinous carcinoma

Wisconsin (Medical Assessment and Consultation, S.C.) - Mucinous carcinoma

Wisconsin (Medical College of Wisconsin) - Mucinous carcinoma

Australia (Royal Prince Alfred Hospital) - Invasive mucinous carcinoma

Australia (St. Vincent's Hospital) - Mucinous carcinoma

Australia (Western Hospital, Victoria) - Mucinous carcinoma
Canada (Pasqua Hospital) - Mucinous carcinoma
Canada (University of Sherbrooke) - Mucinous carcinoma, hypercellular type, breast
Ireland (Connelly Hospital) - Colloid carcinoma
Ireland (Galway Residents) - Mucinous adenocarcinoma
Japan (Asahi General Hospital) - Mucinous carcinoma
Japan, Setagaya-Ku - Ductal carcinoma
Puerto Rico (University of Puerto Rico) - Mucinous carcinoma
Saudi Arabia (King Fahad Hospital Hofuf) - Mucinous carcinoma
Saudi Arabia (King Khalid University Hospital) - Mucinous carcinoma
United Kingdom (John Radcliffe Hospital) - Mucinous carcinoma

Case 9 - Diagnosis:

Mucinous (colloid) carcinoma, breast

Case 9 - References:

Pure mucinous carcinoma of the breast with extensive psammomatous calcification.
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 Rao P; Lyons B

Mammary mucinous carcinoma with marked cytoplasmic hyalinization. A report of 2 cases with emphasis on fine needle aspiration cytologic findings.
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 Diagn Cytopathol 2012 Jul;40(7): p624-8
 Sentani K; Tashiro T, et al.

Distinguishing benign dissecting mucin (stromal mucin pools) from invasive mucinous carcinoma.
 Adv Anat Pathol 2008 Jan;15(1): p1-17
 Molavi D; Argani P

Expression of mucins (MUC1, MUC2, MUC5AC and MUC6) in mucinous carcinoma of the breast: comparison with invasive ductal carcinoma.
 Histopathology 2003 Jan;42(1): p26-36
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March 2013

Glendale - Cribriform carcinoma
Newport Beach - Invasive papillary carcinoma
Orange (UCI Medical Center) - Cribriform carcinoma
Orinda (Kaiser-Permanente) - Solid papillary carcinoma
Alabama (Cunningham Pathology) - Invasive ductal with endocrine features (carcinoid)
Delaware (Armed Forces Medical Examiner System) - Invasive papillary carcinoma
Georgia, Atlanta - Malignant epithelioid tumor with neuroendocrine features ; rule out metastasis
Illinois (Heartland Regional Medical Center) - Cribriform ductal carcinoma, invasive
Maryland (University of Maryland Medical Center) - Solid papillary carcinoma with neuroendocrine features
Ohio (Summa Health System) - Neuroendocrine carcinoma (likely metastatic)
Oregon (Oregon Health and Science University) - Neuroendocrine carcinoma, grade 2 of 3
Pennsylvania (Conemaugh Memorial Medical Center) - Solid papillary carcinoma with neuroendocrine differentiation
Pennsylvania (Residents of Hahnemann University Hospital) - Choriocarcinoma
Texas, Crystal Beach - Adenocarcinoma papillary

Texas, Lubbock - Poorly differentiated endocrine carcinoma
Texas (Scott & White Memorial Hospital) - Neuroendocrine carcinoma
Tennessee, Knoxville - Neuroendocrine carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Neuroendocrine neoplasm (carcinoid)
Wisconsin (Medical College of Wisconsin) - Intraductal papillary carcinoma
Australia (Royal Prince Alfred Hospital) - Infiltrating ductal carcinoma (NOS) with ?neuroendocrine features
Australia (St. Vincent's Hospital) - Neuroendocrine carcinoma
Australia (Western Hospital, Victoria) - Neoplastic lesion with papillary and cribriform architecture and neuroendocrine features. Differential diagnosis: atypical neuroendocrine neoplasm, solid papillary carcinoma (needs immunostain, clinical and radiological correlation)
Canada (Pasqua Hospital) - Invasive cribriform carcinoma
Canada (University of Sherbrooke) - Papillary DCIS, Tall hyperchromatic, stratified cells, breast
Ireland (Connelly Hospital) - Solid papillary carcinoma
Ireland (Galway Residents) - Cribriform carcinoma
Japan (Asahi General Hospital) - Myoepithelial carcinoma
Japan, Setagaya-Ku - Ductal Carcinoma
Puerto Rico (University of Puerto Rico) - Solid papillary carcinoma with neuroendocrine features vs. true neuroendocrine carcinoma
Saudi Arabia (King Fahad Hospital Hofuf) - Mammary carcinoma with endocrine features
Saudi Arabia (King Khalid University Hospital) - Papillary carcinoma
United Kingdom (John Radcliffe Hospital) - Papillary carcinoma

Case 10 - Diagnosis:

Solid papillary carcinoma, breast

Consultation, City of Hope (1983): "Papillary carcinoma"

Case 10 - References:

Solid papillary carcinoma of the breast: a pathologically and clinically distinct breast tumor.

Arch Pathol Lab Med 2012 Oct;136(10): p1308-11

Saremian J; Rosa M

Fine needle aspiration cytology of solid papillary carcinoma of the breast. A report of four cases.

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Myoepithelial cells in solid variant of intraductal papillary carcinoma of the breast: a potential diagnostic pitfall and a proposal of an immunohistochemical panel in the differential diagnosis with intraductal papilloma with usual ductal hyperplasia.

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Clinicopathologic analysis of solid papillary carcinoma of the breast and associated invasive carcinomas.

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Nassar H; Qureshi H, et al.

Solid-papillary carcinoma of the breast: clinicopathological study of 20 cases.

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Otsuki Y; Yamada M, et al.

Solid papillary ductal carcinoma in situ versus usual ductal hyperplasia in the breast: a potentially difficult distinction resolved by cytokeratin 5/6.

Human Pathol 2006 Jul;37(7): p787-93

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