



CALIFORNIA
TUMOR TISSUE REGISTRY

PATHOLOGY OF ENDOCRINE ORGANS

Minutes – Subscription A

October 2011



SUGGESTED READING (General Topics from Recent Literature):

The birth of endocrine pathology: How Erdheim misunderstood parathyroids. *Virchows Arch* 2010; Sep;457(3): p283-90. Vermeulen AH.

Endocrine tumors of the appendix: a pathologic review. *Arch Pathol Lab Med* 2010; Jun;134(6): p871-5. Deschamps L; Couvelard A.

Endocrine tumours of the pancreas. *Histopathology* 2010; May;56(6): p669-82 Verbeke CS.

Adrenocortical tumors: an integrated clinical, pathologic, and molecular approach at the University of Michigan. *Arch Pathol Lab Med* 2010; Oct;134(10): p1440-3. Giordano TJ.

Controversies in thyroid pathology: thyroid capsule invasion and extrathyroidal extension. *Ann Surg Oncol* 2010; Feb;17(2): p386-91. Mete O; Rotstein L; Asa SL.

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FILE DIAGNOSES

CTTR Subscription A

October 2011

Case 1:

Pheochromocytoma, adrenal
T-93000, M-87000

Case 2:

Microcystic adenoma/serous microcystic adenoma, pancreas
T-59000, M-81400

Case 3:

Solid pseudopapillary tumor, pancreas
T-59000, M-03090

Case 4:

Parathyroid carcinoma, parathyroid
T-97000, M-80103

Case 5:

Hyalinizing trabecular adenoma, thyroid
T-96000, M-81900

Case 6:

Papillary carcinoma, follicular variant, thyroid
T-96000, M-83403

Case 7:

Papillary carcinoma with tall cell features, thyroid
T-96000, M-80503

Case 8:

Medullary carcinoma, thyroid
T-96000, M-85103

Case 9:

Papillary thyroid carcinoma, insular pattern, thyroid
T-96000, M-80503

Case 10:

Diffuse large B-cell lymphoma arising in extranodal marginal zone B-cell lymphoma, thyroid
T-96000, M-95903

Arcadia (ABC Laboratories) - Pheochromocytoma
Arkansas (Associated Pathologists) - Pheochromocytoma
Baldwin Park (Kaiser Permanente) - Pheochromocytoma (4)
Fontana (Kaiser Foundation Hospital) - Pheochromocytoma
Hayward (St. Rose Hospital) - Pheochromocytoma
Lakewood (LRVA) - Pheochromocytoma
Oakland (Alameda County Medical Center) - Pheochromocytoma
Oxnard (St. John's Regional Medical Center) - Pheochromocytoma
San Diego (Naval Medical Center) - Pheochromocytoma
Santa Barbara (Miramonte Laboratory) - Pheochromocytoma
Woodland Hills (Kaiser Permanente) - Pheochromocytoma
Colorado (McKee Medical Center) - Pheochromocytoma
Florida (Gastroenterology Associates of Ocala) - Pheochromocytoma
Georgia, Atlanta - Pheochromocytoma
Illinois (Heartland Regional Medical Center) - Pheochromocytoma
Indiana, Indianapolis - Pheochromocytoma
Iowa (Allen Memorial Hospital) - Pheochromocytoma
Maryland (University of Maryland) - Pheochromocytoma
Massachusetts (Tufts Medical Center) - Pheochromocytoma
Massachusetts (University of Massachusetts Medical Center) - Pheochromocytoma, adrenal gland
Minnesota (Fairview Ridges Hospital) - Pheochromocytoma
Missouri (Missouri Delta Medical Center) - Pheochromocytoma (2)
Nebraska (Creighton University Medical Center) - Pheochromocytoma
New York (Buffalo General Hospital Residents) - Pheochromocytoma
New York (SUNY Stony Brook University Hospital) - Pheochromocytoma
Ohio, Columbus - Pheochromocytoma
Ohio, Union Town - Pheochromocytoma
Illinois (Loyola University of Chicago) - Pheochromocytoma
Pennsylvania (Conemaugh Memorial Medical Center) - Pheochromocytoma
Pennsylvania (Drexel University College of Medicine) - Pheochromocytoma
Pennsylvania (Lehigh Valley Hospital) - Pheochromocytoma
Pennsylvania (Magee Women's Hospital) - Pheochromocytoma
South Carolina (Lexington Medical Center) - Pheochromocytoma
Texas, Crystal Beach - Pheochromocytoma
Texas (Lexington Medical Center) - Pheochromocytoma
Texas (Scott and White Hospital Residents) - Pheochromocytoma
Washington (Seattle, VAMC) - Pheochromocytoma
West Virginia (Greenbrier Valley Medical Center) - Pheochromocytoma
Wisconsin, Madison - Pheochromocytoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Pheochromocytoma (adrenal medullary paraganglioma)
Australia (Royal Hobart Hospital) - Pheochromocytoma
Australia (Sullivan Nicolaides Pathology) - Pheochromocytoma
Canada (Pasqua Hospital) - Pheochromocytoma
Canada (University of Sherbrooke) - Pheochromocytoma
Japan (Aichi Medical University Hospital) - Pheochromocytoma
Japan (Asahi General Hospital) - Pheochromocytoma (2)
Japan (Setagaya-Ku) - Pheochromocytoma
Japan (University of Yamanashi) - Pheochromocytoma
Oman (Khoulal Hospital) - Pheochromocytoma

Case 1 - Diagnosis:

Pheochromocytoma, adrenal
 T-93000, M-87000

Case 1 - References:

- Shen WT; Grogan R; Vriens M; Clark OH; Duh QY. One hundred two patients with pheochromocytoma treated at a single institution since the introduction of laparoscopic adrenalectomy. *Arch Surg* 2010; Sep;145(9): p893-7.
- Tavangar SM; Shojae A, et al. Immunohistochemical expression of Ki67, c-erbB-2, and c-kit antigens in benign and malignant pheochromocytoma. *Pathol Res Pract* 2010; May 15;206(5): p305-9.
- Zografos GN; Vasiliadis GK, et al. Pheochromocytoma associated with neurofibromatosis type 1: concepts and current trends. *Cancer*. 2006; Jun; 13(2):415-25.
- Meyer-Rochow GY; Sidhu SB. Pheochromocytoma and paraganglioma. *Cancer Treat Res* 2010;;153:135-62.
- Waguespack SG; Rich T, et al. A current review of the etiology, diagnosis, and treatment of pediatric pheochromocytoma and paraganglioma. *J Clin Endocrinol Metab* 2010; May;95(5): p2023-37.
- Freel EM; Stanson AW, et al. Adrenal venous sampling for catecholamines: a normal value study. *J Clin Endocrinol Metab* 2010; Mar;95(3): p1328-32.
- Nieman LK. Approach to the patient with an adrenal incidentaloma. *J Clin Endocrinol Metab* 2010; Sep;95(9): p4106-13.

Case No. 2, Accession No. 29040

October 2011

Arcadia (ABC Laboratories) - Pancreatic cystadenoma
Arkansas (Associated Pathologists) - Microcystic serous cystadenoma
Baldwin Park (Kaiser Permanente) - Microcystic serous tumor (4)
Fontana (Kaiser Foundation Hospital) - Serous microcystic cystadenoma
Hayward (St. Rose Hospital) - Microcystic serous cystadenoma
Lakewood (LRVA) - Serous microcystic adenomatous neoplasm
Oakland (Alameda County Medical Center) - Microcystic serous cystadenoma
Oxnard (St. John's Regional Medical Center) - Microcystic adenoma
San Diego (Naval Medical Center) - Serous cystadenoma
Santa Barbara (Miramonte Laboratory) - Serous microcystic adenoma
Woodland Hills (Kaiser Permanente) - Microcystic serous cystadenoma
Colorado (McKee Medical Center) - Microcystic cystadenoma
Florida (Gastroenterology Associates of Ocala) - Microcystic serous cystadenoma
Georgia, Atlanta - Microcystic serous adenoma
Illinois (Heartland Regional Medical Center) - Microcystic serous cystadenoma
Indiana, Indianapolis - Serous cystadenoma
Iowa (Allen Memorial Hospital) - Microcystic serous cystadenoma
Maryland (University of Maryland) - Serous microcystic adenoma (glycogen-rich cystadenoma)
Massachusetts (Tufts Medical Center) - Microcystic adenoma
Massachusetts (University of Massachusetts Medical Center) - Serous cystic adenoma, pancreas
Minnesota (Fairview Ridges Hospital) - Microcystic serous cystadenoma
Missouri (Missouri Delta Medical Center) - Microcystic serous cystadenoma (2)
Nebraska (Creighton University Medical Center) - Serous cystadenoma
New York (Buffalo General Hospital Residents) - Macrocystic serous cystadenoma
New York (SUNY Stony Brook University Hospital) - Serous cystadenoma
Ohio, Columbus - Acinar cell cystadenoma
Ohio, Union Town - Serous cystic neoplasm
Illinois (Loyola University of Chicago) - Parathyroid carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Serous microcystic adenoma
Pennsylvania (Drexel University College of Medicine) - Microcystic serous cystadenoma
Pennsylvania (Lehigh Valley Hospital) - Serous microcystic adenoma
Pennsylvania (Magee Women's Hospital) - Microcystic cystadenoma
South Carolina (Lexington Medical Center) - Serous microcystic adenoma
Texas, Crystal Beach - Serous adenoma
Texas (Lexington Medical Center) - Microcystic serous cystadenoma
Texas (Scott and White Hospital Residents) - Microcystic serous cystadenoma
Washington (Seattle, VAMC) - Cystadenoma, serous microcystic
West Virginia (Greenbrier Valley Medical Center) - Microcystic adenoma

Wisconsin, Madison - Serous microcystic adenoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Microcystic adenoma of pancreas (serous cystadenoma)
Australia (Royal Hobart Hospital) - Serous cystadenoma, pancreas
Australia (Sullivan Nicolaides Pathology) - Serous microcystic cystadenoma
Canada (Pasqua Hospital) - Microcystic serous adenoma
Canada (University of Sherbrooke) - Microcystic serous cystadenoma
Japan (Aichi Medical University Hospital) - Microcystic cystadenoma
Japan (Asahi General Hospital) - Microcystic serous cystadenoma (1); Mucinous cystadenoma (1)
Japan (Setagaya-Ku) - Serous cystadenoma
Japan (University of Yamanashi) - Serous cystadenoma
Oman (Khoula Hospital) - Serous microcystic adenoma

Case 2 - Diagnosis:

Microcystic adenoma/serous microcystic adenoma, pancreas
 T-59000, M-81400

Case 2 - References:

Verbesey JE; Munson JL. Pancreatic cystic neoplasms. *Surg Clin North Am* 2010; Apr;90(2): p411-25.
 Jacob S; Rawat P; Mark RP. Serous microcystic adenoma (glycogen rich cystadenoma) of the pancreas. *Indian J Pathol Microbiol* 2010; Jan-Mar;53(1): p106-8.
 Slukvin II; Hafez GR, et al. Combined serous microcystic adenoma and well-differentiated endocrine pancreatic neoplasm: a case report and review of the literature. *Arch Pathol Lab Med* 2003; Oct;127(10): p1369-72.
 Yasuhara Y; Sakaida N, et al. Serous microcystic adenoma (glycogen-rich cystadenoma) of the pancreas: study of 11 cases showing clinicopathological and immunohistochemical correlations. *Pathol Int* 2002; Apr;52(4): p307-12.
 Lal A; Bourtsos EP, et al. Microcystic adenoma of the pancreas: clinical, radiologic, and cytologic features. *Cancer* 2004; Oct 25;102(5): p288-94.
 Omeroglu A; Paner GP, et al. Serous microcystic adenoma of the pancreas. *Arch Pathol Lab Med* 2001; Dec;125(12): p1613-4.

Case No. 3, Accession No. 30022

October 2011

Arcadia (ABC Laboratories) - Solid, pseudopapillary tumor
Arkansas (Associated Pathologists) - Solid pseudopapillary neoplasm of pancreas
Baldwin Park (Kaiser Permanente) - Solid pseudopapillary tumor (3)
Fontana (Kaiser Foundation Hospital) - Solid pseudopapillary tumor
Hayward (St. Rose Hospital) - Solid pseudopapillary tumor
Lakewood (LRVA) - Solid and pseudopapillary tumor
Oakland (Alameda County Medical Center) - Solid pseudopapillary neoplasm
Oxnard (St. John's Regional Medical Center) - Solid pseudopapillary tumor
San Diego (Naval Medical Center) - Pancreatic pseudopapillary neoplasm
Santa Barbara (Miramonte Laboratory) - Solid pseudopapillary neoplasm
Woodland Hills (Kaiser Permanente) - Solid pseudopapillary tumor
Colorado (McKee Medical Center) - Solid pseudopapillary tumor
Florida (Gastroenterology Associates of Ocala) - Mucinous adenocarcinoma
Georgia, Atlanta - Solid pseudopapillary tumor
Illinois (Heartland Regional Medical Center) - Solid pseudopapillary neoplasm
Indiana, Indianapolis - Solid pseudopapillary tumor
Iowa (Allen Memorial Hospital) - Solid pseudopapillary neoplasm
Maryland (University of Maryland) - Solid pseudopapillary tumor
Massachusetts (Tufts Medical Center) - Acinic cell carcinoma
Massachusetts (University of Massachusetts Medical Center) - Solid pseudopapillary tumor, pancreas
Minnesota (Fairview Ridges Hospital) - Solid pseudopapillary neoplasm
Missouri (Missouri Delta Medical Center) - Solid pseudopapillary tumor (2)
Nebraska (Creighton University Medical Center) - Solid pseudopapillary neoplasm
New York (Buffalo General Hospital Residents) - Solid pseudopapillary neoplasm of the pancreas

New York (SUNY Stony Brook University Hospital) - Solid pseudopapillary neoplasm
Ohio, Columbus - Solid pseudopapillary tumor
Ohio, Union Town - Solid pseudopapillary tumor
Illinois (Loyola University of Chicago) - Solid pseudopapillary tumor
Pennsylvania (Conemaugh Memorial Medical Center) - Solid pseudopapillary tumor
Pennsylvania (Drexel University College of Medicine) - Solid pseudopapillary tumor
Pennsylvania (Lehigh Valley Hospital) - Solid pseudopapillary tumor
Pennsylvania (Magee Women's Hospital) - Solid pseudopapillary pancreatic tumor
South Carolina (Lexington Medical Center) - Solid pseudopapillary neoplasm
Texas, Crystal Beach - Solid pseudopapillary tumor
Texas (Lexington Medical Center) - Acinic carcinoma
Texas (Scott and White Hospital Residents) - Solid pseudopapillary neoplasm
Washington (Seattle, VAMC) - Epithelial neoplasm, so-called solid cystic papillary growth
West Virginia (Greenbrier Valley Medical Center) - Solid pseudopapillary neoplasm
Wisconsin, Madison - Solid pseudopapillary tumor of the pancreas
Wisconsin (Medical Assessment and Consultation, S.C.) - Solitary pseudopapillary neoplasm of pancreas
Australia (Royal Hobart Hospital) - Solid pseudopapillary neoplasm, pancreas
Australia (Sullivan Nicolaides Pathology) - Solid pseudopapillary tumor
Canada (Pasqua Hospital) - Solid pseudopapillary tumor
Canada (University of Sherbrooke) - Solid pseudopapillary neoplasm
Japan (Aichi Medical University Hospital) - Solid pseudopapillary tumor
Japan (Asahi General Hospital) - Solid pseudopapillary neoplasm (1); Alveolar soft part tumor (1)
Japan (Setagaya-Ku) - Solid pseudopapillary neoplasm, pancreas
Japan (University of Yamanashi) - Solid pseudopapillary tumor
Oman (Khoula Hospital) - Solid pseudopapillary tumor of pancreas

Case 3 - Diagnosis:

Solid pseudopapillary tumor, pancreas
 T-59000, M-03090

Case 3 - References:

Pettinato G; Di Vizio D, et al. Solid-pseudopapillary tumor of the pancreas: a neoplasm with distinct and highly characteristic cytological features. *Diagn Cytopathol* 2002; Dec;27(6): p325-34.
 Yaacobi E; Steiner Z, et al. Solid pseudopapillary tumor of the pancreas: raising awareness of a not so rare pancreatic tumor affecting young females. *Eur J Pediatr Surg* 2010; Jan;20(1): p62-5.
 Rebhandl W; Felberbauer FX, et al. Solid-pseudopapillary tumor of the pancreas (Frantz tumor) in children: report of four cases and review of the literature. *J Surg Oncol* 2001; Apr;76(4): p289-96.
 Bhanot P; Nealon WH, et al. Clinical, imaging, and cytopathological features of solid pseudopapillary tumor of the pancreas: a clinicopathologic study of three cases and review of the literature. *Diagn Cytopathol* 2005; Dec;33(6): p421-8.
 Adams AL; Siegal GP; Jhala NC. Solid pseudopapillary tumor of the pancreas: a review of salient clinical and pathologic features. *Adv Anat Pathol* 2008; Jan;15(1): p39-45.
 Geers C; Moulin P, et al. Solid and pseudopapillary tumor of the pancreas--review and new insights into pathogenesis. *Am J Surg Pathol* 2006; Oct;30(10): p1243-9.

Case No. 4, Accession No. 25808

October 2011

Arcadia (ABC Laboratories) - Parathyroid carcinoma
Arkansas (Associated Pathologists) - Parathyroid carcinoma
Baldwin Park (Kaiser Permanente) - Parathyroid neoplasm, favor adenoma (3); parathyroid carcinoma (1)
Fontana (Kaiser Foundation Hospital) - Parathyroid adenoma
Hayward (St. Rose Hospital) - Parathyroid neoplasm, probably malignant
Lakewood (LRVA) - Hemangioma
Oakland (Alameda County Medical Center) - Parathyroid carcinoma
Oxnard (St. John's Regional Medical Center) - Parathyroid adenoma

San Diego (Naval Medical Center) - Extracapsular hemorrhage of parathyroid adenoma
Santa Barbara (Miramonte Laboratory) - Parathyroid carcinoma
Woodland Hills (Kaiser Permanente) - Parathyroid carcinoma
Colorado (McKee Medical Center) - Parathyroid carcinoma
Florida (Gastroenterology Associates of Ocala) - Parathyroid adenoma
Georgia, Atlanta - Atypical parathyroid adenoma
Illinois (Heartland Regional Medical Center) - Parathyroid carcinoma
Indiana, Indianapolis - Parathyroid carcinoma
Iowa (Allen Memorial Hospital) - Parathyroid carcinoma
Maryland (University of Maryland) - Parathyroid carcinoma
Massachusetts (Tufts Medical Center) - Parathyroid carcinoma
Massachusetts (University of Massachusetts Medical Center) - Parathyroid carcinoma
Minnesota (Fairview Ridges Hospital) - Parathyroid carcinoma
Missouri (Missouri Delta Medical Center) - Parathyroid adenoma (2)
Nebraska (Creighton University Medical Center) - Parathyroid carcinoma
New York (Buffalo General Hospital Residents) - Parathyroid carcinoma
New York (SUNY Stony Brook University Hospital) - Parathyroid carcinoma
Ohio, Columbus - Well-differentiated parathyroid carcinoma
Ohio, Union Town - Parathyroid carcinoma
Illinois (Loyola University of Chicago) - Serous cystic neoplasm
Pennsylvania (Conemaugh Memorial Medical Center) - Parathyroid carcinoma
Pennsylvania (Drexel University College of Medicine) - Parathyroid carcinoma
Pennsylvania (Lehigh Valley Hospital) - Parathyroid neoplasm of undetermined malignant potential
Pennsylvania (Magee Women's Hospital) - Parathyroid carcinoma
South Carolina (Lexington Medical Center) - Parathyroid carcinoma
Texas, Crystal Beach - Parathyroid adenoma
Texas (Lexington Medical Center) - Parathyroid adenoma
Texas (Scott and White Hospital Residents) - Parathyroid carcinoma
Washington (Seattle, VAMC) - Endocrine epithelial neoplasm, parathyroid adenoma
West Virginia (Greenbrier Valley Medical Center) - Parathyroid carcinoma
Wisconsin, Madison - Parathyroid carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Parathyroid gland carcinoma
Australia (Royal Hobart Hospital) - Parathyroid carcinoma
Australia (Sullivan Nicolaides Pathology) - Parathyroid carcinoma
Canada (Pasqua Hospital) - Parathyroid adenoma
Canada (University of Sherbrooke) - Parathyroid carcinoma
Japan (Aichi Medical University Hospital) - Parathyroid adenoma and hemangioma
Japan (Asahi General Hospital) - Parathyroid carcinoma (2)
Japan (Setagaya-Ku) - Parathyroid adenoma
Japan (University of Yamanashi) - Parathyroid carcinoma
Oman (Khoulia Hospital) - Parathyroid carcinoma

Case 4 - Diagnosis:

Parathyroid carcinoma, parathyroid
 T-97000, M-80103

Case 4 - References:

Fernandez-Ranvier GG; Khanafshar E, et al. Parathyroid carcinoma, atypical parathyroid adenoma, or parathyromatosis? *Cancer* 2007; Jul 15;110(2): p255-64.
 Thompson LD. Parathyroid carcinoma. *Ear Nose Throat J* 2009; Jan;88(1): p722-4.
 Rodgers SE; Perrier ND. Parathyroid carcinoma. *Curr Opin Oncol* 2006; Jan;18(1): p16-22.
 Sharretts JM; Kebebew E; Simonds WF. Parathyroid cancer. *Semin Oncol* 2010; Dec;37(6): p580-90.
 De Lellis RA. Parathyroid carcinoma: an overview. *Adv Anat Pathol* 2005; Mar;12(2): p53-61.
 Kameyama K; De Lellis RA, et al. Parathyroid carcinomas: can clinical outcomes for parathyroid carcinomas be determined by histologic evaluation alone? *Endocr Pathol* 2002; Summer;13(2): p135-9.
 Iacobone M; Lumachi F; Favia G. Up-to-date on parathyroid carcinoma: analysis of an experience of 19 cases. *J Surg Oncol* 2004; Dec 15;88(4): p223-8.

Arcadia (ABC Laboratories) - Medullary carcinoma
Arkansas (Associated Pathologists) - Follicular adenoma with oncocytic features
Baldwin Park (Kaiser Permanente) - Hyalinizing trabecular adenoma (4)
Fontana (Kaiser Foundation Hospital) - Hyalinizing trabecular tumor
Hayward (St. Rose Hospital) - Medullary carcinoma, oncocytic type
Lakewood (LRVA) - Parathyroid carcinoma
Oakland (Alameda County Medical Center) - Hyalinizing trabecular tumor (adenoma)
Oxnard (St. John's Regional Medical Center) - Hurthle cell adenoma
San Diego (Naval Medical Center) - Solid variant, papillary carcinoma of thyroid
Santa Barbara (Miramonte Laboratory) - Hyalinizing trabecular tumor
Woodland Hills (Kaiser Permanente) - Hyalinizing trabecular tumor
Colorado (McKee Medical Center) - Hyalinizing trabecular adenoma
Florida (Gastroenterology Associates of Ocala) - Hyalinizing trabecular adenoma
Georgia, Atlanta - Hyalinizing trabecular adenoma
Illinois (Heartland Regional Medical Center) - Oncocytic (Hurthle cell) adenoma
Indiana, Indianapolis - Hyalinizing trabecular adenoma
Iowa (Allen Memorial Hospital) - Hyalinizing trabecular adenoma
Maryland (University of Maryland) - Hyalinizing trabecular adenoma
Massachusetts (Tufts Medical Center) - Hyalinizing trabecular tumor
Massachusetts (University of Massachusetts Medical Center) - Hyalinizing trabecular adenoma, thyroid
Minnesota (Fairview Ridges Hospital) - Hyalinizing trabecular adenoma
Missouri (Missouri Delta Medical Center) - Hyalinizing trabecular adenoma (2)
Nebraska (Creighton University Medical Center) - Hyalinizing trabecular adenoma
New York (Buffalo General Hospital Residents) - Hyalinizing trabecular adenoma
New York (SUNY Stony Brook University Hospital) - Hyalinizing trabecular tumor
Ohio, Columbus - Hyalinizing trabecular neoplasm
Ohio, Union Town - Hyalinizing trabecular adenoma
Illinois (Loyola University of Chicago) - Hyalinizing trabecular adenoma
Pennsylvania (Conemaugh Memorial Medical Center) - Hyalinizing trabecular tumor
Pennsylvania (Drexel University College of Medicine) - Papillary thyroid carcinoma
Pennsylvania (Lehigh Valley Hospital) - Medullary carcinoma
Pennsylvania (Magee Women's Hospital) - Hyalinizing trabecular adenoma
South Carolina (Lexington Medical Center) - Hyalinizing trabecular adenoma
Texas, Crystal Beach - Trabecular follicular adenoma within adenomatous nodular hyperplasia
Texas (Lexington Medical Center) - Hurthle cell adenoma
Texas (Scott and White Hospital Residents) - Hyalinizing trabecular neoplasm
Washington (Seattle, VAMC) - Encapsulated epithelial neoplasm, hyalinizing trabecular adenoma or medullary neoplasm
West Virginia (Greenbrier Valley Medical Center) - Hurthle cell neoplasm
Wisconsin, Madison - Hyalinizing trabecular adenoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Hyalinizing trabecular adenoma
Australia (Royal Hobart Hospital) - Hyalinizing trabecular tumor, thyroid
Australia (Sullivan Nicolaides Pathology) - Hyalinizing trabecular adenoma
Canada (Pasqua Hospital) - Hyalinizing trabecular adenoma
Canada (University of Sherbrooke) - Trabecular hyalinizing adenoma
Japan (Aichi Medical University Hospital) - Hyalinizing trabecular adenoma
Japan (Asahi General Hospital) - Hyalinizing trabecular tumor (2)
Japan (Setagaya-Ku) - Hyalinizing trabecular tumor
Japan (University of Yamanashi) - Hyalinizing trabecular tumor
Oman (Khoulia Hospital) - Hyalinizing trabecular adenoma

Case 5 - Diagnosis:

Hyalinizing trabecular adenoma, thyroid
 T-96000, M-81900

Case 5 - References:

- Casey MB; Sebo TJ; Carney JA. Hyalinizing trabecular adenoma of the thyroid gland: cytologic features in 29 cases. *Am J Surg Pathol* 2004; Jul;28(7): p859-67.
- Lloyd RV. Hyalinizing trabecular tumors of the thyroid: a variant of papillary carcinoma? *Adv Anat Pathol* 2002; Jan;9(1): p7-11.
- Carney JA; Hirokawa M, et al. Hyalinizing trabecular tumors of the thyroid gland are almost all benign. *Am J Surg Pathol* 2008; Dec;32(12): p1877-89.
- Galgano MT; Mills SE; Stelow EB. Hyalinizing trabecular adenoma of the thyroid revisited: a histologic and immunohistochemical study of thyroid lesions with prominent trabecular architecture and sclerosis. *Am J Surg Pathol* 2006; Oct;30(10): p1269-73.
- Evenson A; Mowschenson P, et al. Hyalinizing trabecular adenoma--an uncommon thyroid tumor frequently misdiagnosed as papillary or medullary thyroid carcinoma. *Am J Surg* 2007; Jun;193(6): p707-12.

Case No. 6, Accession No. 30739

October 2011

Arcadia (ABC Laboratories) - Colloid adenoma

Arkansas (Associated Pathologists) - Minimally invasive follicular carcinoma

Baldwin Park (Kaiser Permanente) - Papillary carcinoma of thyroid, follicular variant (4)

Fontana (Kaiser Foundation Hospital) - Papillary carcinoma

Hayward (St. Rose Hospital) - Follicular adenoma, thyroid

Lakewood (LRVA) - Well-differentiated follicular carcinoma consistent with capsular invasion

Oakland (Alameda County Medical Center) - Follicular adenoma

Oxnard (St. John's Regional Medical Center) - Follicular adenoma

San Diego (Naval Medical Center) - Hurthle cell adenoma

Santa Barbara (Miramonte Laboratory) - Follicular carcinoma

Woodland Hills (Kaiser Permanente) - Papillary carcinoma, follicular variant

Colorado (McKee Medical Center) - Follicular adenoma

Florida (Gastroenterology Associates of Ocala) - Follicular adenoma

Georgia, Atlanta - Hurthle cell adenoma

Illinois (Heartland Regional Medical Center) - Encapsulated follicular neoplasm, favor adenoma

Indiana, Indianapolis - Follicular adenoma

Iowa (Allen Memorial Hospital) - Follicular adenoma/adenomatoid nodule

Maryland (University of Maryland) - Follicular adenoma

Massachusetts (Tufts Medical Center) - Papillary thyroid carcinoma, follicular variant

Massachusetts (University of Massachusetts Medical Center) - Follicular adenoma, thyroid

Minnesota (Fairview Ridges Hospital) - Follicular adenoma

Missouri (Missouri Delta Medical Center) - Follicular variant of papillary cancer (2)

Nebraska (Creighton University Medical Center) - Follicular adenoma

New York (Buffalo General Hospital Residents) - Follicular neoplasm

New York (SUNY Stony Brook University Hospital) - Follicular adenoma

Ohio, Columbus - Follicular adenoma

Ohio, Union Town - Follicular adenoma

Illinois (Loyola University of Chicago) - Follicular adenoma

Pennsylvania (Conemaugh Memorial Medical Center) - Follicular neoplasm suspicious for minimal invasion

Pennsylvania (Drexel University College of Medicine) - Follicular adenoma

Pennsylvania (Lehigh Valley Hospital) - Follicular variant of papillary carcinoma

Pennsylvania (Magee Women's Hospital) - Follicular adenoma

South Carolina (Lexington Medical Center) - Papillary thyroid carcinoma, follicular variant

Texas, Crystal Beach - Follicular adenoma

Texas (Lexington Medical Center) - Follicular adenoma

Texas (Scott and White Hospital Residents) - Follicular adenoma

Washington (Seattle, VAMC) - Follicular adenoma

West Virginia (Greenbrier Valley Medical Center) - Follicular carcinoma

Wisconsin, Madison - Follicular adenoma

Wisconsin (Medical Assessment and Consultation, S.C.) - Thyroid follicular adenoma

Australia (Royal Hobart Hospital) - Follicular adenoma, thyroid
Australia (Sullivan Nicolaides Pathology) - Follicular adenoma
Canada (Pasqua Hospital) - Follicular adenoma
Canada (University of Sherbrooke) - Follicular adenoma
Japan (Aichi Medical University Hospital) - Follicular neoplasm
Japan (Asahi General Hospital) - Papillary carcinoma, follicular variant (1); Medullary carcinoma (1)
Japan (Setagaya-Ku) - Follicular adenoma
Japan (University of Yamanashi) - Follicular adenoma
Oman (Khoula Hospital) - Follicular adenoma

Case 6 - Diagnosis:

Papillary carcinoma, follicular variant, thyroid
 T-96000, M-83403

Case 6 - References:

Rosai J. The encapsulated follicular variant of papillary thyroid carcinoma: back to the drawing board. *Endocr Pathol* 2010; Mar;21(1): p7-11.
 Elsheikh TM; Asa SL; Chan JK; De Lellis RA; Heffess CS; Li Volsi VA; Wenig BM. Interobserver and intraobserver variation among experts in the diagnosis of thyroid follicular lesions with borderline nuclear features of papillary carcinoma. *Am J Clin Pathol* 2008; Nov;130(5): p736-44.
 Aron M; Mallik A; Verma K. Fine needle aspiration cytology of follicular variant of papillary carcinoma of the thyroid: Morphologic pointers to its diagnosis. *Acta Cytol* 2006; Nov-Dec;50(6): p663-8.
 Liu J; Singh B, et al. Follicular variant of papillary thyroid carcinoma: a clinicopathologic study of a problematic entity. *Cancer* 2006; Sep 15;107(6): p1255-64.
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Case No. 7, Accession No. 31182

October 2011

Arcadia (ABC Laboratories) - Papillary carcinoma
Arkansas (Associated Pathologists) - Papillary carcinoma
Baldwin Park (Kaiser Permanente) - Papillary carcinoma of thyroid, tall cell variant (4)
Fontana (Kaiser Foundation Hospital) - Papillary carcinoma
Hayward (St. Rose Hospital) - Papillary carcinoma, thyroid
Lakewood (LRVA) - Papillary thyrocarcinoma
Oakland (Alameda County Medical Center) - Papillary carcinoma, columnar variant
Oxnard (St. John's Regional Medical Center) - Follicular variant papillary carcinoma
San Diego (Naval Medical Center) - Papillary carcinoma with columnar features
Santa Barbara (Miramonte Laboratory) - Tall cell carcinoma
Woodland Hills (Kaiser Permanente) - Papillary carcinoma, columnar variant
Colorado (McKee Medical Center) - Papillary thyroid carcinoma
Florida (Gastroenterology Associates of Ocala) - Papillary carcinoma, tall cell variant
Georgia, Atlanta - Papillary carcinoma of thyroid
Illinois (Heartland Regional Medical Center) - Papillary carcinoma, tall cell variant
Indiana, Indianapolis - Papillary thyroid carcinoma
Iowa (Allen Memorial Hospital) - Papillary carcinoma
Maryland (University of Maryland) - Papillary thyroid carcinoma, columnar cell variant
Massachusetts (Tufts Medical Center) - Papillary thyroid carcinoma, tall cell variant
Massachusetts (University of Massachusetts Medical Center) - Tall cell variant of papillary thyroid carcinoma
Minnesota (Fairview Ridges Hospital) - Papillary carcinoma of the thyroid
Missouri (Missouri Delta Medical Center) - Papillary carcinoma (1); Papillary thyroid cancer consistent with trabecular areas (1)
Nebraska (Creighton University Medical Center) - Papillary carcinoma, tall cell variant
New York (Buffalo General Hospital Residents) - Papillary carcinoma of the thyroid
New York (SUNY Stony Brook University Hospital) - Papillary carcinoma, tall cell variant

Ohio, Columbus - Papillary thyroid carcinoma
Ohio, Union Town - Papillary carcinoma, columnar variant
Illinois (Loyola University of Chicago) - Tall cell variant of papillary carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Papillary thyroid carcinoma
Pennsylvania (Drexel University College of Medicine) - Papillary thyroid carcinoma, columnar cell variant
Pennsylvania (Lehigh Valley Hospital) - Papillary carcinoma
Pennsylvania (Magee Women's Hospital) - Papillary thyroid carcinoma, tall cell variant
South Carolina (Lexington Medical Center) - Papillary thyroid carcinoma
Texas, Crystal Beach - Papillary carcinoma (columnar cell variant, partial)
Texas (Lexington Medical Center) - Papillary carcinoma, tall cell variant
Texas (Scott and White Hospital Residents) - Papillary thyroid carcinoma
Washington (Seattle, VAMC) - Carcinoma, tall cell variant papillary carcinoma
West Virginia (Greenbrier Valley Medical Center) - Tall cell variant papillary carcinoma
Wisconsin, Madison - Papillary thyroid carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Papillary carcinoma of thyroid, tall cell variant
Australia (Royal Hobart Hospital) - Papillary carcinoma, thyroid (clear cell change probably artifactual)
Australia (Sullivan Nicolaides Pathology) - Papillary carcinoma, thyroid
Canada (Pasqua Hospital) - Papillary carcinoma, tall cell type
Canada (University of Sherbrooke) - Papillary thyroid carcinoma
Japan (Aichi Medical University Hospital) - Papillary carcinoma, columnar cell variant
Japan (Asahi General Hospital) - Papillary carcinoma, tall cell variant (2)
Japan (Setagaya-Ku) - Papillary carcinoma
Japan (University of Yamanashi) - Papillary carcinoma, tall cell variant
Oman (Khoulia Hospital) - Papillary carcinoma (clear cell variant)

Case 7 - Diagnosis:

Papillary carcinoma with tall cell features, thyroid
 T-96000, M-80503

Case 7 - References:

Li Volsi VA. Papillary carcinoma tall cell variant (TCV): a review. *Endocr Pathol* 2010; Mar;21(1): p12-5.
 Ghossein R; Livolsi VA Papillary thyroid carcinoma tall cell variant. *Thyroid* 2008; Nov;18(11): p1179-81
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 Urano M; Kiriya Y, et al. Tall cell variant of papillary thyroid carcinoma: Its characteristic features demonstrated by fine-needle aspiration cytology and immunohistochemical study. *Diagn Cytopathol* 2009; Oct;37(10): p732-7.
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Case No. 8, Accession No. 30733

October 2011

Arcadia (ABC Laboratories) - Medullary carcinoma
Arkansas (Associated Pathologists) - Medullary carcinoma
Baldwin Park (Kaiser Permanente) - Medullary carcinoma (4)
Fontana (Kaiser Foundation Hospital) - Medullary carcinoma
Hayward (St. Rose Hospital) - Medullary carcinoma
Lakewood (LRVA) - Medullary thyroid carcinoma
Oakland (Alameda County Medical Center) - Medullary carcinoma
Oxnard (St. John's Regional Medical Center) - Medullary carcinoma
San Diego (Naval Medical Center) - Medullary carcinoma
Santa Barbara (Miramonte Laboratory) - C-cell neoplasm
Woodland Hills (Kaiser Permanente) - Poorly differentiated thyroid carcinoma
Colorado (McKee Medical Center) - Medullary carcinoma
Florida (Gastroenterology Associates of Ocala) - Medullary carcinoma consistent with amyloid stroma
Georgia, Atlanta - Medullary carcinoma of thyroid

Illinois (Heartland Regional Medical Center) - Medullary carcinoma
Indiana, Indianapolis - Medullary thyroid carcinoma
Iowa (Allen Memorial Hospital) - Medullary carcinoma
Maryland (University of Maryland) - Medullary carcinoma
Massachusetts (Tufts Medical Center) - Medullary thyroid carcinoma
Massachusetts (University of Massachusetts Medical Center) - Medullary carcinoma, thyroid
Minnesota (Fairview Ridges Hospital) - Thyroid medullary carcinoma
Missouri (Missouri Delta Medical Center) - Medullary carcinoma (2)
Nebraska (Creighton University Medical Center) - Medullary carcinoma
New York (Buffalo General Hospital Residents) - Medullary carcinoma of the thyroid
New York (SUNY Stony Brook University Hospital) - Medullary carcinoma
Ohio, Columbus - Medullary thyroid carcinoma
Ohio, Union Town - Medullary carcinoma
Illinois (Loyola University of Chicago) - Medullary carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Medullary thyroid carcinoma
Pennsylvania (Drexel University College of Medicine) - Medullary carcinoma of thyroid
Pennsylvania (Lehigh Valley Hospital) - Medullary carcinoma
Pennsylvania (Magee Women's Hospital) - Medullary thyroid carcinoma
South Carolina (Lexington Medical Center) - Medullary thyroid carcinoma
Texas, Crystal Beach - Medullary carcinoma consistent with oncocyctic features and Hashimoto thyroiditis
Texas (Lexington Medical Center) - Medullary carcinoma
Texas (Scott and White Hospital Residents) - Medullary carcinoma
Washington (Seattle, VAMC) - Medullary carcinoma
West Virginia (Greenbrier Valley Medical Center) - Medullary carcinoma
Wisconsin, Madison - Medullary thyroid carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Hashimoto's (lymphocytic) thyroiditis and medullary carcinoma
Australia (Royal Hobart Hospital) - Medullary carcinoma, thyroid
Australia (Sullivan Nicolaides Pathology) - Medullary carcinoma, thyroid
Canada (Pasqua Hospital) - Medullary carcinoma
Canada (University of Sherbrooke) - Medullary thyroid carcinoma
Japan (Aichi Medical University Hospital) - Medullary carcinoma, small cell variant
Japan (Asahi General Hospital) - Medullary carcinoma (1); Parathyroid adenoma (1)
Japan (Setagaya-Ku) - Medullary carcinoma
Japan (University of Yamanashi) - Medullary carcinoma
Oman (Khoula Hospital) - Medullary carcinoma

Case 8 - Diagnosis:

Medullary carcinoma, thyroid
 T-96000, M-85103

Case 8 - References:

- Moo-Young TA; Traugott AL; Moley JF. Sporadic and familial medullary thyroid carcinoma: state of the art. *Surg Clin North Am* 2009; Oct;89(5): p1193-204.
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 Koperek O; Scheuba C, et al. Desmoplasia in medullary thyroid carcinoma: a reliable indicator of metastatic potential. *Histopathology* 2008; Apr;52(5): p623-30.

Arcadia (ABC Laboratories) - Follicular carcinoma
Arkansas (Associated Pathologists) - Follicular carcinoma
Baldwin Park (Kaiser Permanente) - Favor thyroid carcinoma, follicular (3); Poorly differentiated thyroid carcinoma (1);
Fontana (Kaiser Foundation Hospital) - Papillary carcinoma
Hayward (St. Rose Hospital) - Medullary carcinoma
Lakewood (LRVA) - Carcinoma of thyroid with clear cell features
Oakland (Alameda County Medical Center) - Follicular carcinoma
Oxnard (St. John's Regional Medical Center) - Follicular carcinoma
San Diego (Naval Medical Center) - Parathyroid
Santa Barbara (Miramonte Laboratory) - Medullary carcinoma
Woodland Hills (Kaiser Permanente) - Medullary carcinoma
Colorado (McKee Medical Center) - Follicular carcinoma
Florida (Gastroenterology Associates of Ocala) - Follicular carcinoma, poorly differentiated, insular type
Georgia, Atlanta - Poorly differentiated insular carcinoma of thyroid
Illinois (Heartland Regional Medical Center) - Microfollicular neoplasm
Indiana, Indianapolis - Paraganglioma of thyroid
Iowa (Allen Memorial Hospital) - Follicular adenoma, embryonal variant
Maryland (University of Maryland) - Follicular carcinoma
Massachusetts (Tufts Medical Center) - Paraganglioma
Massachusetts (University of Massachusetts Medical Center) - Poorly differentiated carcinoma arising from papillary thyroid carcinoma
Minnesota (Fairview Ridges Hospital) - Insular carcinoma
Missouri (Missouri Delta Medical Center) - Follicular carcinoma (2)
Nebraska (Creighton University Medical Center) - Follicular adenoma
New York (Buffalo General Hospital Residents) - Poorly differentiated, insular carcinoma
New York (SUNY Stony Brook University Hospital) - Follicular carcinoma
Ohio, Columbus - Anaplastic thyroid carcinoma arising in follicular carcinoma
Ohio, Union Town - Follicular carcinoma
Illinois (Loyola University of Chicago) - Medullary carcinoma
Pennsylvania (Conemaugh Memorial Medical Center) - Follicular carcinoma
Pennsylvania (Drexel University College of Medicine) - Medullary carcinoma of thyroid
Pennsylvania (Lehigh Valley Hospital) - Insular carcinoma
Pennsylvania (Magee Women's Hospital) - Poorly differentiated thyroid carcinoma, insular pattern
South Carolina (Lexington Medical Center) - Insular carcinoma
Texas, Crystal Beach - Papillary carcinoma, follicular variant
Texas (Lexington Medical Center) - Insular carcinoma
Texas (Scott and White Hospital Residents) - Follicular neoplasm with clear cell change
Washington (Seattle, VAMC) - Carcinoma, follicular vs. papillary variant
West Virginia (Greenbrier Valley Medical Center) - Adenocarcinoma, NOS
Wisconsin, Madison - Follicular neoplasm, rule out follicular carcinoma
Wisconsin (Medical Assessment and Consultation, S.C.) - Thyroid follicular carcinoma
Australia (Royal Hobart Hospital) - Poorly differentiated thyroid carcinoma, insular carcinoma
Australia (Sullivan Nicolaides Pathology) - Insular carcinoma, thyroid
Canada (Pasqua Hospital) - Poorly differentiated carcinoma
Canada (University of Sherbrooke) - Insular thyroid carcinoma
Japan (Aichi Medical University Hospital) - Paraganglioma
Japan (Asahi General Hospital) - Papillary carcinoma with insular component (1); Medullary carcinoma (1)
Japan (Setagaya-Ku) - Follicular carcinoma
Japan (University of Yamanashi) - Poorly differentiated carcinoma
Oman (Khoulia Hospital) - Differential diagnosis - Parathyroid gland (1); Follicular adenoma (1)

Case 9 - Diagnosis:

Papillary thyroid carcinoma, insular pattern, thyroid
 T-96000, M-80503

Case 9 - References:

- Oertel YC; Miyahara-Felipe L. Cytologic features of insular carcinoma of the thyroid: a case report. *Diagn Cytopathol* 2006; Aug;34(8): p572-5.
- Rufini V; Salvatori M, et al. Thyroid carcinomas with a variable insular component: prognostic significance of histopathologic patterns. *Cancer* 2007; Sep 15;110(6): p1209-17.
- Agha A; Glockzin G, et al. Insular carcinomas of the thyroid exhibit poor prognosis and long-term survival in comparison to follicular and papillary T4 carcinomas. *Langenbecks Arch Surg* 2007; Nov;392(6): p671-7.
- Volante M; Papotti M. Poorly differentiated thyroid carcinoma: 5 years after the 2004 WHO classification of endocrine tumours. *Endocr Pathol* 2010; Mar;21(1): p1-6.
- Lai HW; Lee CH, et al. Insular thyroid carcinoma: collective analysis of clinicohistologic prognostic factors and treatment effect with radioiodine or radiation therapy. *J Am Coll Surg* 2006; Nov;203(5): p715-22.

Case No. 10, Accession No. 31408

October 2011

- Arcadia (ABC Laboratories) - B-cell lymphoma
- Arkansas (Associated Pathologists) - Follicular lymphoma, grade III
- Baldwin Park (Kaiser Permanente) - Follicular B-cell lymphoma (4)
- Fontana (Kaiser Foundation Hospital) - Follicular lymphoma
- Hayward (St. Rose Hospital) - ML, follicular origin, grade 2
- Lakewood (LRVA) - B-cell lymphoma of follicular center cell origin
- Oakland (Alameda County Medical Center) - B-cell lymphoma
- Oxnard (St. John's Regional Medical Center) - Large B-cell lymphoma
- San Diego (Naval Medical Center) - Diffuse large B-cell lymphoma
- Santa Barbara (Miramonte Laboratory) - MALToma
- Woodland Hills (Kaiser Permanente) - Diffuse large B-cell lymphoma arising in an extranodal marginal zone B-cell lymphoma
- Colorado (McKee Medical Center) - Non-Hodgkin B-cell lymphoma, favor follicular lymphoma, grade II
- Florida (Gastroenterology Associates of Ocala) - Malignant lymphoma, B-cell nodular
- Georgia, Atlanta - Non-Hodgkin B-cell lymphoma
- Illinois (Heartland Regional Medical Center) - Follicular lymphoma, grade 3
- Indiana, Indianapolis - Diffuse large B-cell lymphoma
- Iowa (Allen Memorial Hospital) - Primary thyroid lymphoma
- Maryland (University of Maryland) - Mixed high-grade follicular lymphoma and diffuse large B-cell lymphoma
- Massachusetts (Tufts Medical Center) - MALT lymphoma
- Massachusetts (University of Massachusetts Medical Center) - MALT lymphoma, thyroid
- Minnesota (Fairview Ridges Hospital) - Marginal zone B-cell lymphoma, malt type
- Missouri (Missouri Delta Medical Center) - Follicular lymphoma (2)
- Nebraska (Creighton University Medical Center) - Marginal zone lymphoma
- New York (Buffalo General Hospital Residents) - Diffuse large B-cell lymphoma
- New York (SUNY Stony Brook University Hospital) - Low grade B-cell lymphoma
- Ohio, Columbus - Follicular lymphoma, grade 2, follicular pattern
- Ohio, Union Town - Malignant lymphoma
- Illinois (Loyola University of Chicago) - MALToma
- Pennsylvania (Conemaugh Memorial Medical Center) - DLBCL transformed from MALToma
- Pennsylvania (Drexel University College of Medicine) - Diffuse large B-cell lymphoma
- Pennsylvania (Lehigh Valley Hospital) - Large cell lymphoma
- Pennsylvania (Magee Women's Hospital) - Follicular lymphoma
- South Carolina (Lexington Medical Center) - Marginal zone lymphoma
- Texas, Crystal Beach - Marginal zone lymphoma
- Texas (Lexington Medical Center) - Nodular B-cell lymphoma
- Texas (Scott and White Hospital Residents) - Follicular lymphoma
- Washington (Seattle, VAMC) - Malignant lymphoma, B-cell, nodular and diffuse growth patterns
- West Virginia (Greenbrier Valley Medical Center) - Large cell lymphoma

Wisconsin, Madison - Large B-cell lymphoma

Wisconsin (Medical Assessment and Consultation, S.C.) - B-cell non-Hodgkin lymphoma, nodular and diffuse large cell type

Australia (Royal Hobart Hospital) - Extranodal marginal zone B-cell lymphoma, MALT type

Australia (Sullivan Nicolaides Pathology) - Non-Hodgkin lymphoma, follicular type

Canada (Pasqua Hospital) - Follicular lymphoma

Canada (University of Sherbrooke) - Follicular lymphoma of the thyroid, grade 3

Japan (Aichi Medical University Hospital) - Diffuse large B-cell lymphoma (MALT type)

Japan (Asahi General Hospital) - Follicular lymphoma (1); Malignant lymphoma (1)

Japan (Setagaya-Ku) - Follicular lymphoma

Japan (University of Yamanashi) - Follicular lymphoma

Oman (Khoulou Hospital) - Extranodal marginal zone B-cell lymphoma

Case 10 - Diagnosis:

Diffuse large B-cell lymphoma arising in extranodal marginal zone B-cell lymphoma, thyroid
T-96000, M-95903

Case 10 - References:

Gardini A; Saragoni L, et al. Simultaneous occurrence of primary diffuse large B-cell lymphoma and extranodal marginal zone (MALT) B-cell lymphoma in the gallbladder: a case report. *Pathologica* 2009; Dec;101(6): p230-4.

Dai CW; Zhang GS, et al. Thyroid diffuse large B cell lymphoma (DLBCL) following thyroid medullary cancer: long-term complete remission with R-CHOP therapy. *Ann Hematol* 2009; Jul;88(7): p701-2.

Ogawa T; Kanauchi H, et al. Diffuse large B-cell lymphoma in the thyroid gland associated with primary hyperparathyroidism. *Int J Clin Oncol* 2007; Feb;12(1): p48-51.

Kojima M; Nakamura N, et al. Marginal zone B-Cell lymphoma among primary B-Cell lymphoma of Waldeyer's ring: histopathologic and immunohistochemical study of 16 tonsillectomy specimens. *Int J Surg Pathol* 2008; Apr;16(2): p164-70.

Avenia N. Primary thyroid lymphomas. *G Chir* 2009; May;30(5): p197-200.