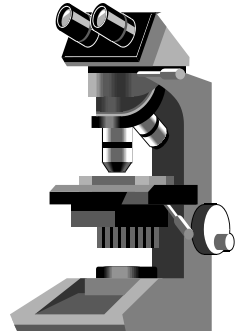


CALIFORNIA  
TUMOR TISSUE REGISTRY

## “ENDOCRINE PATHOLOGY”

Minutes – Subscription B

November 2002



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

- The Impact of the Polymerase Chain Reaction in Clinical Medicine. Post JC, Ehrlich GD. *JAMA*. 2000 Mar 22-29; 283(12):1544-1546.
- Warner-Lambert/Parke-Davis Award Lecture. Pathological and Physiological Double-Strand Breaks: Roles in Cancer, Aging, and the Immune System. Lieber MR. *Am J Pathol*. 1998 Nov; 153(5):1323-1332
- Physiology and Pathophysiology of Dendritic Cells. Wright-Browne V, McClain KL, Talpaz M, et al. *Hum Pathol*. 1997 May; 28(5):563-579
- Mechanisms of Smoking-Related Lung and Pancreatic Adenocarcinoma Development. Schuller HM. *Nat Rev Cancer*. 2002 Jun; 2(6):455-463.

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

## **FILE DIAGNOSES**

**CTTR Subscription B**

**November 2002**

**Case 1:**

**Multinodular (“adenomatous”) goiter**  
T-96000, M-71640

**Case 2:**

**Clear cell carcinoma, likely metastatic from renal primary, thyroid**  
T-96000, M-8310/3

**Case 3:**

**Papillary carcinoma, thyroid**  
T-96000, M-8050/3

**Case 4:**

**Sclerosing mucoepidermoid carcinoma with eosinophilia, thyroid**  
T-96000, M-8430/3

**Case 5:**

**Parathyroid neoplasm, favor carcinoma**  
T-97000, M-8010/3

**Case 6:**

**Serous microcystic cystadenoma, pancreas**  
T-59000, M-8441/0

**Case 7:**

**Pancreatic endocrine tumor**  
T-59000, M-8000/1

**Case 8:**

**Mucinous cystic tumor (cystadenoma), pancreas**  
T-59000, M-8470/0

**Case 9:**

**Pheochromocytoma, adrenal gland**  
T-93000, M-8700/0

**Case 10:**

**Adrenocortical neoplasm, favor adenoma**  
T-93000, M-81400

**Case No. 1, Accession No. 29212****November 2002**

Escondido - Adenomatoid nodule  
Glendale (Glendale Pathology Association) - Goiter  
Loma Linda - Nodular colloid goiter  
Orange (UCI Medical Center Residents) - Multinodular hyperplasia, thyroid  
San Diego - Adenomatoid nodule  
Arizona (Phoenix Memorial Hospital) - Follicular adenoma  
Arkansas, Little Rock - Goiter  
Colorado, Denver - Adenomatoid nodule  
Florida (Winter Haven Hospital) - Nodular goiter  
Florida (Hospital Pathologists) - Multinodular goiter  
Georgia, Decatur - Follicular adenoma  
Illinois (Marion Memorial Hospital) - Multinodular adenomatous goiter  
Indiana (Ball Memorial Hospital) - Nodular hyperplasia (nodular goiter)  
Indiana, Fort Wayne - Follicular adenoma, thyroid  
Kansas (Coffeyville Regional Medical Center) - Benign colloid nodule  
Maryland (National Naval Medical Center) - Adenomatoid nodule  
Massachusetts (Brigham & Women's Hospital) - Dominant nodule in multinodular goiter  
Michigan, Grand Rapids - Nodular goiter  
Michigan (St. Joseph Mercy Hospital) - Multinodular colloid goiter  
Nebraska (Good Samaritan Hospital) - Nodular hyperplasia  
New Mexico (University of New Mexico) - Adenomatous hyperplasia  
New York (Nassau University Medical Center Resident Study Group) - Nodular goiter, thyroid  
New York (Westchester Medical Center) - Nodular (adenomatous) hyperplasia of thyroid  
Ohio, Columbus - Multinodular goiter  
Ohio (Medical College of Ohio) - Follicular adenoma (colloid nodule)  
Pennsylvania (Allegheny General Hospital) - Multinodular goiter, benign  
Pennsylvania (Conemaugh Memorial Medical Center) - Multinodular goiter, thyroid  
Pennsylvania (Magee Women's Hospital) - Nodular hyperplasia  
Texas, Lubbock - Nodular goiter  
Texas, San Antonio - Adenomatous hyperplasia  
Texas (Scott & White Hospital) - Nodular goiter  
Utah (St. Mark's Hospital) - Multinodular goiter  
Washington, DC - Nodular goiter  
Canada (CUSE, Site Fleurimont) - Follicular adenoma  
Canada (Foothills Hospital) - Multinodular thyroid  
China (Sir Run Run Shaw Hospital) - Nodular goiter  
Japan, Chiba - Adenomatous goiter  
Japan (Hamamatsu University School of Medicine) - Adenomatous goiter  
Puerto Rico (University of Puerto Rico) - Nodular goiter  
Qatar (Hamad Medical Center) - Multinodular goiter (adenomatous hyperplasia)  
Spain (POVISA) - Follicular adenoma/nodular hyperplasia

**Case 1 - Diagnosis:****Multinodular ("adenomatous") goiter**

T-96000, M-71640

**Case 1 - References:**

- Bonnema SJ, Bennedbaek FN, Ladenson PW, et al. Management of The Nontoxic Multinodular Goiter: A North American Survey. *J Clin Endocrinol Metab.* 2002 Jan; 87(1):112-117.  
 DeGroot LJ. Treatment of Multinodular Goiter by Surgery. *J Endocrinol Invest.* 2001 Nov; 24(10):820-822  
 Al-Fifi S, Rodd C. Multinodular Goiter in Children. *J Pediatr Endocrinol Metab.* 2001 Jun; 14(6):749-756.  
 Thomusch O, Machens A, Sekulla C, et al. Multivariate Analysis of Risk Factors for Postoperative Complications in Benign Goiter Surgery: Prospective Multicenter Study in Germany. *World J Surg.* 2000 Nov; 24(11):1335-1341.  
 Rotondi M, Amato G, Del Buono A, et al. Postintervention Serum TSH Levels May Be Useful to Differentiate Patients Who Should Undergo Levothyroxine Suppressive Therapy After Thyroid Surgery for Multinodular Goiter in a Region with Moderate Iodine Deficiency. *Thyroid.* 2000 Dec; 10(12):1081-1085.

**Case No. 2, Accession No. 28965****November 2002**

Escondido - Metastatic renal cell carcinoma  
Glendale (Glendale Pathology Association) - Metastatic renal cell carcinoma, clear cell type  
Loma Linda - Renal cell carcinoma – metastasis to thyroid  
Orange (UCI Medical Center Residents) - Metastatic renal cell carcinoma, thyroid  
San Diego - Metastatic renal cell carcinoma  
Arizona (Phoenix Memorial Hospital) - Metastatic renal cell carcinoma  
Arkansas, Little Rock - Metastatic renal cell carcinoma  
Colorado, Denver - Parathyroid adenoma  
Florida (Winter Haven Hospital) - Metastatic renal cell carcinoma  
Florida (Hospital Pathologists) - Metastatic RCC (renal cell carcinoma)  
Georgia, Decatur - Clear cell carcinoma, favor metastatic renal cell carcinoma  
Illinois (Marion Memorial Hospital) - Metastatic renal cell carcinoma, clear cell type  
Indiana (Ball Memorial Hospital) - Metastatic renal cell carcinoma  
Indiana, Fort Wayne - Metastatic clear cell carcinoma from kidney, thyroid  
Kansas (Coffeyville Regional Medical Center) - Metastatic renal cell carcinoma  
Maryland (National Naval Medical Center) - Metastatic renal cell carcinoma  
Massachusetts (Brigham & Women's Hospital) - Metastatic renal cell carcinoma  
Michigan, Grand Rapids - Clear cell carcinoma, consistent with metastatic carcinoma from kidney  
Michigan (St. Joseph Mercy Hospital) - Metastatic renal cell carcinoma  
Nebraska (Good Samaritan Hospital) - Metastatic renal cell carcinoma  
New Mexico (University of New Mexico) - Renal cell carcinoma, metastatic  
New York (Nassau University Medical Center Resident Study Group) - Metastatic renal cell carcinoma-clear cell type, thyroid  
New York (Westchester Medical Center) - Metastatic renal cell carcinoma  
Ohio, Columbus - Clear cell carcinoma consistent with metastatic renal cell carcinoma  
Ohio (Medical College of Ohio) - Favor anaplastic carcinoma of the thyroid vs. metastatic RCC (renal cell carcinoma)  
Pennsylvania (Allegheny General Hospital) - Metastatic conventional renal cell carcinoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Metastatic renal cell carcinoma, thyroid  
Pennsylvania (Magee Women's Hospital) - Metastatic renal cell carcinoma  
Texas, Lubbock - Metastatic renal cell carcinoma  
Texas, San Antonio - Metastatic renal cell carcinoma  
Texas (Scott & White Hospital) - Metastatic renal cell carcinoma  
Utah (St. Mark's Hospital) - Metastatic clear cell carcinoma consistent with renal primary  
Washington, DC - Metastatic renal cell carcinoma  
Canada (CUSE, Site Fleurimont) - Renal cell carcinoma, metastatic  
Canada (Foothills Hospital) - Metastatic renal cell carcinoma  
China (Sir Run Run Shaw Hospital) - Metastatic renal cell carcinoma  
Japan, Chiba - Consistent with metastatic renal cell carcinoma  
Japan (Hamamatsu University School of Medicine) - Parathyroid adenoma  
Puerto Rico (University of Puerto Rico) - Clear cell carcinoma, metastatic from renal primary  
Qatar (Hamad Medical Center) - Metastatic renal cell carcinoma  
Spain (POVISA) - Metastatic clear cell carcinoma

**Case 2 - Diagnosis:****Clear cell carcinoma, likely metastatic from renal primary, thyroid**

T-96000, M-8310/3

**Case 2 - References:**

Rikabi AC, Young AE, Wilson C. Metastatic Renal Clear Cell Carcinoma in The Thyroid Gland Diagnosed by Fine Needle Aspiration Cytology. *Cytopathology*. 1991; 2(1):47-49.  
 Rigaud C, Bogomoletz WV, Delisle MJ, et al. Metastatic Cancers of The Thyroid Gland. Diagnostic Difficulties. *Bull Cancer*. 1987; 74(2):117-127. French.  
 Watts NB. Carcinoma Metastatic to The Thyroid: Prevalence and Diagnosis by Fine-Needle Aspiration Cytology. *Am J Med Sci*. 1987 Jan; 293(1):13-17.  
 Nishiyama RH. Overview of Surgical Pathology of The Thyroid Gland. *World J Surg*. 2000 Aug; 24(8):898-906.  
 Tatal E, Tutuncu NB, Akcaer N, et al. Unusual Case of Metastatic Thyroid Nodule: Nonpalpable Breast Mass as Origin. *Endocr Pract*. 2001 Sep-Oct; 7(5):379-382

**Case No. 3, Accession No. 28705****November 2002**

Escondido - Papillary carcinoma  
Glendale (Glendale Pathology Association) - Papillary carcinoma of thyroid  
Loma Linda - Papillary carcinoma of thyroid  
Orange (UCI Medical Center Residents) - Papillary carcinoma, thyroid  
San Diego - Papillary carcinoma  
Arizona (Phoenix Memorial Hospital) - Papillary carcinoma  
Arkansas, Little Rock - Papillary carcinoma  
Colorado, Denver - Papillary carcinoma  
Florida (Winter Haven Hospital) - Papillary carcinoma  
Florida (Hospital Pathologists) - Papillary carcinoma of thyroid  
Georgia, Decatur - Papillary carcinoma of the thyroid  
Illinois (Marion Memorial Hospital) - Papillary carcinoma of thyroid  
Indiana (Ball Memorial Hospital) - Papillary carcinoma, tall cell variant  
Indiana, Fort Wayne - Papillary carcinoma, thyroid (R)  
Kansas (Coffeyville Regional Medical Center) - Papillary carcinoma, oncocytic?  
Maryland (National Naval Medical Center) - Papillary thyroid carcinoma  
Massachusetts (Brigham & Women's Hospital) - Papillary carcinoma  
Michigan, Grand Rapids - Papillary carcinoma of thyroid  
Michigan (St. Joseph Mercy Hospital) - Papillary carcinoma  
Nebraska (Good Samaritan Hospital) - Papillary carcinoma  
New Mexico (University of New Mexico) - Papillary carcinoma  
New York (Nassau University Medical Center Resident Study Group) - Papillary carcinoma, thyroid  
New York (Westchester Medical Center) - Papillary carcinoma of thyroid  
Ohio, Columbus - Papillary carcinoma  
Ohio (Medical College of Ohio) - Papillary carcinoma of the thyroid  
Pennsylvania (Allegheny General Hospital) - Papillary thyroid carcinoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Papillary carcinoma, thyroid  
Pennsylvania (Magee Women's Hospital) - Papillary carcinoma  
Texas, Lubbock - Papillary carcinoma, tall cell variant  
Texas, San Antonio - Papillary thyroid carcinoma  
Texas (Scott & White Hospital) - Papillary carcinoma  
Utah (St. Mark's Hospital) - Papillary carcinoma  
Washington, DC - Papillary carcinoma  
Canada (CUSE, Site Fleurimont) - Papillary carcinoma  
Canada (Foothills Hospital) - Papillary carcinoma  
China (Sir Run Run Shaw Hospital) - Thyroid papillary carcinoma  
Japan, Chiba - Papillary carcinoma of thyroid gland  
Japan (Hamamatsu University School of Medicine) - Papillary carcinoma  
Puerto Rico (University of Puerto Rico) - Papillary cell carcinoma  
Qatar (Hamad Medical Center) - Papillary carcinoma  
Spain (POVISA) - Tall cell papillary carcinoma

**Case 3 - Diagnosis:****Papillary carcinoma, thyroid**

T-96000, M-8050/3

**Case 3 - References:**

- Huang J, Walker R, Groome PG, et al. Risk of Thyroid Carcinoma in a Female Population after Radiotherapy for Breast Carcinoma. *Cancer*. 2001 Sep 15; 92(6):1411-1418.
- Gamboa-Dominguez A, Candanedo-Gonzalez F, Uribe-Uribe NO, et al. Tall Cell Variant of Papillary Thyroid Carcinoma. A Cytohistologic Correlation. *Acta Cytol*. 1997 May-Jun; 41(3):672-676.
- Lam AK, Montone KT, Nolan KA, et al. Ret Oncogene Activation in Papillary Thyroid Carcinoma: Prevalence and Implication on the Histological Parameters. *Hum Pathol*. 1998 Jun; 29(6):565-568
- Chan JK, Saw D. The Grooved Nucleus. A Useful Diagnostic Criterion of Papillary Carcinoma of The Thyroid. *Am J Surg Pathol*. 1986 Oct; 10(10):672-679.

**Case No. 4, Accession No. 29543****November 2002**

Escondido - Squamous cell carcinoma, primary  
Glendale (Glendale Pathology Association) - Squamous cell carcinoma  
Loma Linda - Sclerosing carcinoma (epidermoid) of thyroid  
Orange (UCI Medical Center Residents) - Sclerosing mucoepidermoid carcinoma with eosinophilia, thyroid  
San Diego - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Arizona (Phoenix Memorial Hospital) - Squamous cell carcinoma of thyroid  
Arkansas, Little Rock - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Colorado, Denver - Follicular carcinoma  
Florida (Winter Haven Hospital) - Fibrosing Hashimoto's thyroiditis  
Florida (Hospital Pathologists) - Adnexal skin (sebaceous?) tumor  
Georgia, Decatur - Sclerosing mucoepidermoid carcinoma with eosinophils  
Illinois (Marion Memorial Hospital) - Sclerosing mucoepidermoid carcinoma with eosinophils  
Indiana (Ball Memorial Hospital) - Mucoepidermoid carcinoma  
Indiana, Fort Wayne - Mucoepidermoid (adenosquamous) carcinoma, (R) thyroid with Hashimoto's thyroiditis  
Kansas (Coffeyville Regional Medical Center) - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Maryland (National Naval Medical Center) - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Massachusetts (Brigham & Women's Hospital) - Mucoepidermoid carcinoma  
Michigan, Grand Rapids - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Michigan (St. Joseph Mercy Hospital) - Mucoepidermoid carcinoma  
Nebraska (Good Samaritan Hospital) - Sclerosing mucoepidermoid carcinoma with eosinophils  
New Mexico (University of New Mexico) - SETTLE  
New York (Nassau University Medical Center Resident Study Group) - Sclerosing mucoepidermoid carcinoma with eosinophilia, thyroid  
New York (Westchester Medical Center) - Mucoepidermoid carcinoma  
Ohio, Columbus - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Ohio (Medical College of Ohio) - Squamous cell carcinoma  
Pennsylvania (Allegheny General Hospital) - Mucoepidermoid carcinoma of thyroid  
Pennsylvania (Conemaugh Memorial Medical Center) - Medullary carcinoma, thyroid  
Pennsylvania (Magee Women's Hospital) - Medullary carcinoma  
Texas, Lubbock - Follicular carcinoma  
Texas, San Antonio - MET squamous, lung primary  
Texas (Scott & White Hospital) - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Utah (St. Mark's Hospital) - Poorly differentiated carcinoma  
Washington, DC - Mucoepidermoid carcinoma  
Canada (CUSE, Site Fleurimont) - Anaplastic carcinoma, squamoid variant  
Canada (Foothills Hospital) - Sclerosing mucoepidermoid carcinoma with eosinophilia  
China (Sir Run Run Shaw Hospital) - Squamous cell carcinoma  
Japan, Chiba - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Japan (Hamamatsu University School of Medicine) - Sclerosing mucoepidermoid carcinoma with eosinophilia  
Puerto Rico (University of Puerto Rico) - Mucoepidermoid carcinoma  
Qatar (Hamad Medical Center) - Mucoepidermoid carcinoma  
Spain (POVISA) - Mucoepidermoid carcinoma

**Case 4 - Diagnosis:****Sclerosing mucoepidermoid carcinoma with eosinophilia, thyroid**

T-96000, M-8430/3

**Consultation:** Jorge Albores-Saavedra, M.D. (Southwestern Medical Center, Dallas, Texas) "Sclerosing mucoepidermoid carcinoma with eosinophilia."

**Case 4 - References:**

- Geisinger KR, Steffee CH, McGee RS, et al. The Cytomorphologic Features of Sclerosing Mucoepidermoid Carcinoma of The Thyroid Gland with Eosinophilia. *Am J Clin Pathol*. 1998 Mar; 109(3):294-301.
- Solomon AC, Baloch ZW, Salhany KE, et al. Thyroid Sclerosing Mucoepidermoid Carcinoma with Eosinophilia: Mimic of Hodgkin Disease in Nodal Metastases. *Arch Pathol Lab Med*. 2000 Mar; 124(3):446-449.
- Sim SJ, Ro JY, Ordenez NG, et al. Sclerosing Mucoepidermoid Carcinoma with Eosinophilia of the Thyroid: Report of Two Patients, One with Distant Metastasis, and Review of the Literature. *Hum Pathol*. 1997 Sep; 28(9):1091-1096.
- Baloch ZW, Solomon AC, LiVolsi VA. Primary Mucoepidermoid Carcinoma and Sclerosing Mucoepidermoid Carcinoma with Eosinophilia of the Thyroid Gland: A Report of Nine Cases. *Mod Pathol*. 2000 Jul; 13(7):802-807.
- Vazquez Ramirez F, Otal Salaverri C, Argueta Manzano O, et al. Fine Needle Aspiration Cytology of High Grade Mucoepidermoid Carcinoma of the Thyroid. A Case Report. *Acta Cytol*. 2000 Mar-Apr; 44(2):259-264

Escondido - Parathyroid adenoma  
Glendale (Glendale Pathology Association) - Parathyroid adenoma  
Loma Linda - Papillary carcinoma, parathyroid  
Orange (UCI Medical Center Residents) - Parathyroid adenoma  
San Diego - Parathyroid adenoma  
Arizona (Phoenix Memorial Hospital) - Parathyroid adenoma, chief cell type  
Arkansas, Little Rock - Parathyroid adenoma  
Colorado, Denver - Parathyroid adenoma  
Florida (Winter Haven Hospital) - Atypical parathyroid adenoma  
Florida (Hospital Pathologists) - Parathyroid adenoma  
Georgia, Decatur - Parathyroid adenoma  
Illinois (Marion Memorial Hospital) - Parathyroid adenoma  
Indiana (Ball Memorial Hospital) - Parathyroid carcinoma  
Indiana, Fort Wayne - Parathyroid adenoma (chief cell), parathyroid gland  
Kansas (Coffeyville Regional Medical Center) - Parathyroid adenoma  
Maryland (National Naval Medical Center) - Parathyroid adenoma  
Massachusetts (Brigham & Women's Hospital) - Parathyroid adenoma  
Michigan, Grand Rapids - Parathyroid adenoma  
Michigan (St. Joseph Mercy Hospital) - Adenoma  
Nebraska (Good Samaritan Hospital) - Parathyroid adenoma  
New Mexico (University of New Mexico) - Parathyroid adenoma  
New York (Nassau University Medical Center Resident Study Group) - Adenoma, parathyroid  
New York (Westchester Medical Center) - Parathyroid adenoma vs. carcinoma  
Ohio, Columbus - Parathyroid adenoma  
Ohio (Medical College of Ohio) - Parathyroid carcinoma  
Pennsylvania (Allegheny General Hospital) - Parathyroid adenoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Parathyroid adenoma, parathyroid  
Pennsylvania (Magee Women's Hospital) - Parathyroid adenoma  
Texas, Lubbock - Parathyroid adenoma  
Texas, San Antonio - Medullary  
Texas (Scott & White Hospital) - Parathyroid adenoma  
Utah (St. Mark's Hospital) - Parathyroid adenoma  
Washington, DC - Parathyroid adenoma  
Canada (CUSE, Site Fleurimont) - Parathyroid adenoma  
Canada (Foothills Hospital) - Parathyroid adenoma  
China (Sir Run Run Shaw Hospital) - Parathyroid adenoma  
Japan, Chiba - Parathyroid carcinoma  
Japan (Hamamatsu University School of Medicine) - Parathyroid adenoma  
Puerto Rico (University of Puerto Rico) - Parathyroid adenoma  
Qatar (Hamad Medical Center) - Parathyroid adenoma  
Spain (POVISA) - Chief cell adenoma

**Case 5 - Diagnosis:****Parathyroid neoplasm, favor carcinoma**

Director's note: A review of the chart showed a pre-operative serum calcium of 18.8 mg/dl. (drc)  
 T-97000, M-8010/3

**Case 5 - References:**

- Yamamoto T, Matsumura A. Comment on "Clinical Review 122: Parathyroid Carcinoma". *J Clin Endocrinol Metab.* 2001 Oct;86(10):5091.  
 Mozes G, Curlee KJ, Rowland CM, et al. The Predictive Value of Laboratory Findings in Patients with Primary Hyperparathyroidism. *J Am Coll Surg.* 2002 Feb; 194(2):126-130.  
 Kameyama K, Takami H, Umemura S, et al. PCNA and Ki-67 as Prognostic Markers in Human Parathyroid Carcinomas. *Ann Surg Oncol.* 2000 May; 7(4):301-304.  
 Casez J, Pfammatter R, Nguyen Q, et al. Diagnostic Approach to Hypercalcemia: Relevance of Parathyroid Hormone and Parathyroid Hormone-Related Protein Measurements. *Eur J Intern Med.* 2001 Jul; 12(4):344-349.  
 Cougard P, Goudet P, Bilosi M, et al. Videoendoscopic Approach for Parathyroid Adenomas: Results of a Prospective Study of 100 Patients. *Ann Chir.* 2001 May; 126(4):314-31. French.

**Case No. 6, Accession No. 29424****November 2002**

Escondido - Serous microcystic adenoma  
Glendale (Glendale Pathology Association) - Serous cystadenoma of pancreas  
Loma Linda - Cystadenoma of pancreas  
Orange (UCI Medical Center Residents) - Serous microcystic adenoma, pancreas  
San Diego - Serous microcystic adenoma  
Arizona (Phoenix Memorial Hospital) - Serous cystadenoma, pancreas  
Arkansas, Little Rock - Microcystic adenoma  
Colorado, Denver - Cystadenoma  
Florida (Winter Haven Hospital) - Cystadenoma  
Florida (Hospital Pathologists) - Microcystic cystadenoma  
Georgia, Decatur - Serous (microcystic) adenoma  
Illinois (Marion Memorial Hospital) - Serous microcystic adenoma  
Indiana (Ball Memorial Hospital) - Microcystic adenoma  
Indiana, Fort Wayne - Serous microcystic cystadenoma, pancreas  
Kansas (Coffeyville Regional Medical Center) - Serous cystadenocarcinoma  
Maryland (National Naval Medical Center) - Serous microcystic adenoma  
Massachusetts (Brigham & Women's Hospital) - Serous cystadenoma  
Michigan, Grand Rapids - Serous neoplasm of pancreas  
Michigan (St. Joseph Mercy Hospital) - Microcystic adenoma  
Nebraska (Good Samaritan Hospital) - Serous microcystic adenoma  
New Mexico (University of New Mexico) - Serous microcystic adenoma  
New York (Nassau University Medical Center Resident Study Group) - Serous cystadenoma, pancreas  
New York (Westchester Medical Center) - Microcystic cystadenoma of pancreas  
Ohio, Columbus - Serous microcystic adenoma  
Ohio (Medical College of Ohio) - Serous microcystic adenoma  
Pennsylvania (Allegheny Medical Center) - Microcystic adenoma of pancreas  
Pennsylvania (Conemaugh Memorial Medical Center) - Serous cyst adenoma, pancreas  
Pennsylvania (Magee Women's Hospital) - Serous microcystic tumor  
Texas, Lubbock - Microcystic adenoma  
Texas, San Antonio - Serous cystadenoma  
Texas (Scott & White Hospital) - Serous microcystic adenoma  
Utah (St. Mark's Hospital) - Serous microcystic adenoma  
Washington, DC - Microcystic cystadenoma  
Canada (CUSE, Site Fleurimont) - Solid pseudo papillary tumor  
Canada (Foothills Hospital) - Serous microcystic adenoma  
China (Sir Run Run Shaw Hospital) - Serous microcystic adenoma  
Japan, Chiba - Serous microcystic adenoma of pancreas  
Japan (Hamamatsu University School of Medicine) - Serous microcystic adenoma  
Puerto Rico (University of Puerto Rico) - Serous cystadenoma  
Qatar (Hamad Medical Center) - Microcystic adenoma  
Spain (POVISA) - Serous microcystic adenoma

**Case 6 - Diagnosis:****Serous microcystic cystadenoma, pancreas**

T-59000, M-8441/0

**Case 6 - References:**

- Alpert LC, Truong LD, Bossart MI, et al. Microcystic Adenoma (Serous Cystadenoma) of The Pancreas. A Study of 14 Cases with Immunohistochemical and Electron-Microscopic Correlation. *Am J Surg Pathol*. 1988 Apr; 12(4):251-263.
- Compagno J, Oertel JE. Microcystic Adenomas of the Pancreas (Glycogen-Rich Cystadenomas): A Clinicopathologic Study of 34 cases. *Am J Clin Pathol*. 1978 Mar; 69(3):289-298.
- Nyongo A, Huntrakoon M. Microcystic Adenoma of the Pancreas with Myoepithelial Cells. A Hitherto Undescribed Morphologic Feature. *Am J Clin Pathol*. 1985 Jul; 84(1):114-120.
- Young NA, Villani MA, Khoury P, et al. Differential Diagnosis of Cystic Neoplasms of the Pancreas by Fine-Needle Aspiration. *Arch Pathol Lab Med*. 1991 Jun; 115(6):571-577.



Escondido - Pancreatic endocrine tumor  
Glendale (Glendale Pathology Association) - Pancreatic endocrine tumor  
Loma Linda - Endocrine (carcinoid) tumor of pancreas  
Orange (UCI Medical Center Residents) - Islet cell tumor, pancreas  
San Diego - Pancreatic neuroendocrine neoplasm  
Arizona (Phoenix Memorial Hospital) - Acinar cell carcinoma  
Arkansas, Little Rock - Pancreatic neuroendocrine cell tumor  
Colorado, Denver - Acinar cell carcinoma  
Florida (Winter Haven Hospital) - Pancreatic endocrine tumor  
Florida (Hospital Pathologists) - Islet cell tumor  
Georgia, Decatur - Pancreatic endocrine tumor  
Illinois (Marion Memorial Hospital) - Pancreatic endocrine tumor (islet cell tumor), benign  
Indiana (Ball Memorial Hospital) - Neuroendocrine tumor  
Indiana, Fort Wayne - Islet cell tumor (neuroendocrine neoplasm), pancreas  
Kansas (Coffeyville Regional Medical Center) - Endocrine tumor (islet cell/carcinoid)  
Maryland (National Naval Medical Center) - Pancreatic endocrine neoplasm  
Massachusetts (Brigham & Women's Hospital) - Pancreatic endocrine neoplasm  
Michigan, Grand Rapids - Pancreatic endocrine neoplasm  
Michigan (St. Joseph Mercy Hospital) - Pancreatic endocrine tumor  
Nebraska (Good Samaritan Hospital) - Neuroendocrine tumor  
New Mexico (University of New Mexico) - Pancreatic endocrine tumor  
New York (Nassau University Medical Center Resident Study Group) - Malignant endocrine tumor, pancreas  
New York (Westchester Medical Center) - Endocrine (islet cell) tumor of pancreas  
Ohio, Columbus - Islet cell tumor  
Ohio (Medical College of Ohio) - Islet cell tumor  
Pennsylvania (Allegheny Medical Center) - Pancreatic endocrine well differentiated tumor uncertain malignant potential – angioinvasion.  
Pennsylvania (Conemaugh Memorial Medical Center) - Pancreatic endocrine neoplasm/favor malignant, pancreas  
Pennsylvania (Magee Women's Hospital) - Neuroendocrine carcinoma  
Texas, Lubbock - Islet cell tumor  
Texas, San Antonio - Pancreatic endocrine neoplasm  
Texas (Scott & White Hospital) - Pancreatic neuroendocrine tumor  
Utah (St. Mark's Hospital) - Pancreatic endocrine tumor  
Washington, DC - Pancreatic endocrine tumor  
Canada (CUSE, Site Fleurimont) - Pancreatic endocrine tumor  
Canada (Foothills Hospital) - Pancreatic endocrine neoplasm  
China (Sir Run Run Shaw Hospital) - Islet cell tumor  
Japan, Chiba - Endocrine tumor of the pancreas  
Japan (Hamamatsu University School of Medicine) - Well differentiated endocrine carcinoma  
Puerto Rico (University of Puerto Rico) - Endocrine tumor  
Qatar (Hamad Medical Center) - Neuroendocrine tumour (adenoma)  
Spain (POVISA) - Endocrine cell tumor

**Case 7 - Diagnosis:****Pancreatic endocrine tumor, pancreas**

T-59000, M-8000/1

**Case 7 - References:**

- Guo SS, Wu X, Shimoide AT, et al. Anomalous Overexpression of p27(Kip1) in Sporadic Pancreatic Endocrine Tumors. *J Surg Res.* 2001 Apr; 96(2):284-288.
- Perren A, Komminoth P, Saremaslani P, et al. Mutation and Expression Analyses Reveal Differential Subcellular Compartmentalization of PTEN in Endocrine Pancreatic Tumors Compared to Normal Islet Cells. *Am J Pathol.* 2000 Oct; 157(4):1097-1103.
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**Case No. 8, Accession No. 28955****November 2002**

Escondido - Mucinous cystic tumor, adenoma  
Glendale (Glendale Pathology Association) - Mucinous cystic tumor of pancreas  
Loma Linda - Mucinous cystadenoma of pancreas  
Orange (UCI Medical Center Residents) - Mucinous cystadenoma, pancreas  
San Diego - Mucinous cystic neoplasm  
Arizona (Phoenix Memorial Hospital) - Mucinous cystadenoma  
Arkansas, Little Rock - Mucinous cystadenoma  
Colorado, Denver - Neuroendocrine tumor  
Florida (Winter Haven Hospital) - Mucinous cystadenoma  
Florida (Hospital Pathologists) - Mucinous cystadenoma  
Georgia, Decatur - Mucinous cystic neoplasm of borderline malignancy  
Illinois (Marion Memorial Hospital) - Mucinous cystadenoma  
Indiana (Ball Memorial Hospital) - Mucinous cystic adenoma  
Indiana, Fort Wayne - Mucinous cystic neoplasm, pancreas  
Kansas (Coffeyville Regional Medical Center) - Mucinous cystic tumor  
Maryland (National Naval Medical Center) - Mucinous pancreatic cystic tumor  
Massachusetts (Brigham & Women's Hospital) - Mucinous cystadenoma  
Michigan, Grand Rapids - Mucinous cystic tumor, pancreas  
Michigan (St. Joseph Mercy Hospital) - Mucinous cystadenoma  
Nebraska (Good Samaritan Hospital) - Mucinous cystadenoma  
New Mexico (University of New Mexico) - Mucinous cystic tumor, adenoma  
New York (Nassau University Medical Center Resident Study Group) - Mucinous cystadenoma, pancreas  
New York (Westchester Medical Center) - Cystic mucinous tumor of pancreas  
Ohio, Columbus - Mucinous cystic neoplasm  
Ohio (Medical College of Ohio) - Mucinous cystic tumor (cystadenoma)  
Pennsylvania (Allegheny Medical Center) - Mucinous (colloid) carcinoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Mucinous cyst neoplasm, pancreas  
Pennsylvania (Magee Women's Hospital) - Mucinous cystadenoma  
Texas, Lubbock - Mucinous neoplasm  
Texas, San Antonio - Chronic pancreatitis with non-neoplastic cyst formation  
Texas (Scott & White Hospital) - Mucinous cystic tumor  
Utah (St. Mark's Hospital) - Mucinous cystic tumor borderline  
Washington, DC - Mucinous cystadenoma  
Canada (CUSE, Site Fleurimont) - Mucinous cystadenoma  
Canada (Foothills Hospital) - Mucinous cystic neoplasm  
China (Sir Run Run Shaw) - Mucinous cystadenoma  
Japan, Chiba - Mucinous cystic tumor of pancreas (mucinous cystadenoma)  
Japan (Hamamatsu University School of Medicine) - Mucinous cystadenoma  
Puerto Rico (University of Puerto Rico) - Mucinous cystic adenoma  
Qatar (Hamad Medical Center) - Mucinous cystadenoma  
Spain (POVISA) - Cystic mucinous tumor

**Case 8 - Diagnosis:****Mucinous cystic tumor (cystadenoma), pancreas**

T-59000, M-8470/0

**Case 8 - References:**

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 Longnecker DS. Observations on The Etiology and Pathogenesis of Intraductal Papillary-Mucinous Neoplasms of The Pancreas. *Hepato-gastroenterology*. 1998 Nov-Dec; 45(24):1973-1980.  
 Helpap B, Vogel J. Immunohistochemical Studies on Cystic Pancreatic Neoplasms. *Pathol Res Pract*. 1988 Dec; 184(1):39-45.  
 Mukawa K, Kawa S, Aoki Y, et al. Reduced Expression of p53 and Cyclin A in Intraductal Mucin-Hypersecreting Neoplasm of the Pancreas Compared with Usual Pancreatic Ductal Adenocarcinoma. *Am J Gastroenterol*. 1999 Aug; 94(8):2263-2267.

**Case No. 9, Accession No. 29472****November 2002**

Escondido - Adrenal cortical carcinoma  
Glendale (Glendale Pathology Association) - Pheochromocytoma  
Loma Linda - Pheochromocytoma – adrenal  
Orange (UCI Medical Center Residents) - Pheochromocytoma, adrenal gland  
San Diego - Pheochromocytoma  
Arizona (Phoenix Memorial Hospital) - Pheochromocytoma  
Arkansas, Little Rock - Pheochromocytoma  
Colorado, Denver - Pheochromocytoma  
Florida (Winter Haven Hospital) - Pheochromocytoma  
Florida (Hospital Pathologists) - Adrenal gland carcinoma  
Georgia, Decatur - Pheochromocytoma  
Illinois (Marion Memorial Hospital) - Pheochromocytoma  
Indiana (Ball Memorial Hospital) - Pheochromocytoma  
Indiana, Fort Wayne - Pheochromocytoma, (R) adrenal  
Kansas (Coffeyville Regional Medical Center) - Pheochromocytoma  
Maryland (National Naval Medical Center) - Pheochromocytoma  
Massachusetts (Brigham & Women's Hospital) - Pheochromocytoma  
Michigan, Grand Rapids - Pheochromocytoma  
Michigan (St. Joseph Mercy Hospital) - Pheochromocytoma  
Nebraska (Good Samaritan Hospital) - Pheochromocytoma  
New Mexico (University of New Mexico) - Pheochromocytoma  
New York (Nassau University Medical Center Resident Study Group) - Pheochromocytoma, adrenal gland  
New York (Westchester Medical Center) - Pheochromocytoma  
Ohio, Columbus - Pheochromocytoma  
Ohio (Medical College of Ohio) - Pheochromocytoma  
Pennsylvania (Allegheny General Hospital) - Pheochromocytoma  
Pennsylvania (Conemaugh Memorial Medical Center) - Pheochromocytoma, adrenal gland  
Pennsylvania (Magee Women's Hospital) - Pheochromocytoma  
Texas, Lubbock - Pheochromocytoma  
Texas, San Antonio - Pheochromocytoma  
Texas (Scott & White Hospital) - Pheochromocytoma  
Utah (St. Mark's Hospital) - Pheochromocytoma  
Washington, DC - Pheochromocytoma  
Canada (CUSE, Site Fleurimont) - Pheochromocytoma  
Canada (Foothills Hospital) - Pheochromocytoma  
China (Sir Run Run Shaw Hospital) - Pheochromocytoma  
Japan, Chiba - Pheochromocytoma  
Japan (Hamamatsu University School of Medicine) - Pheochromocytoma  
Puerto Rico (University of Puerto Rico) - Pheochromocytoma  
Qatar (Hamad Medical Center) - Pheochromocytoma  
Spain (POVISA) - Pheochromocytoma

**Case 9 - Diagnosis:****Pheochromocytoma, adrenal gland**

T-93000, M-8700/0

**Case 9 - References:**

- Sutton MG, Sheps SG, Lie JT. Prevalence of Clinically Unsuspected Pheochromocytoma. Review of a 50-year Autopsy Series. *Mayo Clin Proc.* 1981 Jun; 56(6):354-360.
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Escondido - Adrenal cortical adenoma  
Glendale (Glendale Pathology Association) - Adrenal cortical adenoma  
Loma Linda - Adrenal cortical adenoma  
Orange (UCI Medical Center Residents) - Adrenal cortical adenoma  
San Diego - Adrenal cortical neoplasm, favor adenoma  
Arizona (Phoenix Memorial Hospital) - Adrenal cortical adenoma, functioning  
Arkansas, Little Rock - Adrenal cortical adenoma  
Colorado, Denver - Adrenocortical adenoma  
Florida (Winter Haven Hospital) - Adrenal adenoma  
Florida (Hospital Pathologists) - ? MET (malignant endocrine tumor) ?RCC (renal cell carcinoma)  
Georgia, Decatur - Adrenocortical adenoma  
Illinois (Marion Memorial Hospital) - Adrenal cortical adenoma  
Indiana (Ball Memorial Hospital) - Adrenal cortical adenoma  
Indiana, Fort Wayne - Adrenal cortical adenoma, (R) adrenal  
Kansas (Coffeyville Regional Medical Center) - Adrenal cortical adenoma  
Maryland (National Naval Medical Center) - Adrenal cortical adenoma  
Massachusetts (Brigham & Women's Hospital) - Adrenocortical adenoma  
Michigan, Grand Rapids - Cortical adenoma  
Michigan (St. Joseph Mercy Hospital) - Cortical adenoma  
Nebraska (Good Samaritan Hospital) - Adrenal cortical adenoma  
New Mexico (University of New Mexico) - Adrenal cortical adenoma  
New York (Nassau University Medical Center Resident Study Group) - Cortical adenoma, adrenal gland  
New York (Westchester Medical Center) - Adrenal cortical adenoma  
Ohio, Columbus - Adrenal cortical adenoma  
Ohio (Medical College of Ohio) - Adrenal cortical adenoma  
Pennsylvania (Allegheny General Hospital) - Adrenal cortical neoplasm  
Pennsylvania (Conemaugh Memorial Medical Center) - Adrenal cortical adenoma, adrenal gland  
Pennsylvania (Magee Women's Hospital) - Adrenal cortical neoplasm rule out carcinoma  
Texas, Lubbock - Cortical adenoma  
Texas, San Antonio - Adrenocortical neoplasm, favor adenoma  
Texas (Scott & White Hospital) - Adrenal cortical adenoma  
Utah (St. Mark's Hospital) - Adrenal cortical adenoma  
Washington, DC - Adrenal cortex adenoma  
Canada (CUSE, Site Fleurimont) - Adrenal cortical adenoma  
Canada (Foothills Hospital) - Adrenal adenoma  
China (Sir Run Run Shaw Hospital) - Adrenocortical adenoma  
Japan, Chiba - Adrenal cortical adenoma  
Japan (Hamamatsu University School of Medicine) - Cortical adenoma  
Puerto Rico (University of Puerto Rico) - Adrenal cortical adenoma  
Qatar (Hamad Medical Center) - Adrenal cortical adenoma  
Spain (POVISA) - Adrenal cortical adenoma

**Case 10 - Diagnosis:**

**Adrenocortical neoplasm, favor adenoma**

T-93000, M-81400

**Case 10 - References:**

- Favia G, Lumachi F, Basso S, et al. Management of Incidentally Discovered Adrenal Masses and Risk of Malignancy. *Surgery*. 2000 Dec; 128(6):918-924.
- Diaz-Cano SJ, de Miguel M, Blanes A, et al. Contribution of the Microvessel Network to the Clonal and Kinetic Profiles of Adrenal Cortical Proliferative Lesions. *Hum Pathol*. 2001 Nov; 32(11):1232-1239.
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