

**California Tumor Tissue Registry's
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"Thyroid Pathology - part 1"
(Thyroid Pathology part 2 will be in a later study set)

Case 1

62 y/o man with a cystic mass in the left (near midline) portion of the neck. No dysphagia or pain.

Dx: Thyroglossal cyst

Percutaneous ethanol injection of thyroglossal duct cysts. Baskin HJ. Endocr Pract 2006 Jul-Aug;12(4): p355-7.

Psammomatous calcification in association with a benign thyroglossal duct cyst. Ayala C; Healy GB; Robson CD; Vargas SO. Arch Otolaryngol Head Neck Surg 2003 Feb;129(2): p241-3.

Tall cell variant of papillary carcinoma arising from a thyroglossal cyst: report of a case with diagnosis by fine needle aspiration cytology. Koybasioglu F; Simsek GG; Onal BU. Acta Cytol 2006 Mar-Apr;50(2): p221-4.

Thyroglossal duct cyst: a cytopathologic study of 26 cases. Shahin A; Burroughs FH; Kirby JP; Ali SZ. Diagn Cytopathol 2005 Dec;33(6): p365-9.

Recurrent thyroglossal duct cysts: a 23-year experience and a new method for management. Perkins JA; Inglis AF; Sie KC; Manning SC. Ann Otol Rhinol Laryngol 2006 Nov;115(11): p850-6.

Case 2

57 y/o female with a diffusely enlarged thyroid gland.

Dx: Hashimotos thyroiditis

A diagnostic pitfall: nodular tumor-like squamous metaplasia with Hashimoto's thyroiditis mimicking a sclerosing mucoepidermoid carcinoma with eosinophilia. Musso-Lassalle S; Butori C; Bailleux S; Santini J; Franc B; Hofman P. Pathol Res Pract 2006;202(5): p379-83.

Malignant T-cell lymphoma of the thyroid gland associated with Hashimoto's thyroiditis. Motoi N; Ozawa Y. Pathol Int 2005 Jul;55(7): p425-30.

Successful treatment for recurrent painful Hashimoto's thyroiditis by total thyroidectomy. Ohye H; Fukata S; Kubota S; Sasaki I; Takamura Y; Matsuzuka F; Amino N; Kuma K; Miyauchi A; Kakudo K. Thyroid 2005 Apr;15(4): p340-5.

Plasma cell granuloma of the thyroid and Hashimoto thyroiditis. Ferrer-Garcia JC; Costa-Talens P; Merino-Torres JF; Prieto-Rodriguez M; Vera-Sempere JF; Pinon-Selles F. South Med J 2004 Jun;97(6): p598-600.

Painful Hashimoto's thyroiditis as an indication for thyroidectomy: clinical characteristics and outcome in seven patients. Kon YC; De Groot LJ. J Clin Endocrinol Metab 2003 Jun;88(6): p2667-72.

Hashimoto's thyroiditis shares features with early papillary thyroid carcinoma. Arif S; Blanes A; Diaz-Cano SJ. Histopathology 2002 Oct;41(4): p357-62.

Case 3

40 y/o woman with an expanding mass in the neck.

Dx: Granulomatous thyroiditis (de Quervains)

Subacute thyroiditis: fine-needle aspiration cytology of 14 cases presenting with thyroid nodules. Shabb NS; Salti I. Diagn Cytopathol 2006 Jan;34(1): p18-23.

Chronic granulomatous lesions after thyroidectomy: imaging findings. Langer JE; Luster E; Horii SC; Mandel SJ; Baloch ZW; Coleman BG. AJR Am J Roentgenol 2005 Nov;185(5): p1350-4.

Plasma cell granuloma of the thyroid and Hashimoto thyroiditis. Ferrer-Garcia JC; Costa-Talens P; Merino-Torres JF; Prieto-Rodriguez M; Vera-Sempere JF; Pinon-Selles F. South Med J 2004 Jun;97(6): p598-600.

Is granulomatous thyroiditis a complication of breast implants? Prebtani AP; Asa SL; Ezzat S. Endocr Pathol 2002 Fall;13(3): p239-44.

Clinical features and outcome of subacute thyroiditis in an incidence cohort: Olmsted County, Minnesota, study. Fatourechi V; Aniszewski JP; Fatourechi GZ; Atkinson EJ; Jacobsen SJ. J Clin Endocrinol Metab 2003 May;88(5): p2100-5.

Case 4

Thyroid tissue from a 44 y/o woman.

Dx:Reidels thyroiditis/struma

Riedel's thyroiditis and fibrous variant of Hashimoto's thyroiditis: a clinicopathological and immunohistochemical study. Papi G; Corrado S; Carapezzi C; De Gaetani C; Carani C. J Endocrinol Invest 2003 May;26(5): p444-9.

Reidel's thyroiditis and Tolosa-Hunt syndrome, a rare association. Khan MA; Hashmi SM; Prinsley PR; Premachandra DJ. J Laryngol Otol 2004 Feb;118(2): p159-61.

Tamoxifen therapy in steroid resistant Reidel's thyroiditis. De M; Jaap A; Dempster J. Scott Med J 2001 Apr;46(2): p56-7.

Fine-needle aspiration of the thyroid. Poller DN; Ibrahim AK; Cummings MH; Mikel JJ; Boote D; Perry M. Cancer 2000 Aug 25;90(4): p239-44.

Case 5

23 y/o male with a hx of palpitations, irritability, headaches, tremors, ill fitting contact lenses, frequent stools, and a six month hx of heat intolerance, 20 lb wt loss, epistaxis, dizziness and "bug" eyes presented with a BP of 140/60. He displayed exophthalmos, fine motor tremors, brisk deep tendon reflexes and a possible mass in the thyroid. A thyroid scan showed diffuse uptake. The gland weighed 41 grams and had a homogeneous beefy red bulging surface.

Dx: Diffuse hyperplasia (Graves Disease)

Rationale of treatment in Graves ophthalmopathy. Clauser L; Galie M; Sarti E; Dallera V. Plast Reconstr Surg 2001 Dec;108(7): p1880-94.

Graves' disease in patients with 22q11.2 deletion. Kawame H; Adachi M; Tachibana K; Kurosawa K; Ito F; Gleason MM; Weinzier S; Levitt-Katz L; Sullivan K; McDonald-McGinn DM. J Pediatr 2001 Dec;139(6): p892-5.

Dermatomyositis and Graves' disease. Selva-O'Callaghan A; Mijares-Boeckh-Behrens T; Solans-Laqué R; Molins-Vara T; Olive G; Vilardell-Tarres M. Clin Exp Rheumatol 2001 Sep-Oct;19(5): p595-6

Graves' disease. McKenna TJ. Lancet 2001 Jun 2;357(9270): p1793-6.

Extrathyroidal manifestations of Graves' disease: the thyrotropin receptor is expressed in extraocular, but not cardiac, muscle tissues. Busuttil BE; Frauman AG. J Clin Endocrinol Metab 2001 May;86(5): p2315-9.

The efficacy of thyroidectomy for Graves' disease: A meta-analysis. Palit TK; Miller CC; Miltenburg DM. J Surg Res 2000 May 15;90(2): p161-5.

Thyroid carcinoma and Graves' disease. Cobin RH. Endocr Pract 2000 May-Jun;6(3): p264-7.

Case 6

25 y/o woman with diffuse enlargement of the thyroid gland. She had been treated with radioactive iodine several months earlier.

Dx: Treated diffuse hyperplasia (Graves Disease)

High prevalence of antineutrophil cytoplasmic antibody positivity in childhood onset Graves' disease treated with propylthiouracil. Sato H; Hattori M; Fujieda M; Sugihara S; Inomata H; Hoshi M; Miyamoto S. J Clin Endocrinol Metab 2000 Nov;85(11): p4270-3.

Management of Graves' disease in Australia. Walsh JP. Aust N Z J Med 2000 Oct;30(5): p559-66.

Reoperation as treatment of relapse after subtotal thyroidectomy in Graves' disease. Hermann M; Roka R; Richter B; Koriska K; Gobl S; Freissmuth M. Surgery 1999 May;125(5): p522-8.

Age and gender predict the outcome of treatment for Graves' hyperthyroidism. Allahabadia A; Daykin J; Holder RL; Sheppard MC; Gough SC; Franklyn JA. J Clin Endocrinol Metab 2000 Mar;85(3): p1038-42.

Clinical review 99: The management of Graves' disease in children, with special emphasis on radioiodine treatment. Rivkees SA; Sklar C; Freemark M. J Clin Endocrinol Metab 1998 Nov;83(11): p3767-76.

Case 7

59 y/o woman with a mass in the left lobe of the thyroid. It was encapsulated, 3.5 cm and homogeneous light brown.

Dx: Thyroid adenoma - microfollicular Hurthle cell type

Proliferative activity of Hurthle cell thyroid tumours. Cor A. Oncology 1999 Jul;57(1): p17-22.

Papillary Hurthle cell carcinoma (Warthin-like tumor) of the thyroid. Report of a case with fine needle aspiration findings. Vasei M; Kumar PV; Malekhoseini SA; Kadivar M. Acta Cytol 1998 Nov-Dec;42(6): p1437-40.

An immunohistochemical study of progesterone receptor in thyroidal Hurthle cells tumors. Zaccheroni V; Vacirca A; Lucci E; Vescini F; D'Errico A; Gabusi E; Grigioni W; Lodi A; Cunsolo A. J Exp Clin Cancer Res 1998 Sep;17(3): p291-8.

Molecular basis off hurthle cell papillary thyroid carcinoma. Cheung CC; Ezzat S; Ramyar L; Freeman JL; Asa SL. J Clin Endocrinol Metab 2000 Feb;85(2): p878-82.

Hurthle cell neoplasms of the thyroid: are there factors predictive of malignancy? Chen H; Nicol TL; Zeiger MA; Dooley WC; Ladenson PW; Cooper DS; Ringel M; Parkerson S; Allo M; Udelsman R. Ann Surg 1998 Apr;227(4): p542-6.

Hurthle cell tumor of the thyroid: analysis of 188 cases. Sugino K; Ito K; Mimura T; Kameyama K; Iwasaki H; Ito K. World J Surg 2001 Sep;25(9): p1160-3.

Case 8

75 y/o woman with a mass in the mediastinum. She had had previous neck surgeries but couldn't remember what they were about.

Dx: Nodular colloid goiter in mediastinum

Spread of goiters outside the thyroid bed: a review of 190 cases and an analysis of the incidence of the various extensions. Chin SC; Rice H; Som PM. Arch Otolaryngol Head Neck Surg 2003 Nov;129(11): p1198-202.

Visual vignette. Mediastinal mass due to substernal goiter. Hussein WI. Endocr Pract 2002 May-Jun;8(3): p244.

Robotic resection of an ectopic goiter in the mediastinum. Bodner J; Fish J; Lottersberger AC; Wetscher G; Schmid T. Surg Laparosc Endosc Percutan Tech 2005 Aug;15(4): p249-51.

Thymic hyperplasia presenting as anterior mediastinal mass in 2 patients with Graves disease. Budavari AI; Whitaker MD; Helmers RA. Mayo Clin Proc 2002 May;77(5): p495-9.

Ectopic thyroid. Gamblin TC; Jennings GR; Christie DB; Thompson WM; Dalton ML. Ann Thorac Surg 2003 Jun;75(6): p1952-3

Case 9

35 y/o male with weakness and wt loss for 1 year. Found to have a 3 cm mass in the right side of the neck. He was also hoarse.

T3 and T4 uptake were normal. Serum Ca was normal.

Case dx'd by AFIP.

Dx: Medullary thyroid carcinoma

Medullary thyroid carcinoma: management of lymph node metastases. Quayle FJ; Moley JF. Cur Treat Options Oncol 2005 Jul;6(4): p347-54.

Increased calcitonin level in thyroid nodules without medullary carcinoma. Gibelin H; Essique D; Jones C; Levillain P; Marechaud R; Kraimps JL. Br J Surg 2005 May;92(5): p574-8.

Medullary thyroid carcinoma: including MEN 2A and MEN 2B syndromes. Quayle FJ; Moley JF. J Surg Oncol 2005 Mar 1;89(3): p122-9.

The pathology of preclinical medullary thyroid carcinoma. Ashworth M. Endocr Pathol 2004 Fall;15(3): p227-31.

Cushing's syndrome due to medullary thyroid carcinoma: diagnosis by proopiomelanocortin messenger ribonucleic acid in situ hybridization.

Smallridge RC; Bourne K; Pearson BW; Van Heerden JA; Carpenter PC; Young. J Clin Endocrinol Metab 2003 Oct;88(10): p4565-8.

A population-based analysis of survival factors in differentiated and medullary thyroid carcinoma. Bhattacharyya N. Otolaryngol Head Neck Surg 2003 Jan;128(1): p115-23.

Case 10

66 y/o man with a thyroid mass. Two resected fragments were 4 and 6 cm and contained multiple tan nodules up to 0.6 cm.

Dx: Multicentric papillary thyroid carcinoma

Fine needle aspiration cytology of follicular variant of papillary carcinoma of the thyroid: Morphologic pointers to its diagnosis. Aron M; Mallik A; Verma K. Acta Cytol 2006 Nov-Dec;50(6): p663-8.

Solid/trabecular variant papillary carcinoma of the thyroid: Report of three cases with fine-needle aspiration. Nguyen GK; Lee MW. Diagn Cytopathol 2006 Oct;34(10): p712-4.

Follicular variant of papillary thyroid carcinoma: a clinicopathologic study of a problematic entity. Liu J; Singh B; Tallini G; Carlson DL; Katabi N; Shaha A; Tuttle RM; Ghossein RA. Cancer 2006 Sep 15;107(6): p1255-64.

Papillary thyroid carcinoma: an overview. Al-Brahim N; Asa SL. Arch Pathol Lab Med 2006 Jul;130(7): p1057-62.

Primary spindle cell lesions of the thyroid gland; an overview. Papi G; Corrado S; Li Volsi VA. Am J Clin Pathol 2006 Jun;125 Suppl:S95-123.