

xxv Congreso de la Sociedad Española de Anatomía
Patológica y División Española de la International
Academy of Pathology

XX Congreso de la Sociedad Española de Citología
I Congreso de la Sociedad Española de Patología
Forense

FORENSE

18 al 19 de Mayo de 2011

Club de Patología
Endocrina



Catarina Eloy

Department of Pathology, Hospital de S. João

Department of Pathology, Medical Faculty of University of Porto

Institute of Molecular Pathology and Immunology of University of Porto
Porto, Portugal.



Clinical setting

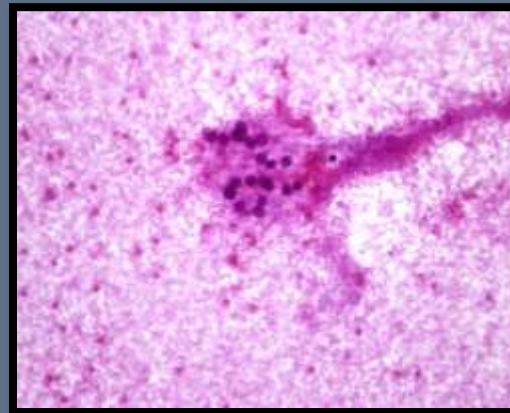
, 70-year-old

Smoking habits and type 2 diabetes

- Non toxic **nodular goiter** without associated complains
- ✓ No radiation exposure or familial history of thyroid pathology
- ✓ Thyroid function tests - OK

Imagiological and cytological findings

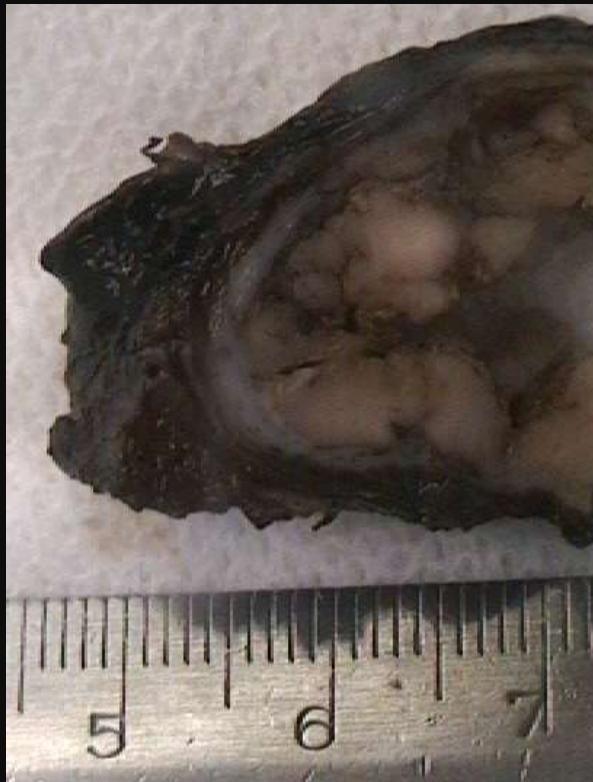
Thyroid US: solid and cystic nodule in the right lobe measuring 2.5cm



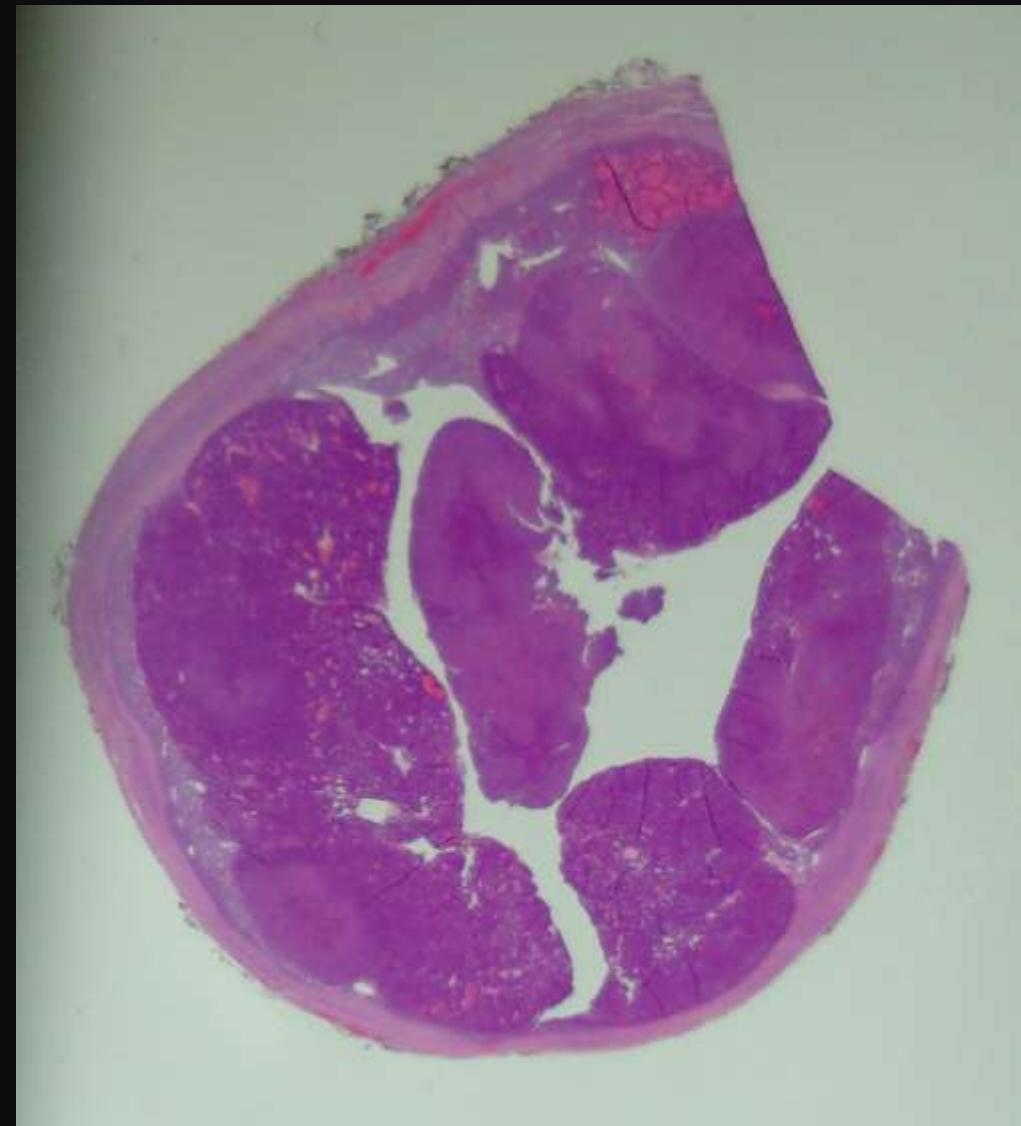
CT scan and MRI : absence of other lesions /enlarged lymph nodes

Scyntigraphy: negative for metastatic disease

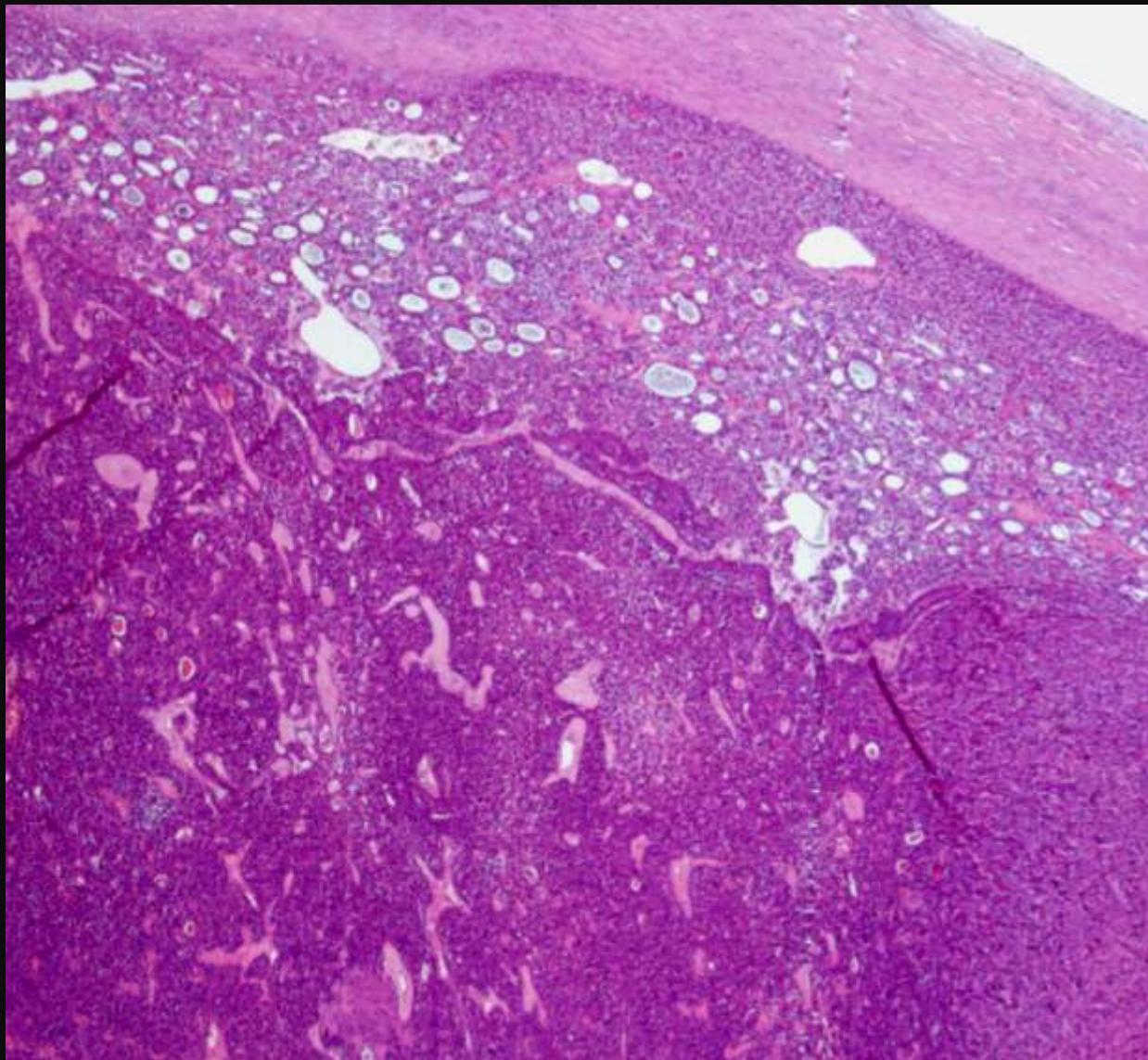
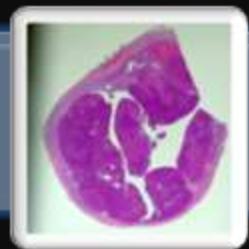
Macroscopic examination



38g
 $N=3.2 \times 3.0 \times 2.6$
cm

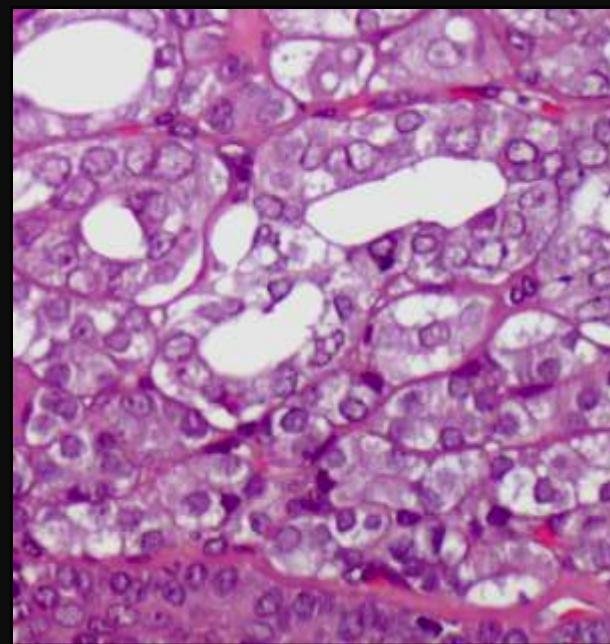
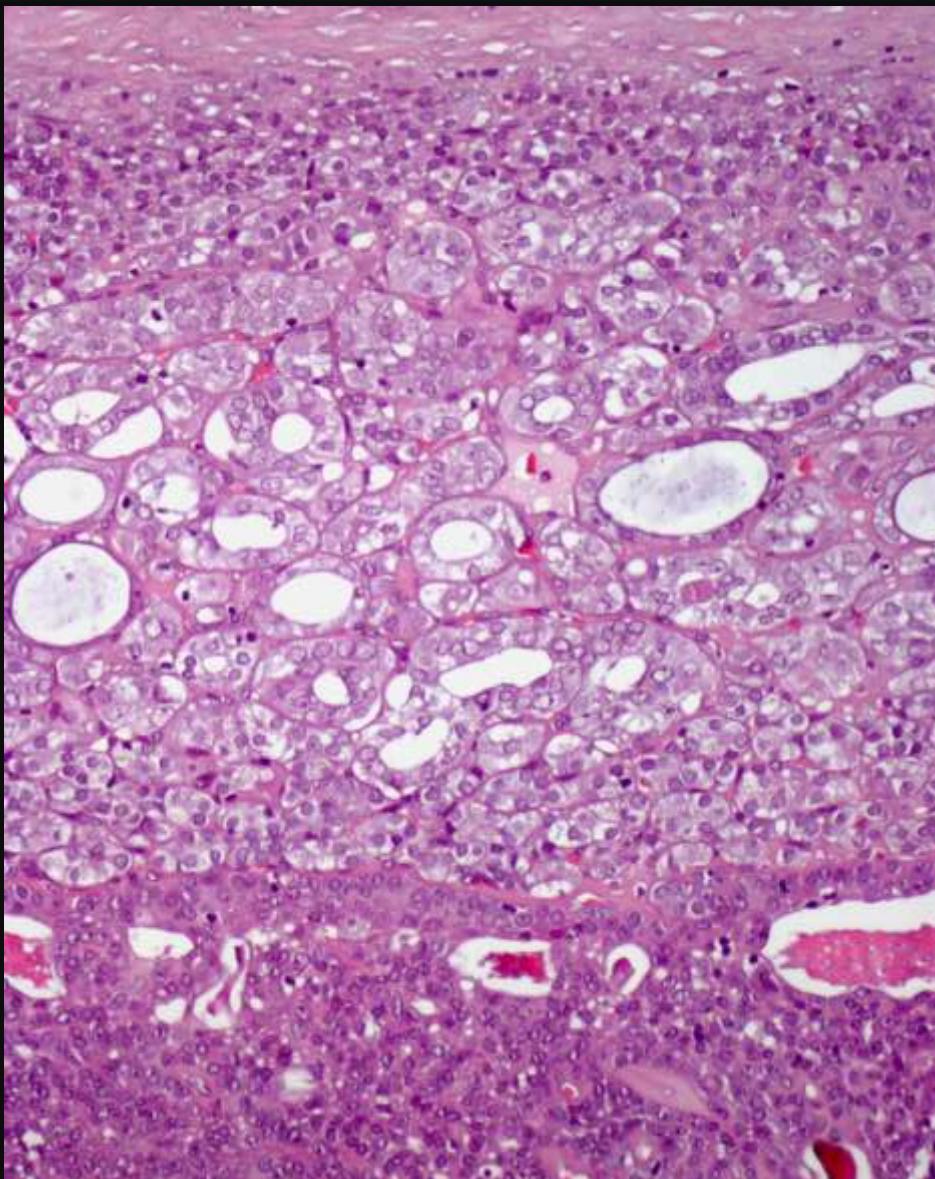
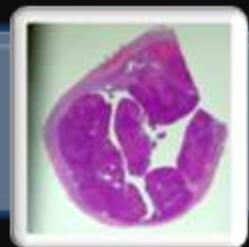


Microscopic examination



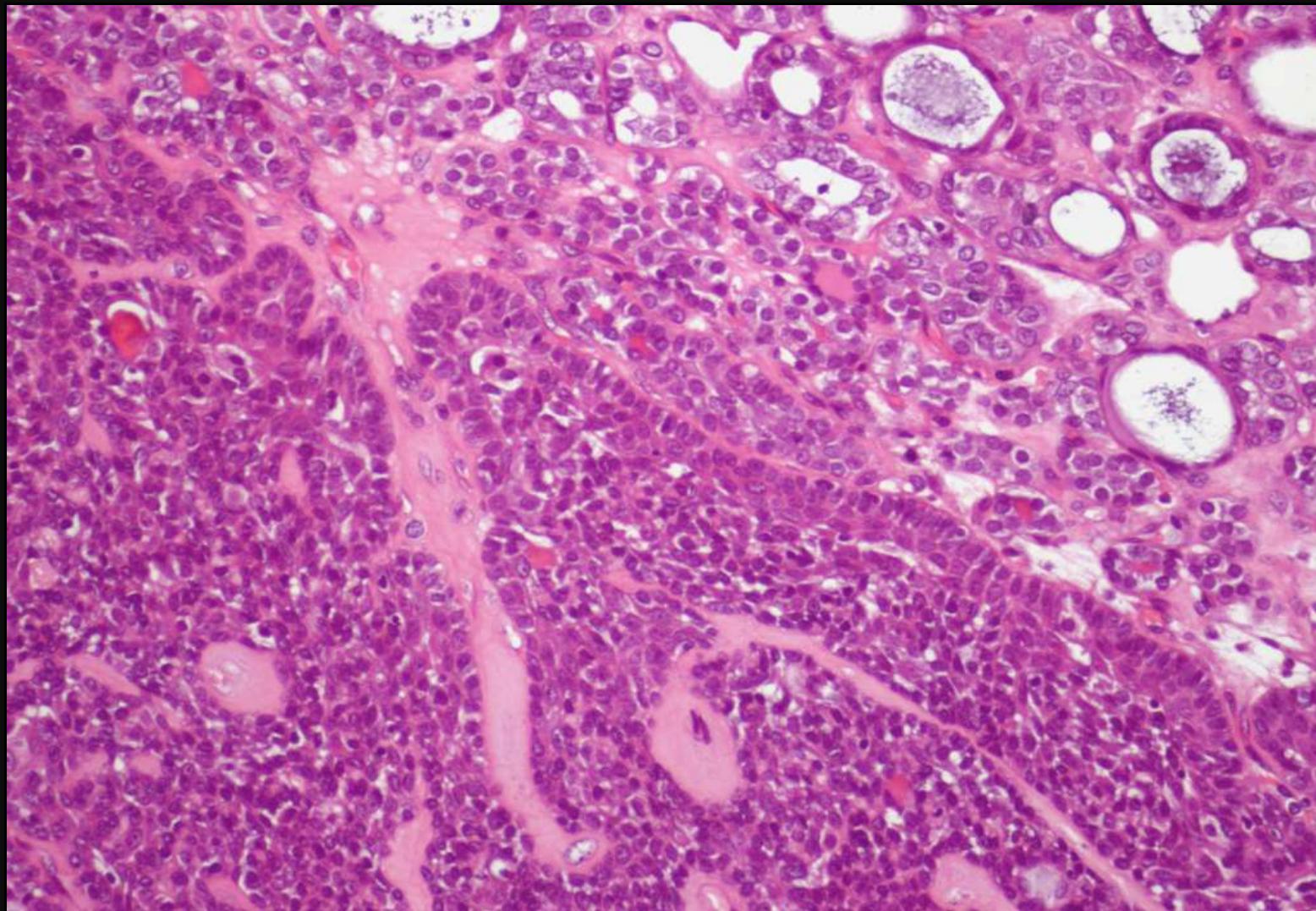
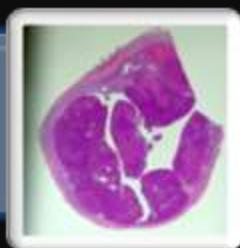
HE, 40x

Microscopic examination



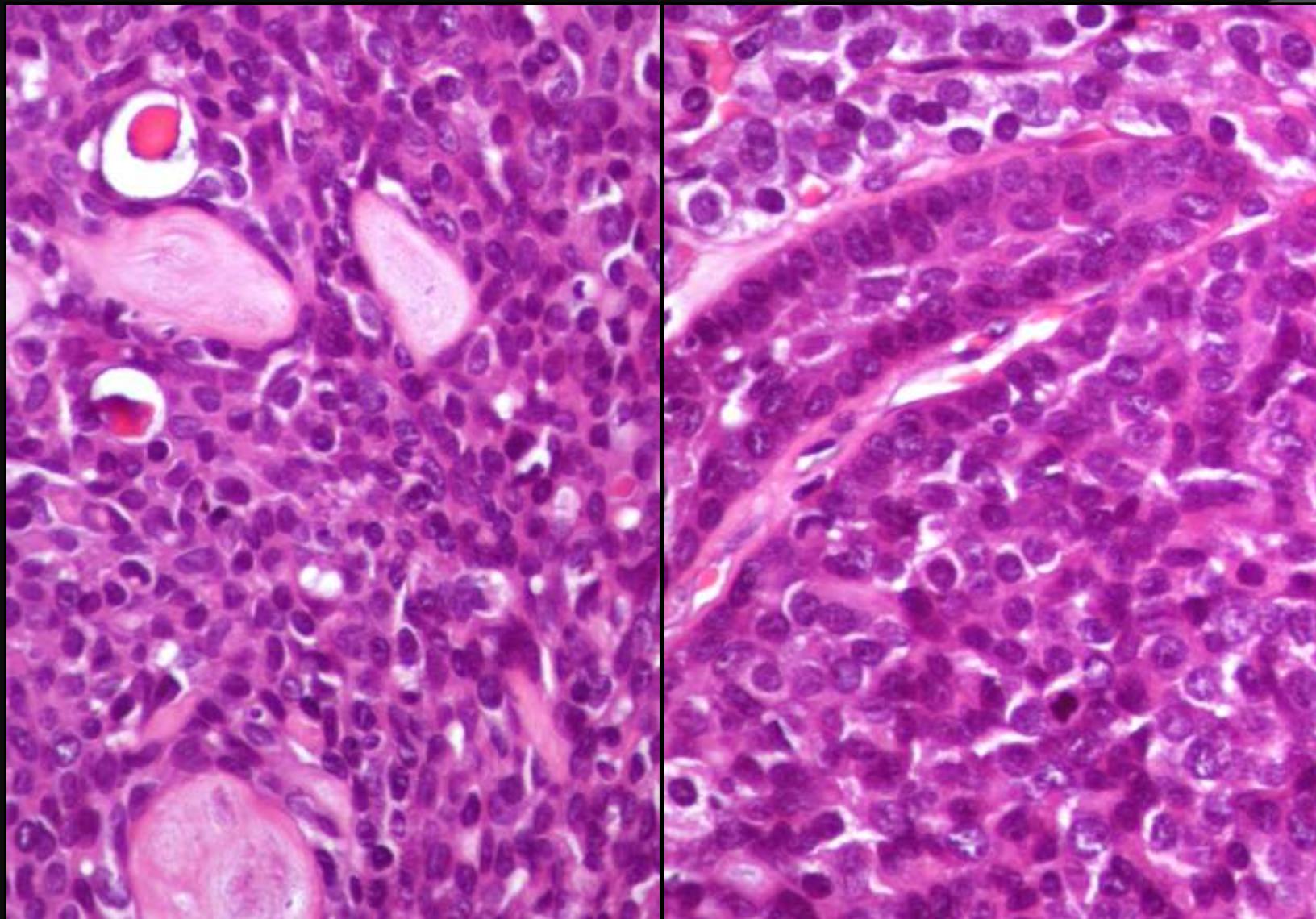
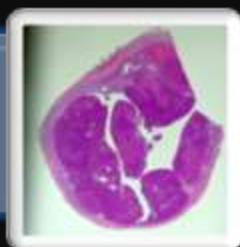
HE, 200x, 400x

Microscopic examination



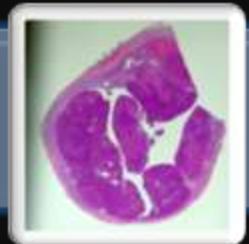
HE, 200x

Microscopic examination



HE
400x

Diagnosis?



Tumor-in-tumor

Follicular adenoma
Follicular variant of PTC
Central lesion?

Poorly differentiated/undifferentiated carcinoma

Metastasis

Ectopic intra-thyroid tissue and related neoplasms

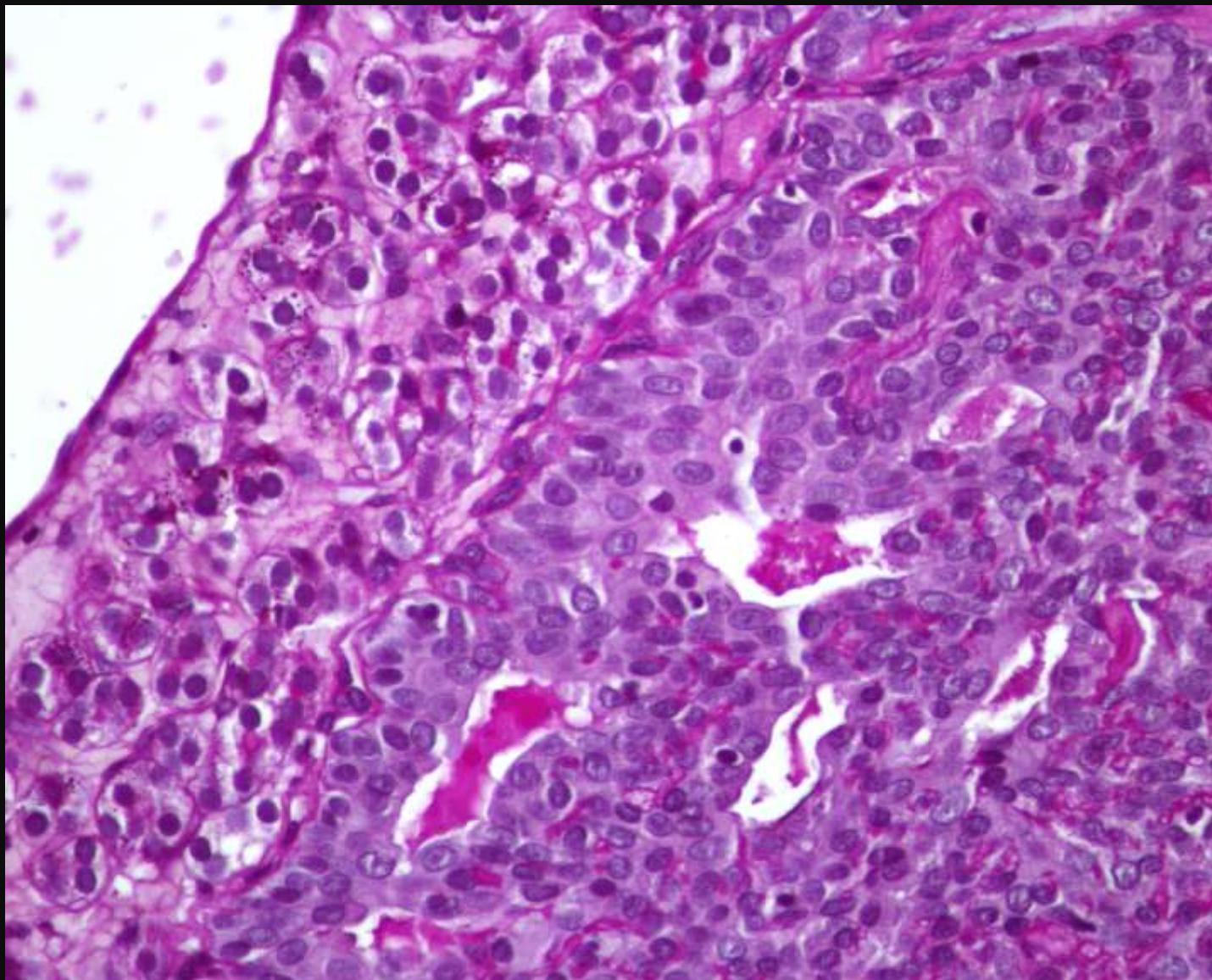
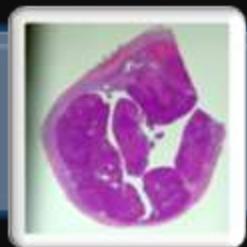
Parathyroid

Thymus

Salivary gland

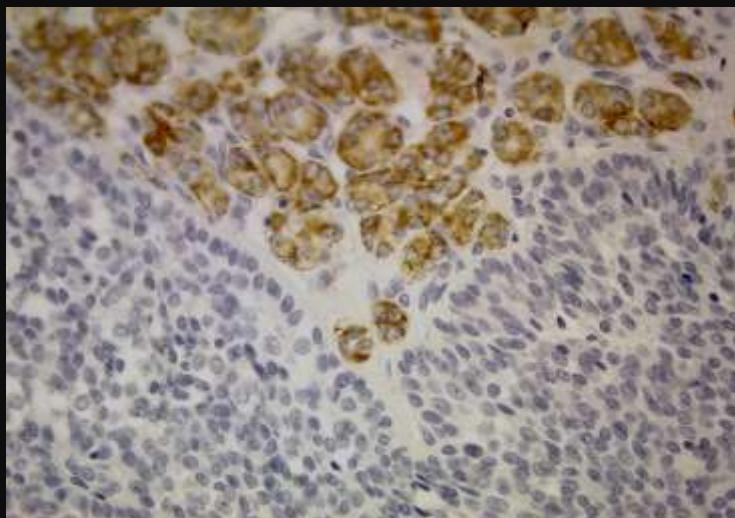
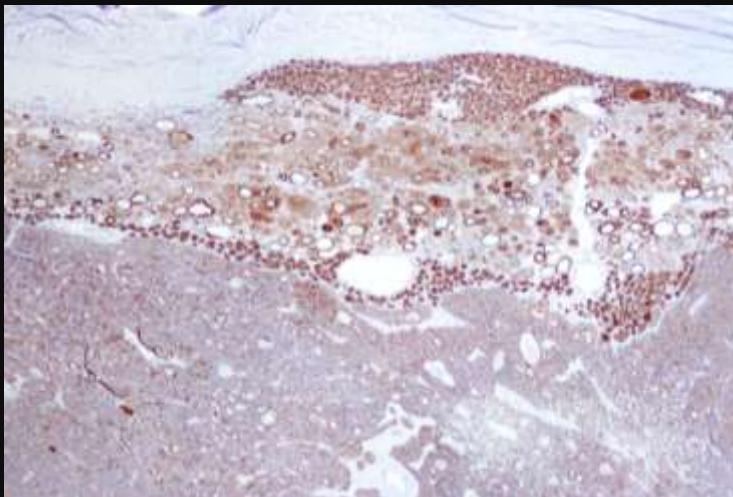
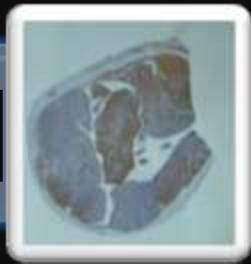
Other...

Histochemical study

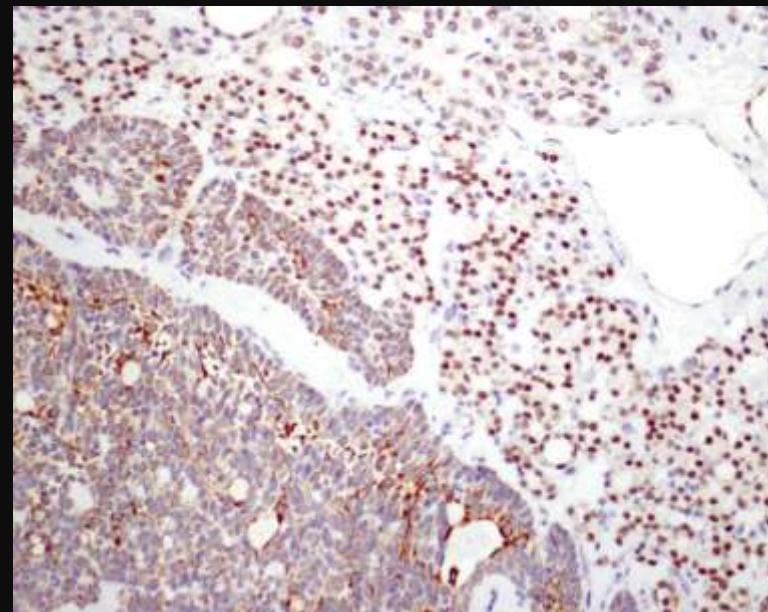


PAS,
400x

Immunohistochemistry and

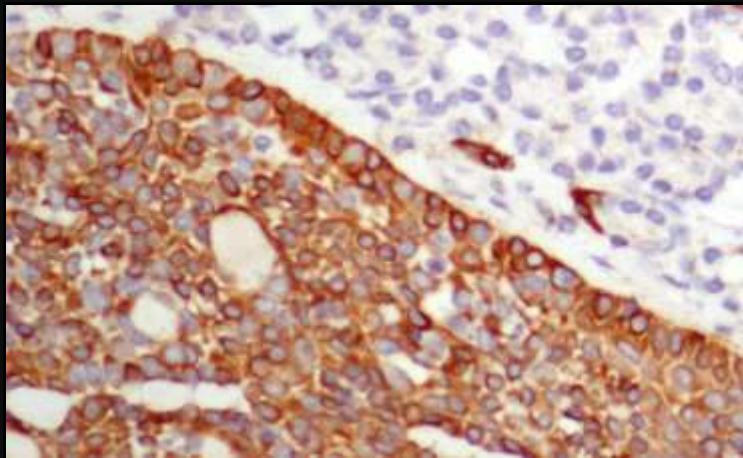
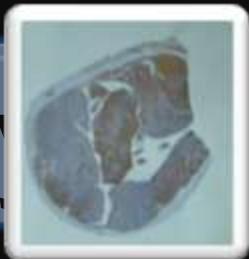


Thyroglobulin,
40x,400x

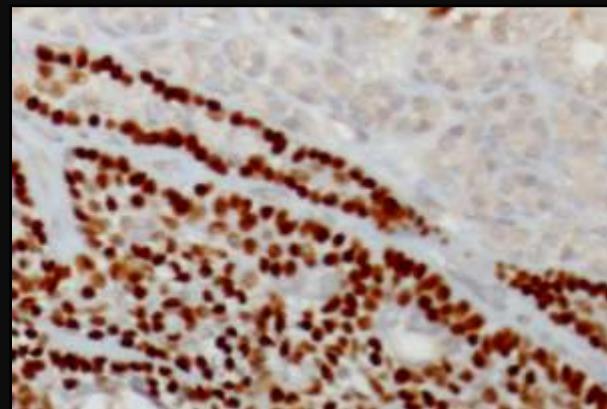


TTF-1,
400x

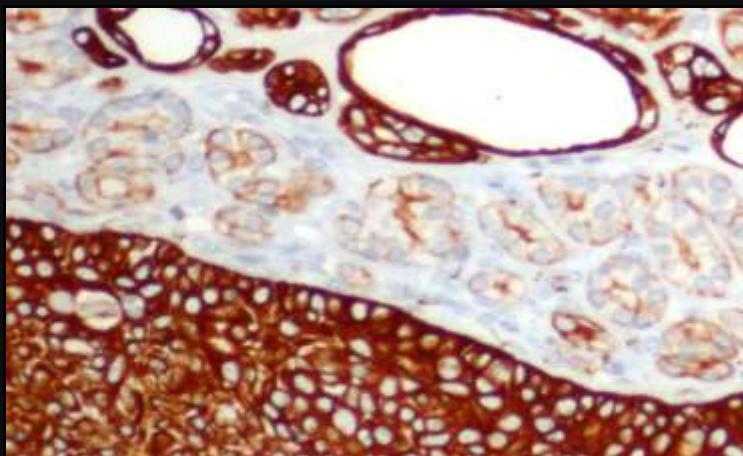
Immunohistochemical study



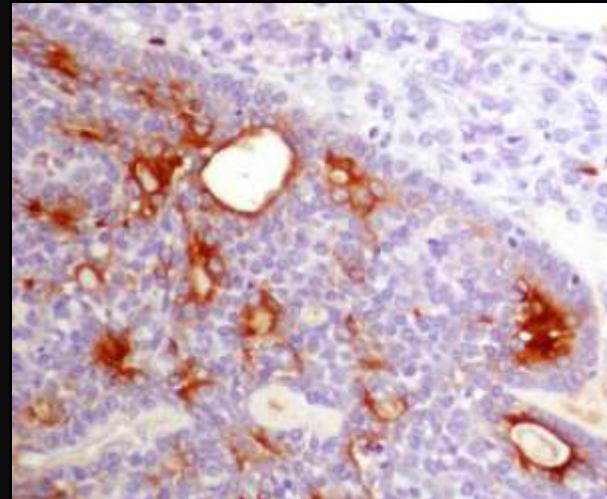
CK5,
200x



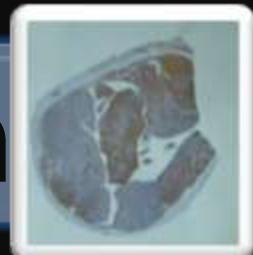
p63,
200x



CK19,
200x



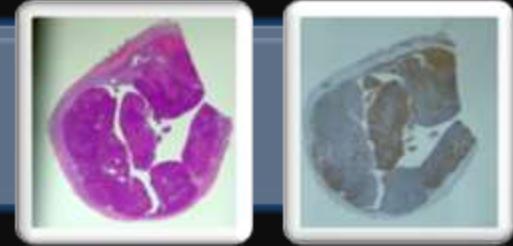
CEA,
200x



Immunohistochemistry panel

PRIMARY ANTIBODY	FA	FVPTC	CENTRAL LESION
Cytokeratins AE1AE3	F	+	F
Cytokeratin 5	-	-	+
Cytokeratin 7	+	+	+
Cytokeratin 19	-	+	+
Cytokeratin 20	-	-	-
TTF-1	+	+	-
Thyroglobulin	+	+	-
Calcitonin	-	-	-
Synaptophysin and Chromogranin A	-	-	-
p53	-	-	-
p63	-	F	+
CEA	-	-	+
SMA and S100 protein	-	-	-
Vimentin	F	+	-
Galectin 3	-	F	F
CD5	-	-	-
Ki-67	<1%	<1%	5%

Diagnosis?



Tumor-in-tumor

Follicular adenoma
Follicular variant of PTC
Central lesion?

Poorly differentiated/undifferentiated carcinoma

Metastasis

Ectopic intra-thyroid tissue and related neoplasms

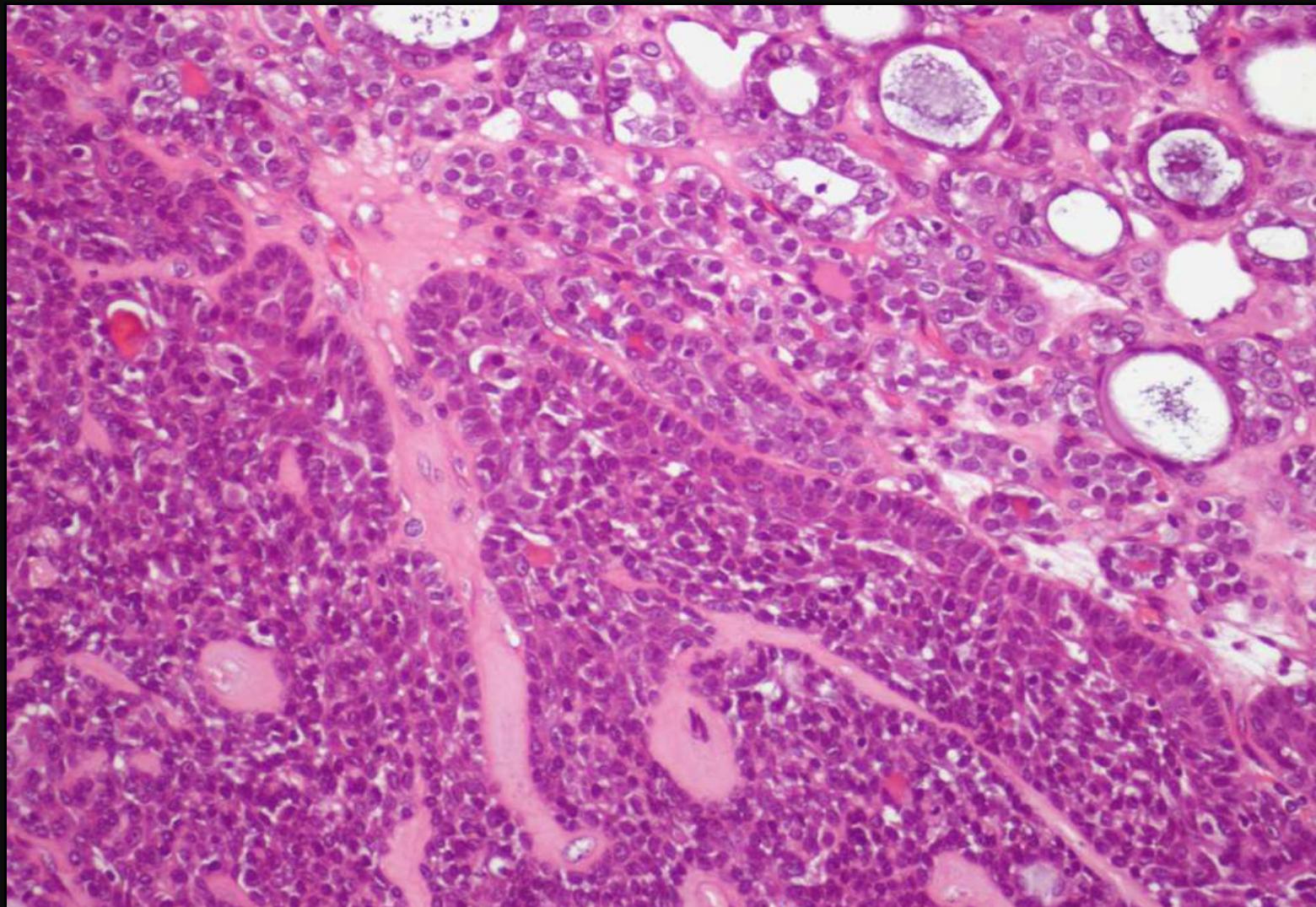
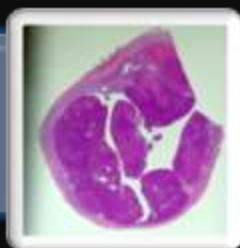
Parathyroid

Thymus

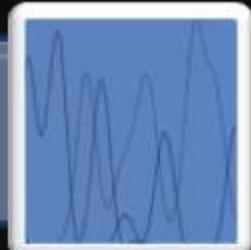
Salivary gland

Other...

Microscopic examination

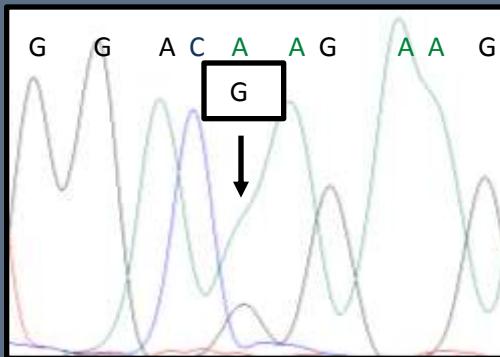


HE,
200x

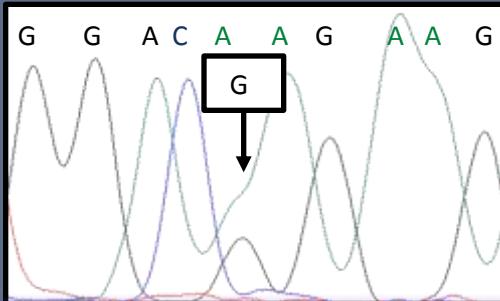


Molecular study

N-RAS Q61R (CAA-CGA)



FV-PTC



Central
lesion

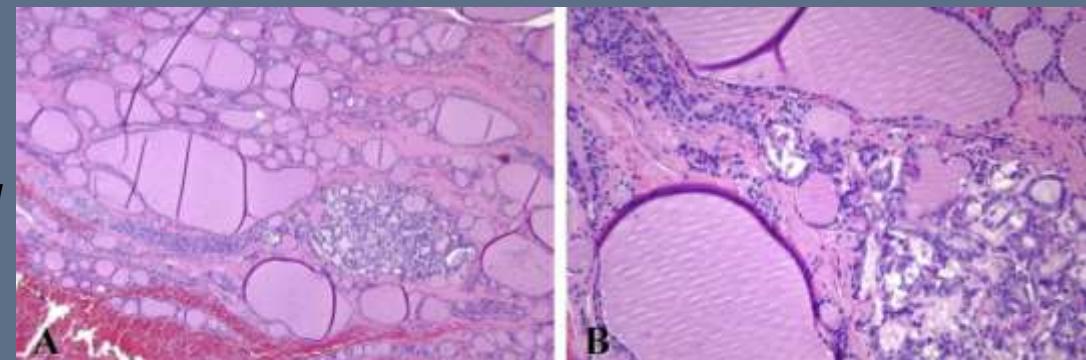
TP53 mutations – absent
BRAF mutations – absent



Case study

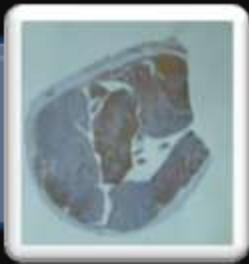
BRAF mutation in solid cell nest hyperplasia associated with papillary thyroid carcinoma. A precursor lesion?

José Cameselle-Teijeiro MD, PhD^{a,*}, Ihab Abdulkader MD PhD^a,
Raquel Pérez-Becerra BSc^a, Angel Vázquez-Boquete BSc^a,
Lara Alberté-Lista MD^b, Clara Ruiz-Ponte PhD^c,
Jerónimo Forteza MD, PhD^a, Manuel Sobrinho-Simões MD, PhD^{d,e,f}



Human
PATHOLOGY

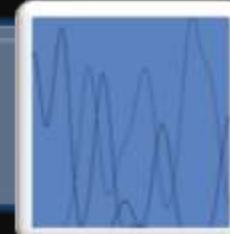
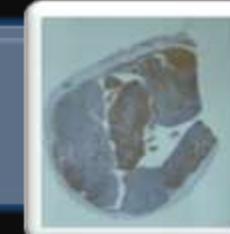
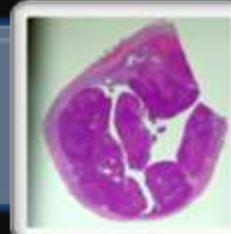
www.elsevier.com/locate/hpath



Comparative immunohistochemistry

PRIMARY ANTIBODY	SOLID CELL NESTS	CENTRAL LESION
Cytokeratins AE1AE3	+	F
Cytokeratin5	+	+
Cytokeratin7	+	+
Cytokeratin19	+	+
Cytokeratin20	-	-
TTF-1	-	-
Thyroglobulin	-	-
Calcitonin	F	-
Synaptophysin and Chromogranin A	-	-
p53	-	-
p63	+	+
CEA	+	+
SMA and S100 protein	-	-
Vimentin	-	-
Galectin 3	+	F
CD5	-	-

Diagnosis interpretation

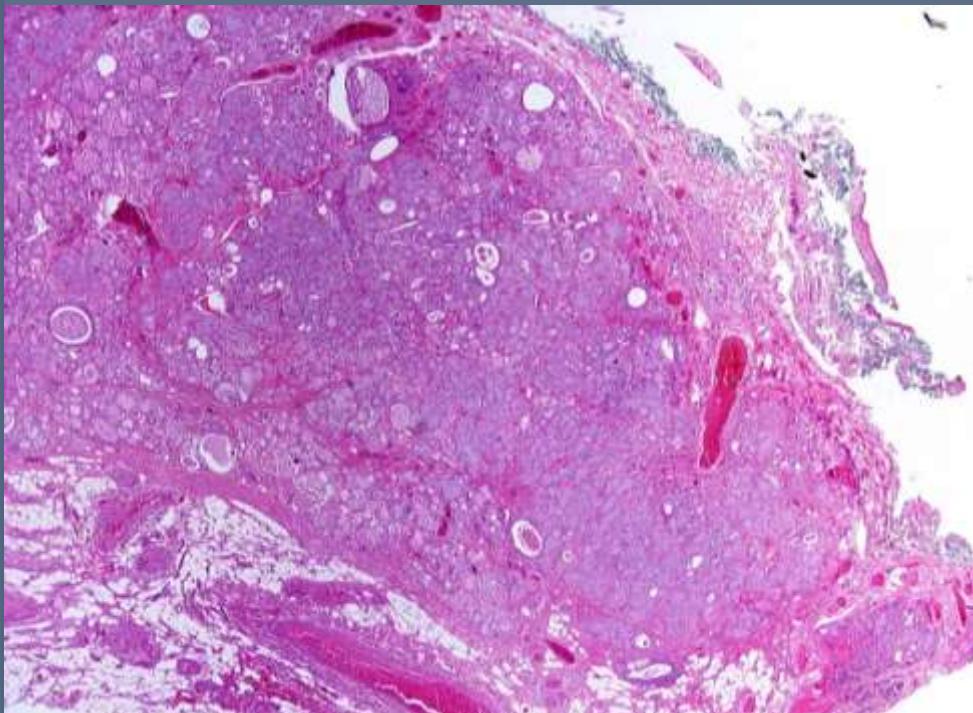


Images in Pathology

"Giant" Solid Cell Rest of the Thyroid: A Hyperplastic Change?

Giovanni Fellegara, MD, Tshering Dorji, MD,
Marta Rezola Bajineta, MD, and Juan Rosai, MD

International Journal of
Surgical Pathology
Volume 17 Number 3
June 2009 268-273
© 2009 The Authors
0887-6165/\$ - see front matter
<https://doi.org/10.1016/j.jss.2009.03.024>

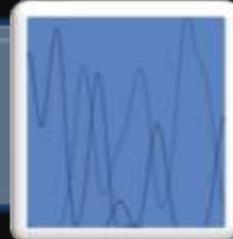
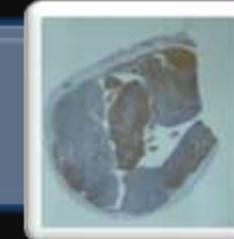
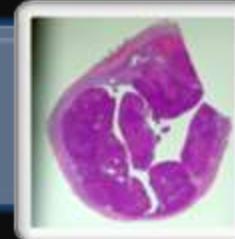


Tumors of the Neck Showing Thymic or Related Branchial Pouch Differentiation: A Unifying Concept

J. K. C. CHAN, MBBS, MRCPath, AND J. ROSAI, MD

Ectopic
hamartomatous
thymoma
Ectopic cervical
thymoma
SETTLE
CASTLE

Diagnosis proposal



Tumor-in-tumor

Follicular adenoma

Follicular variant of PTC

Basaloid tumor with solid cell nests features

REFERENCE

Catarina Eloy, João Vinagre, José Cameselle-Teijeiro, Maria Emilia Paiva, Paula Soares and Manuel Sobrinho-Simões. **Tumor-in-Tumor of the Thyroid With Basaloid Differentiation: A Lesion With a Solid Cell Nest Neoplastic Component?**

INT J SURG PATHOL 2011; 19 (2): 276-280

