

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

18 al 19 de Mayo de 2011

Slide Seminar



SÃO JOÃO
HOSPITAL



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.



Case 1

Clinical setting

, 13-year-old

Rapidly growing nodule of 2.7x2.0cm in the right lobe of the thyroid

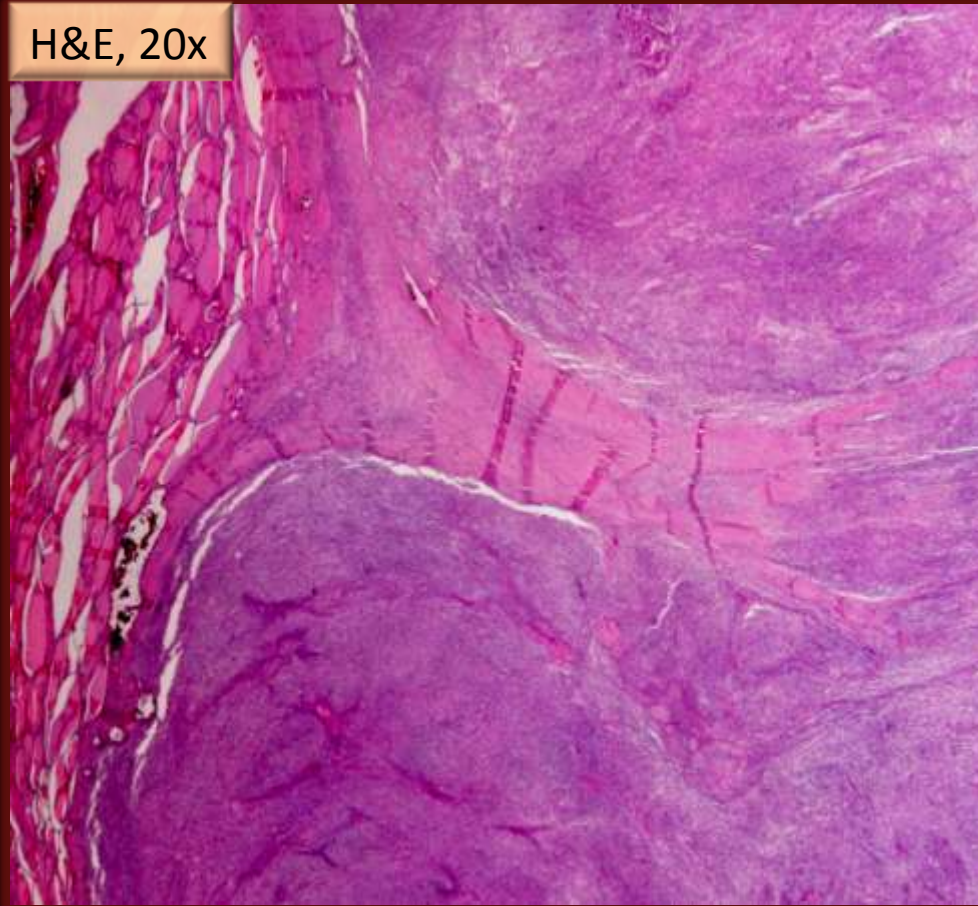
Case 1

H&E, low magnification

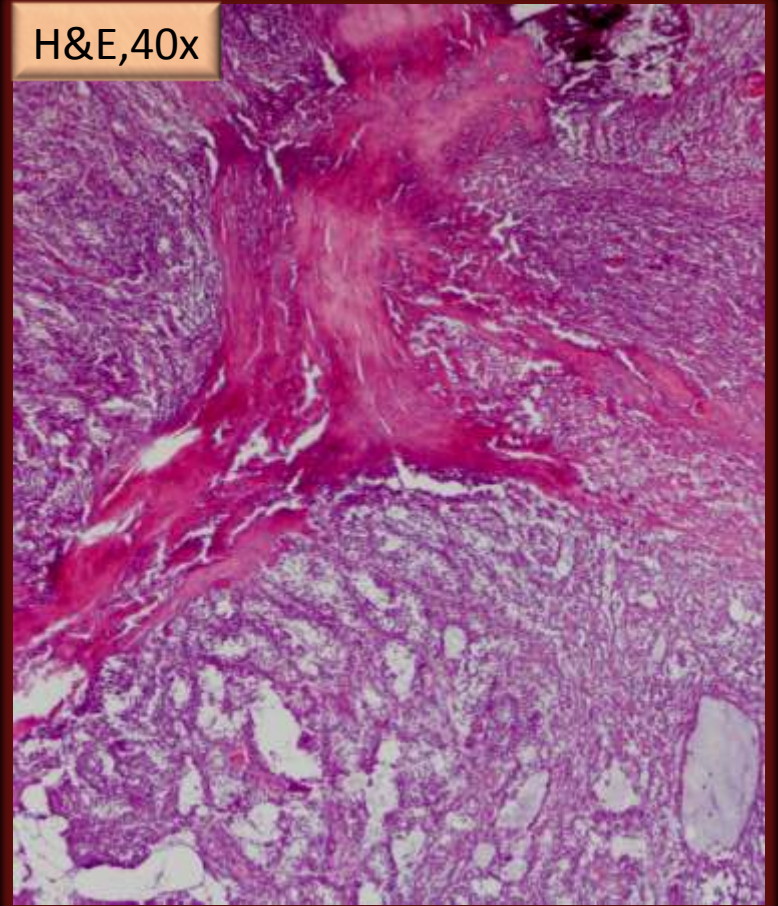


Case 1

H&E, 20x

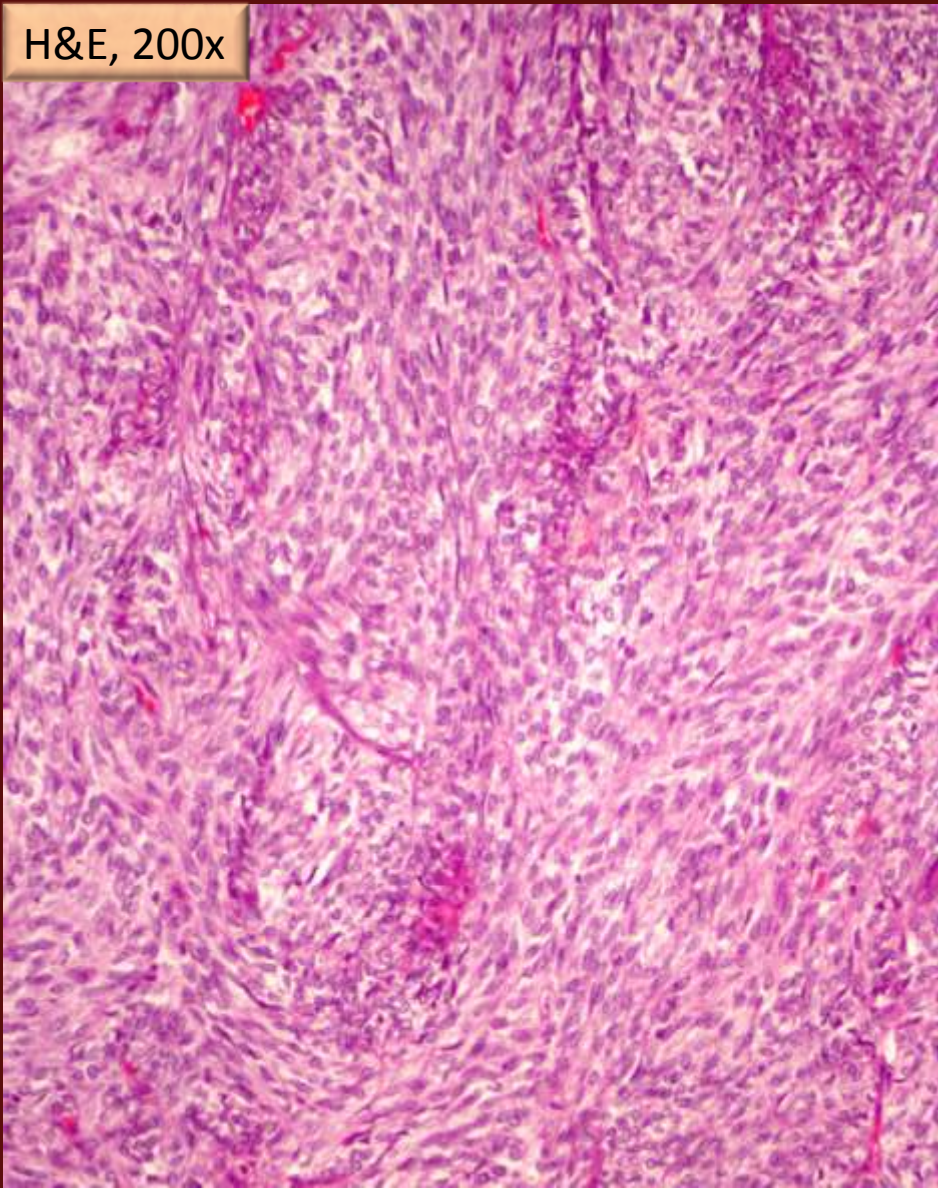


H&E, 40x

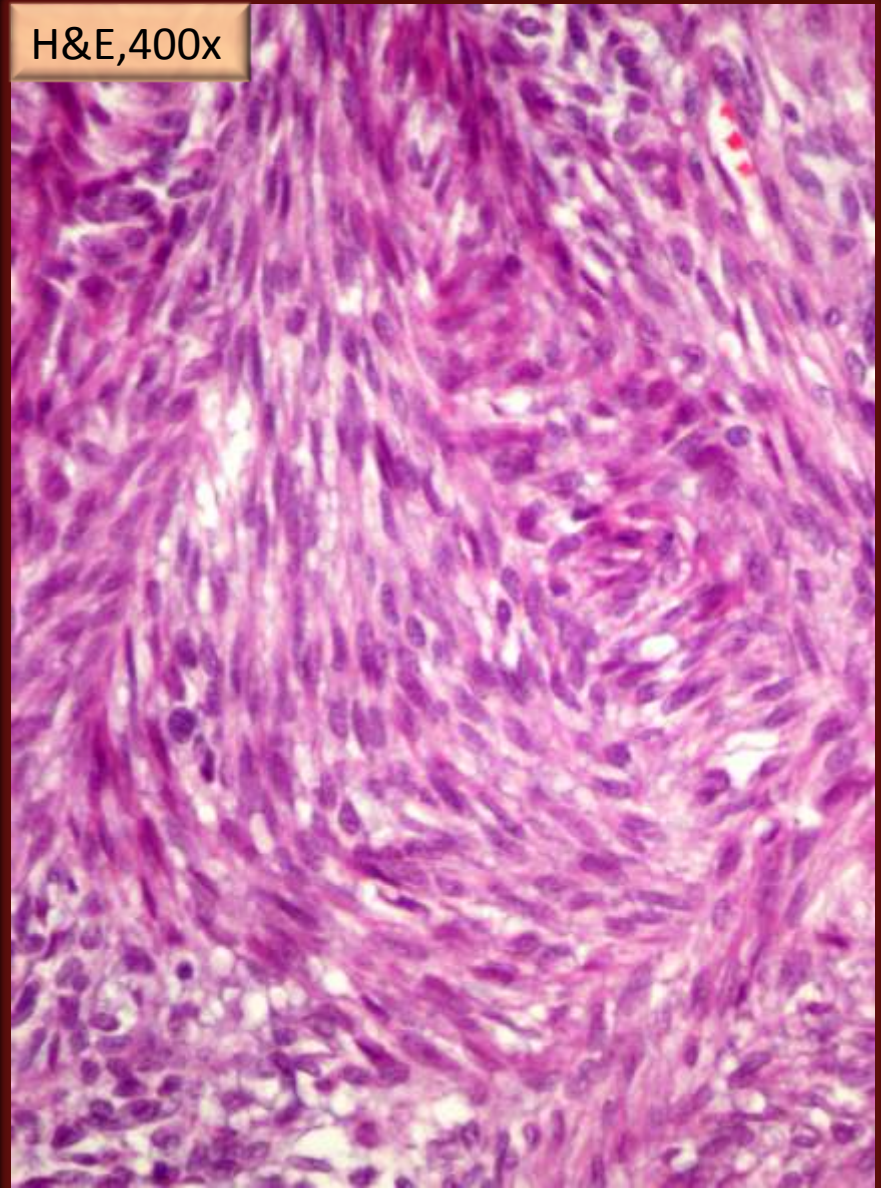


Case 1

H&E, 200x

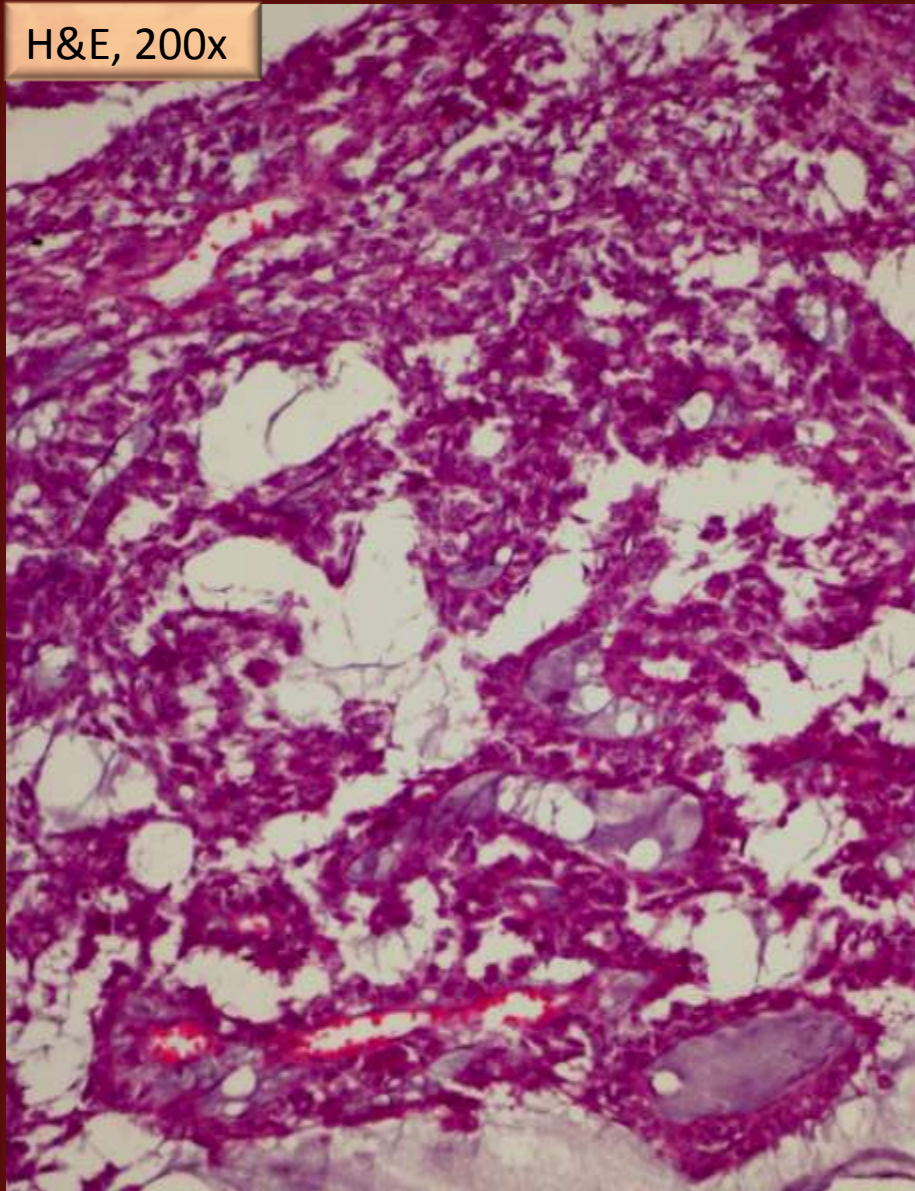


H&E, 400x

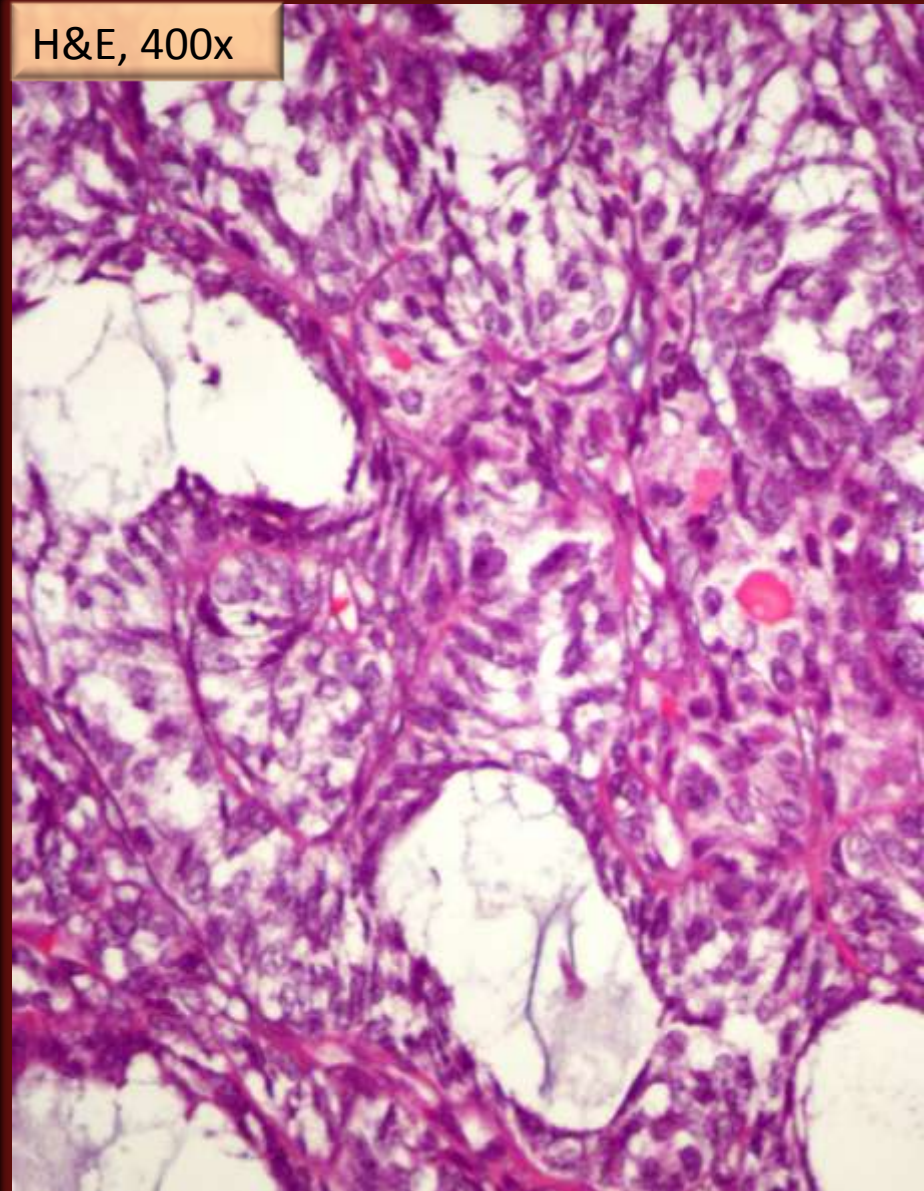


Case 1

H&E, 200x



H&E, 400x



?

? Medullary thyroid carcinoma

? Spindle cell follicular adenoma

? Spindle cell papillary thyroid carcinoma

? Other...

What to do?

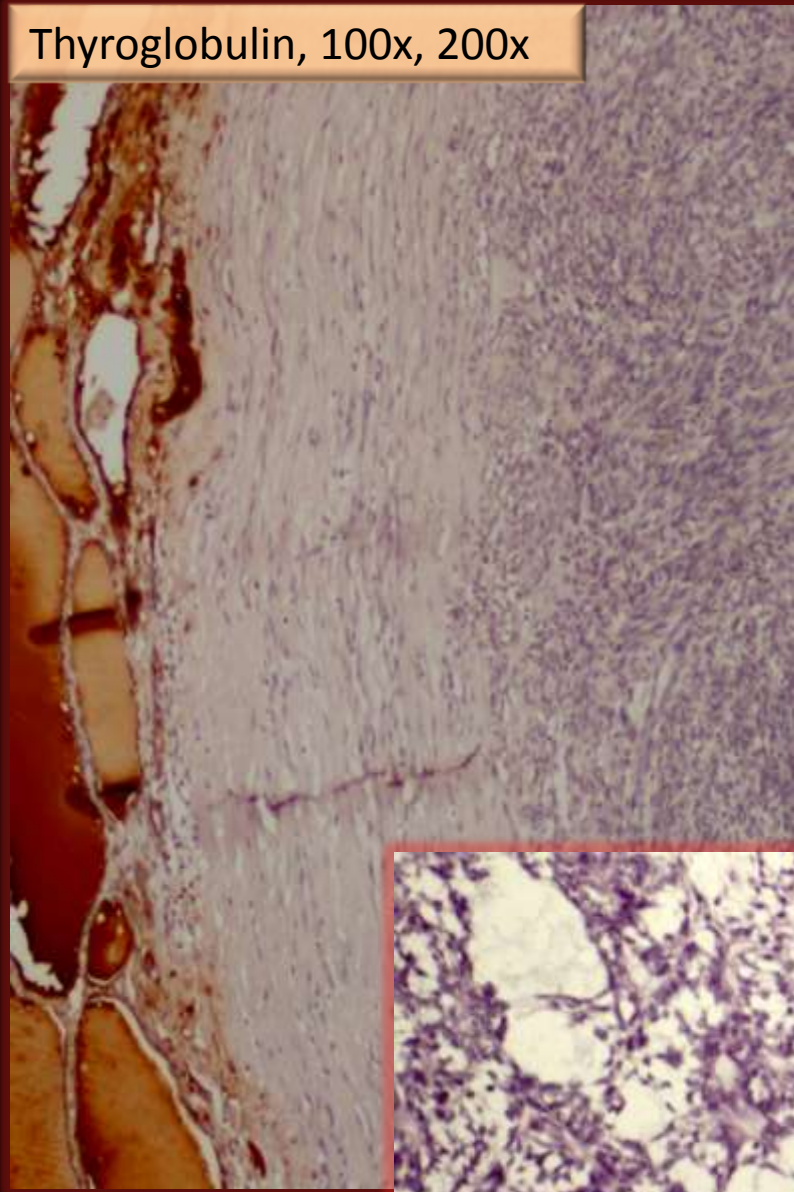
Thyroglobulin

Calcitonin

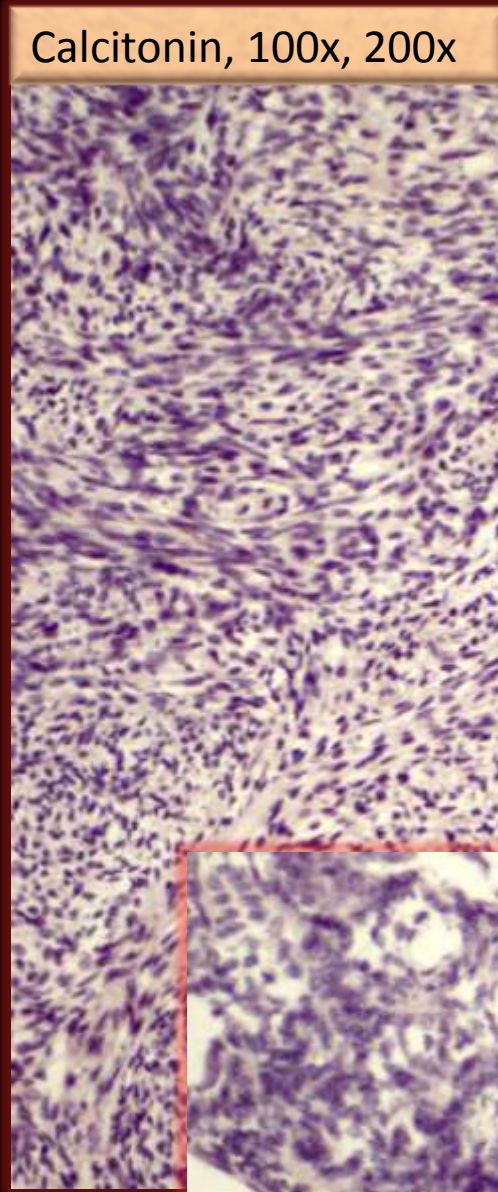
TTF-1

Case 1

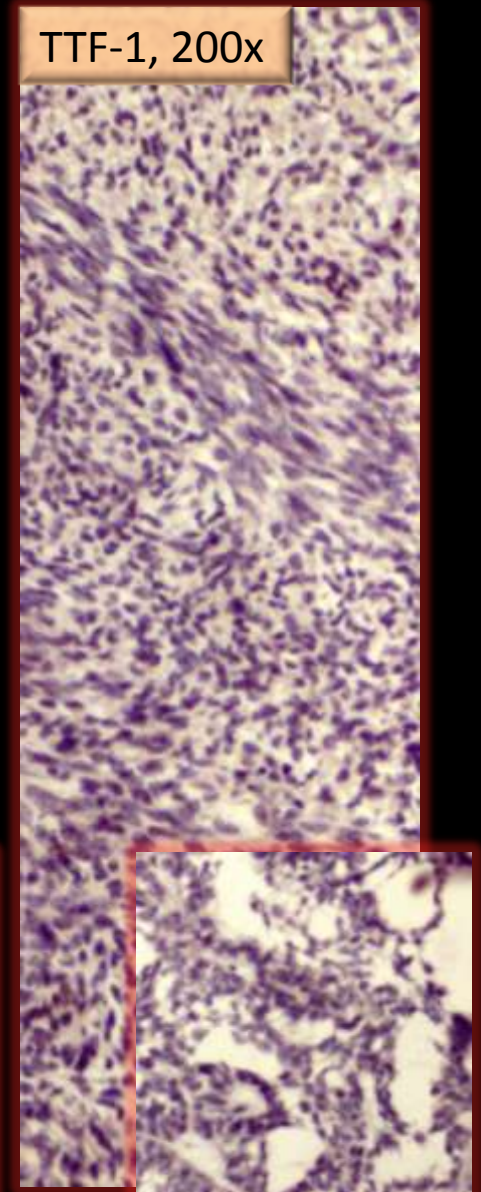
Thyroglobulin, 100x, 200x



Calcitonin, 100x, 200x



TTF-1, 200x

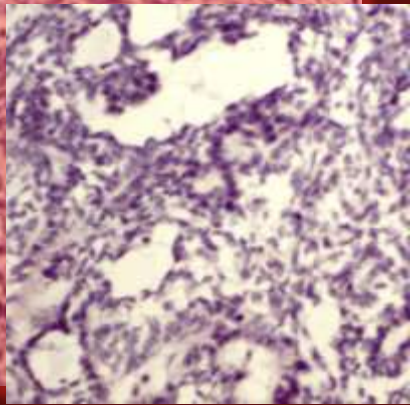
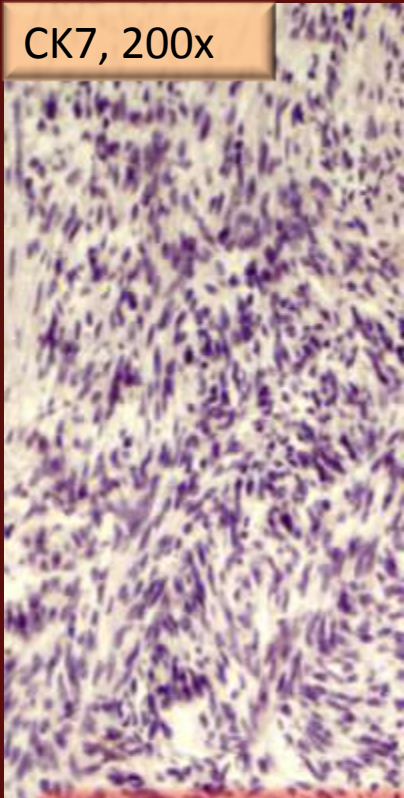


And now?

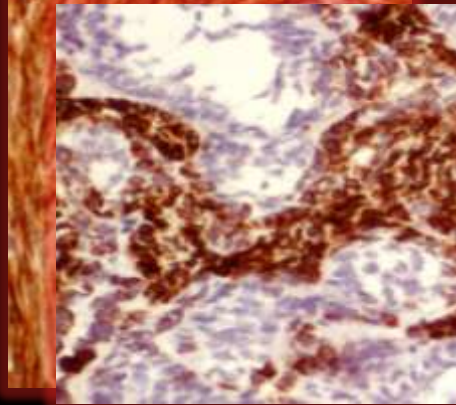
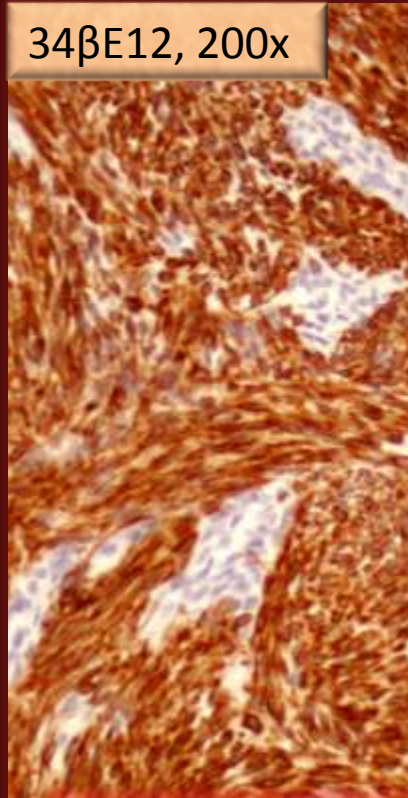
We go for SETTLE!

Case 1

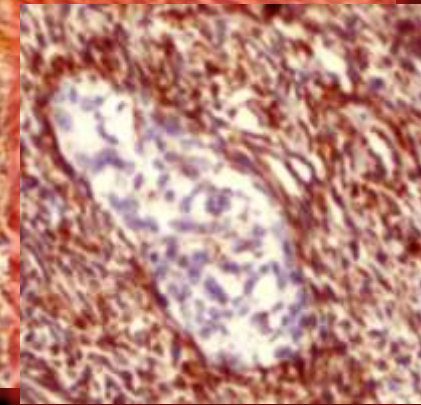
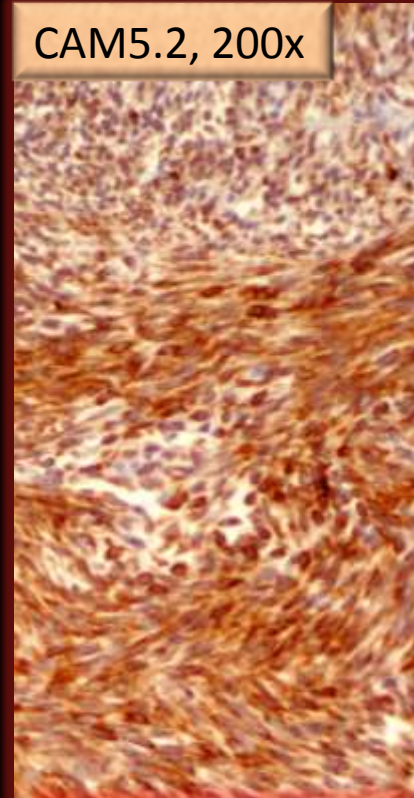
CK7, 200x



34 β E12, 200x

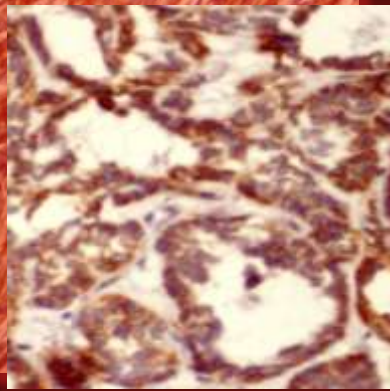
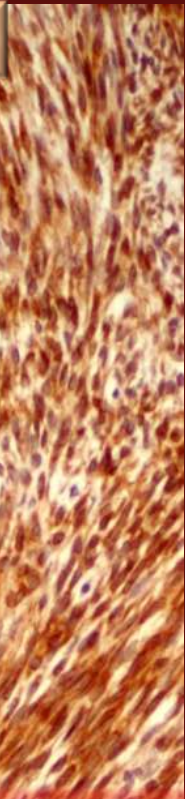


CAM5.2, 200x

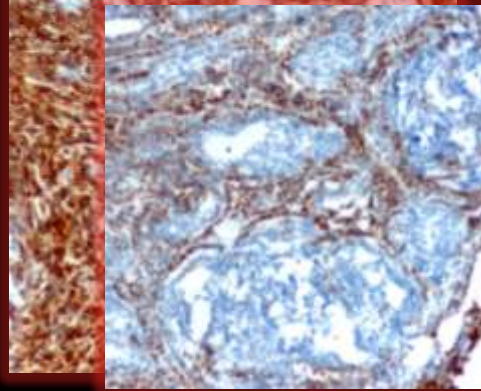
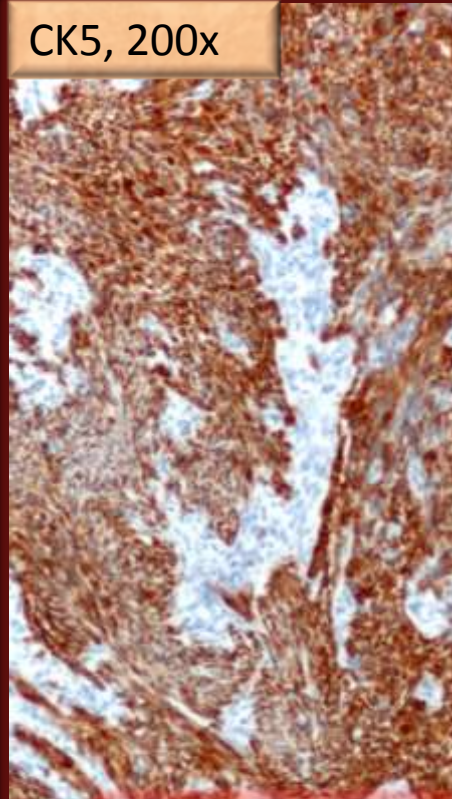


Case 1

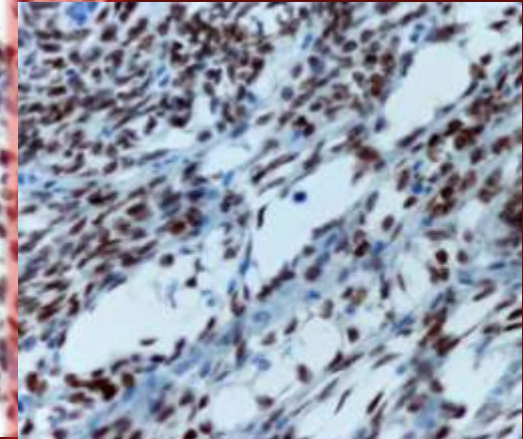
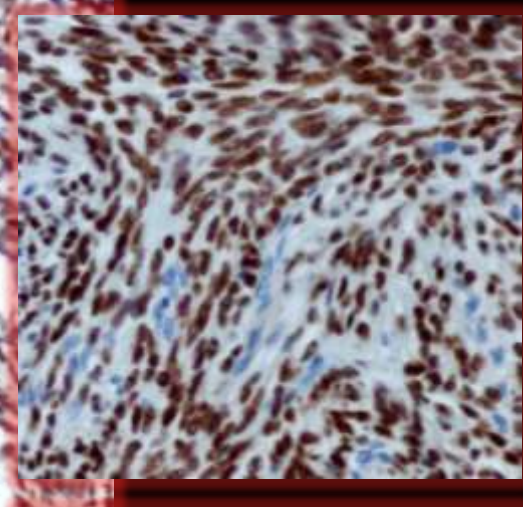
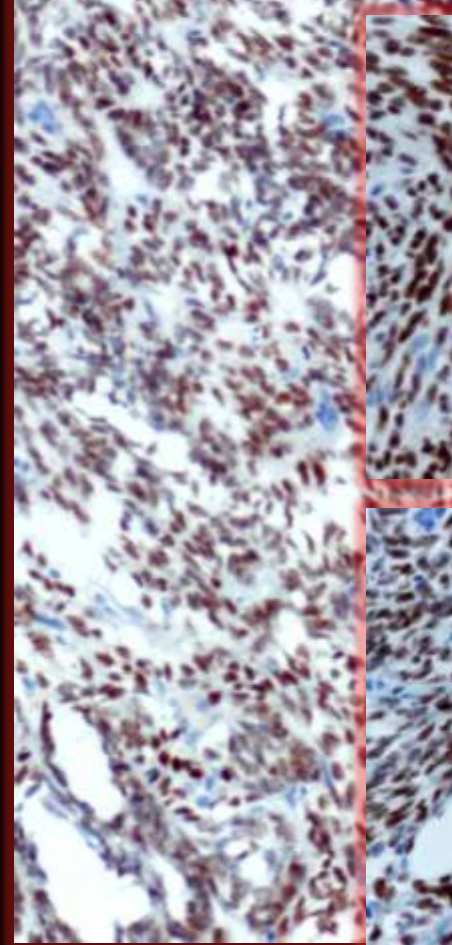
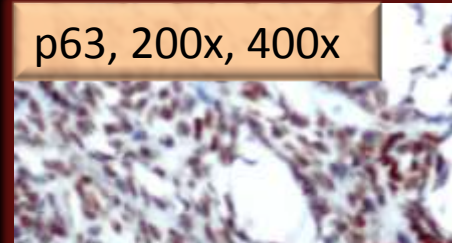
Bcl-2, 200x



CK5, 200x



p63, 200x, 400x



Case 1

Immunohistochemistry panel

| PRIMARY ANTIBODY | Tumor |
|---------------------|---------------|
| Cytokeratins 34βE12 | +S |
| Cytokeratin 5 | +S |
| Cytokeratin 7 | - |
| Cytokeratin 20 | - |
| TTF-1 | - |
| Thyroglobulin | - |
| Calcitonin | - |
| p63 | + |
| Bcl-2 | + |
| CEA | - |
| CD5 | - |
| Ki-67 | <1% |

Case 1

Diagnosis

SETTLE

Spindle cell tumor with thymus-like elements

Clinical setting

, 42-year-old

-Thyroid nodule measuring 2.5x2.0x1.5 cm in the left lobe

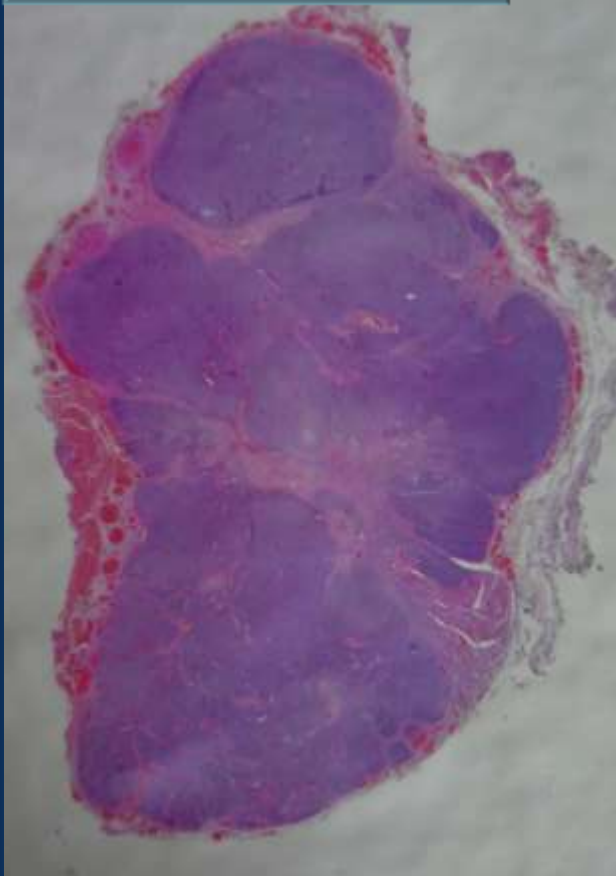
-No further complains

-FNAC: Follicular tumor

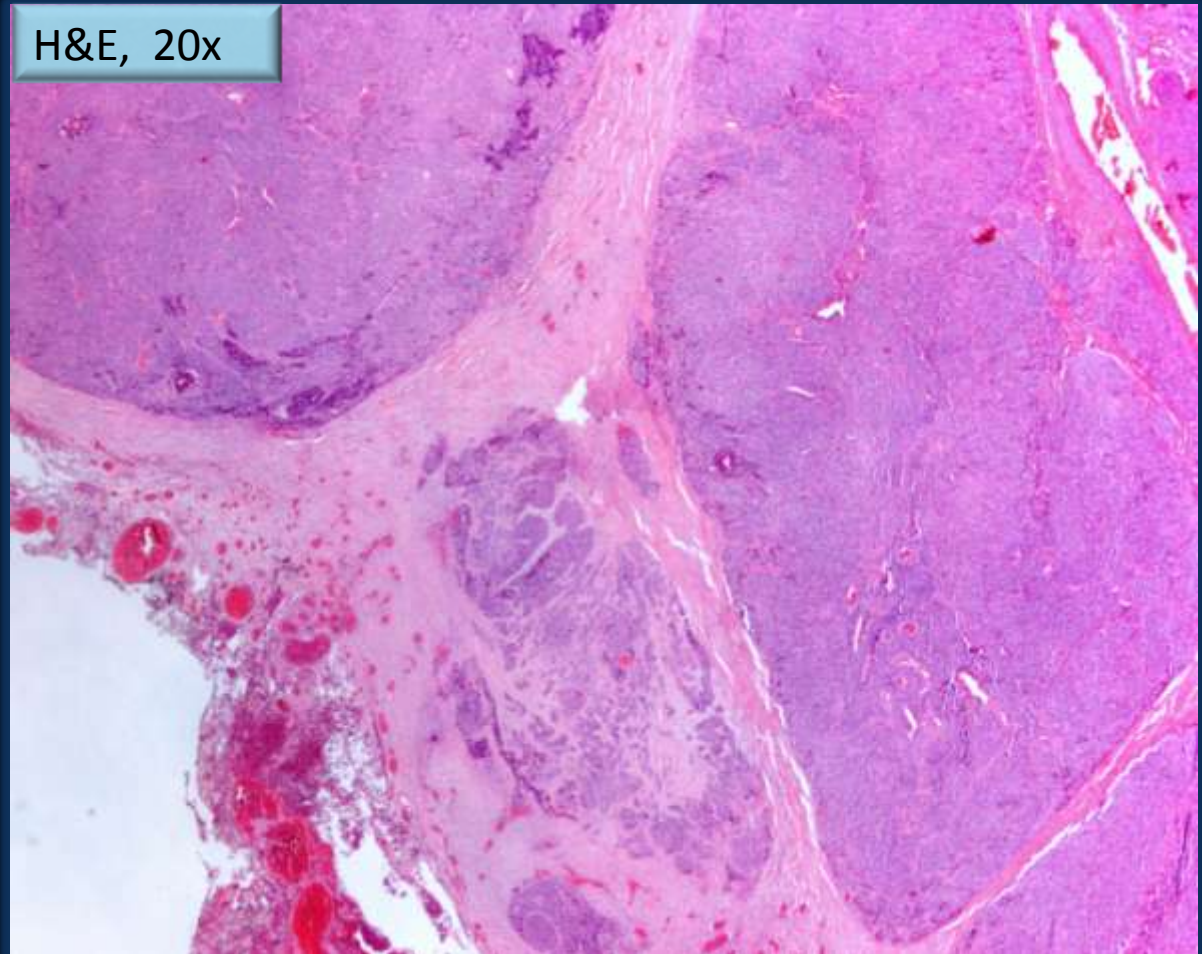
✓ No radiation exposure or familial history of thyroid pathology

Case 2

H&E, low magnification

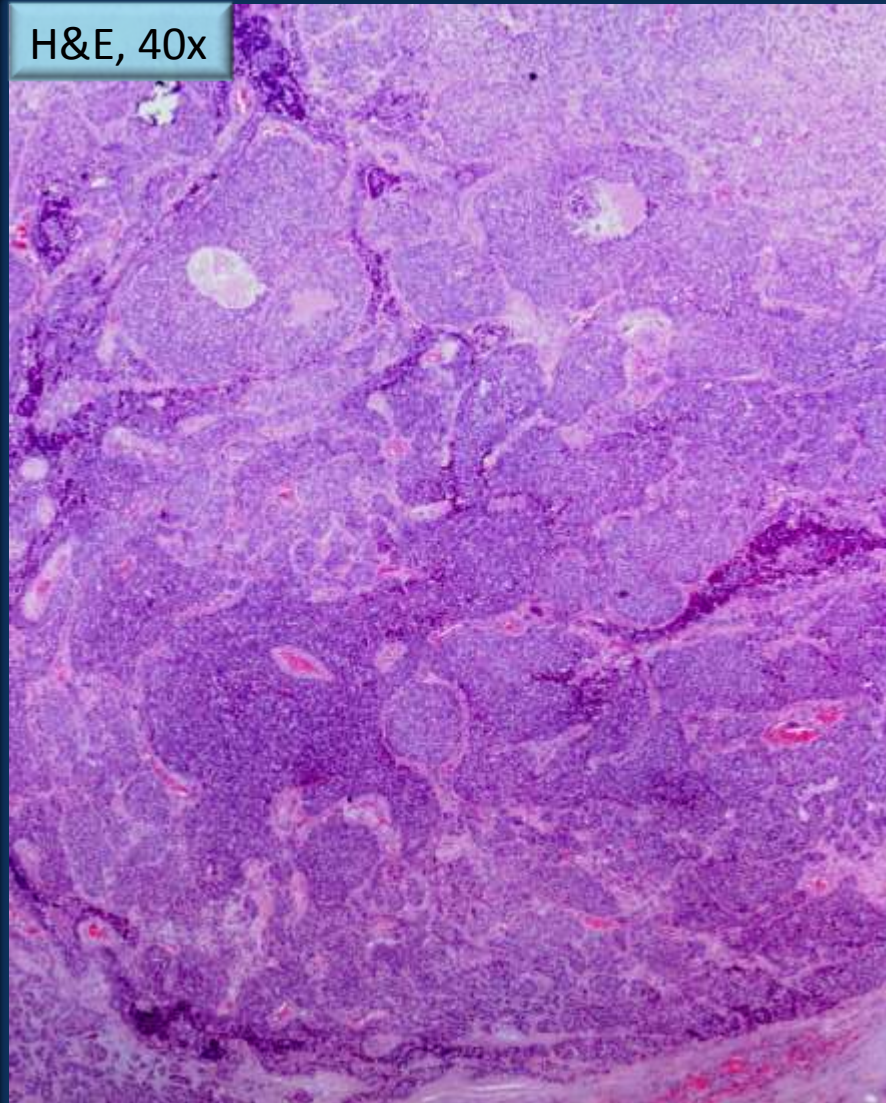


H&E, 20x

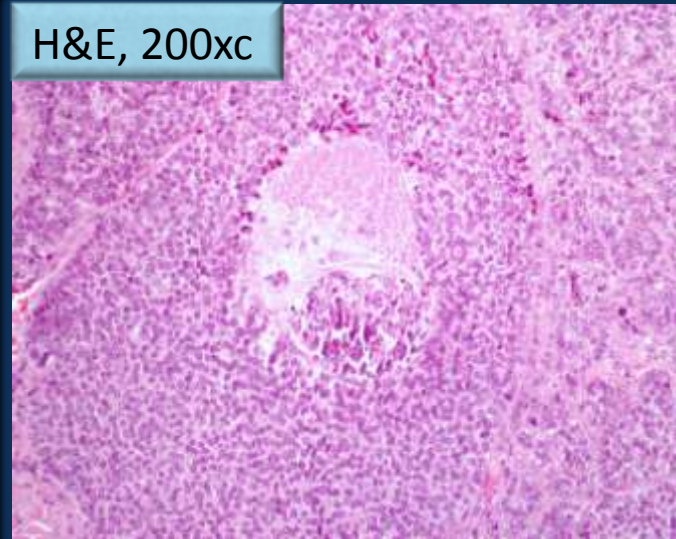


Case 2

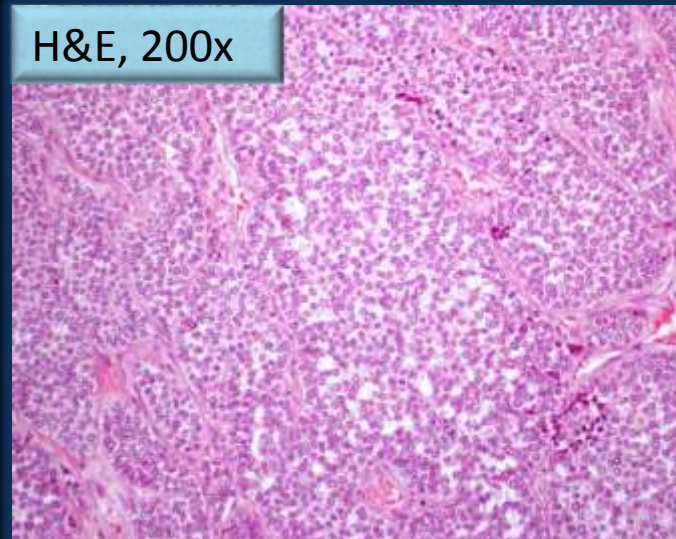
H&E, 40x



H&E, 200xc

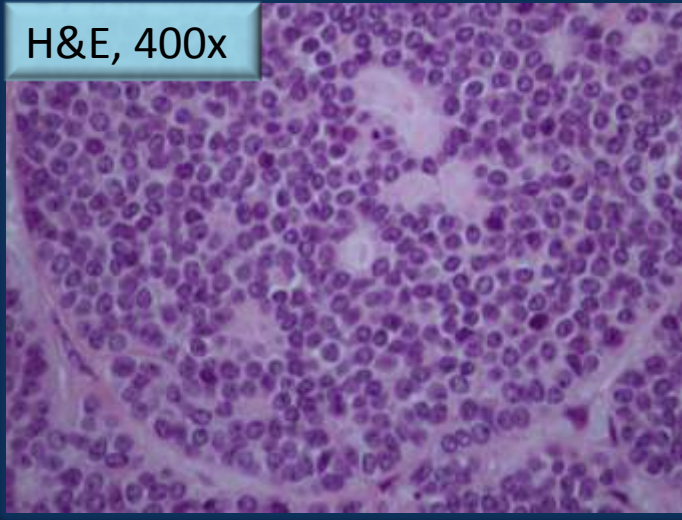


H&E, 200x

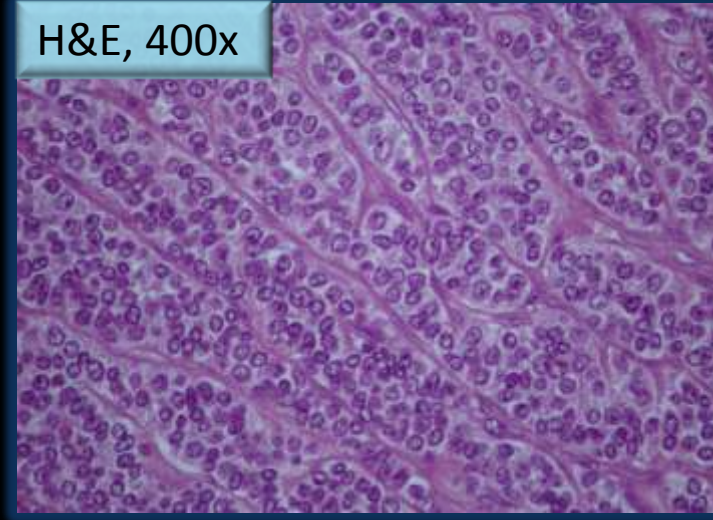


Case 2

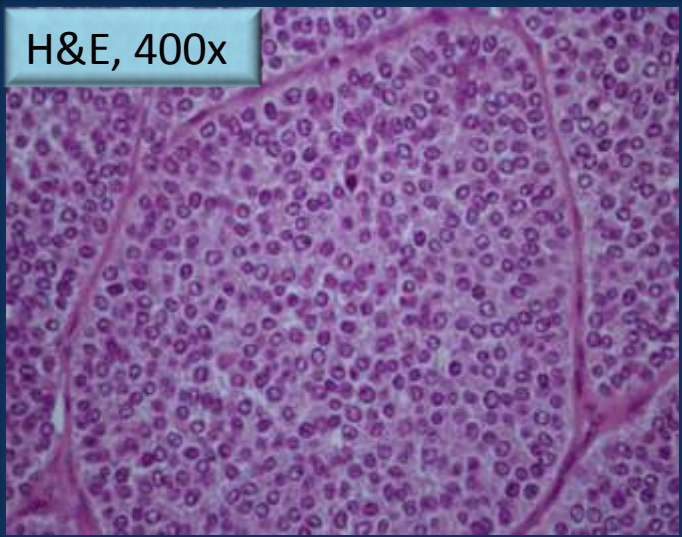
H&E, 400x



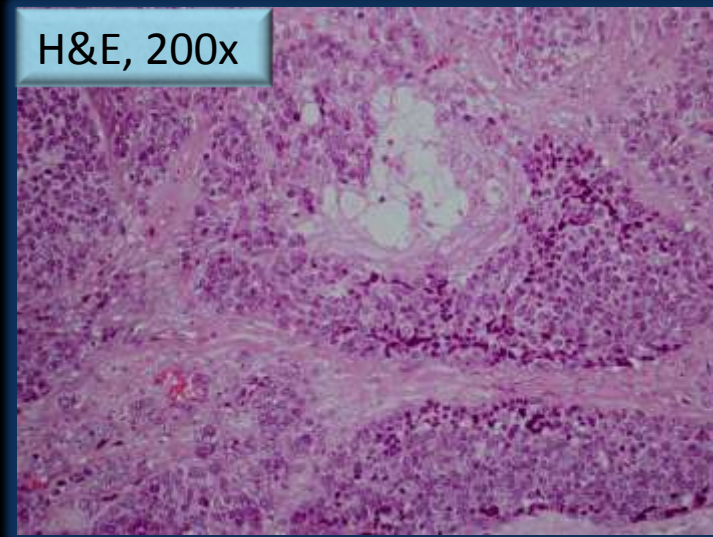
H&E, 400x



H&E, 400x

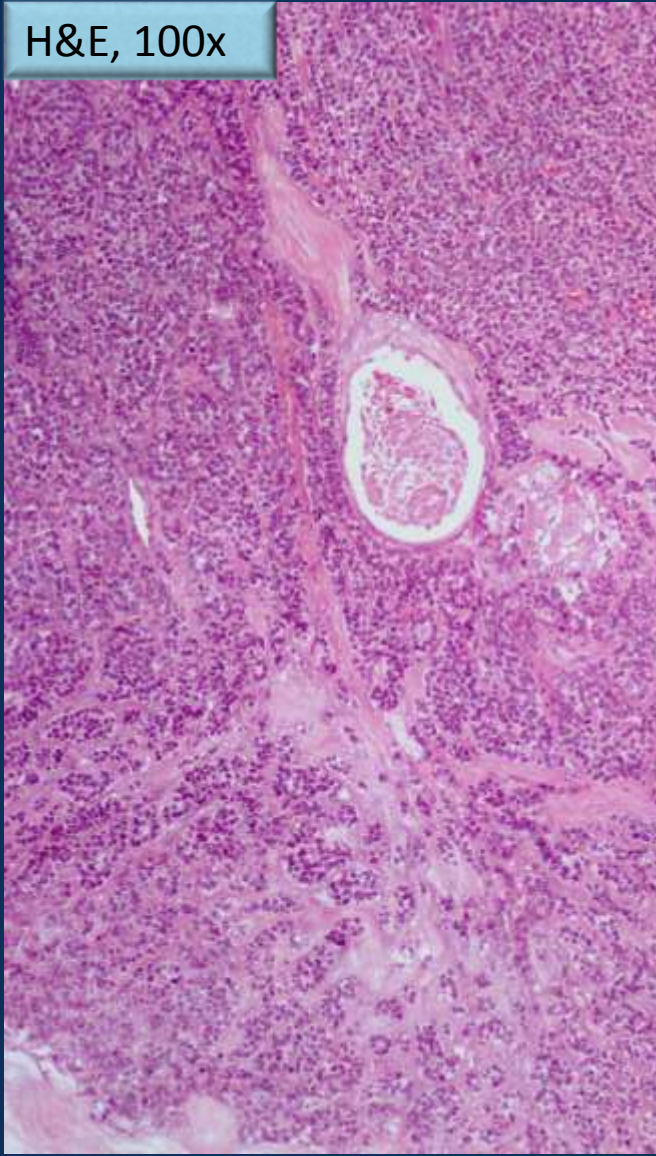


H&E, 200x

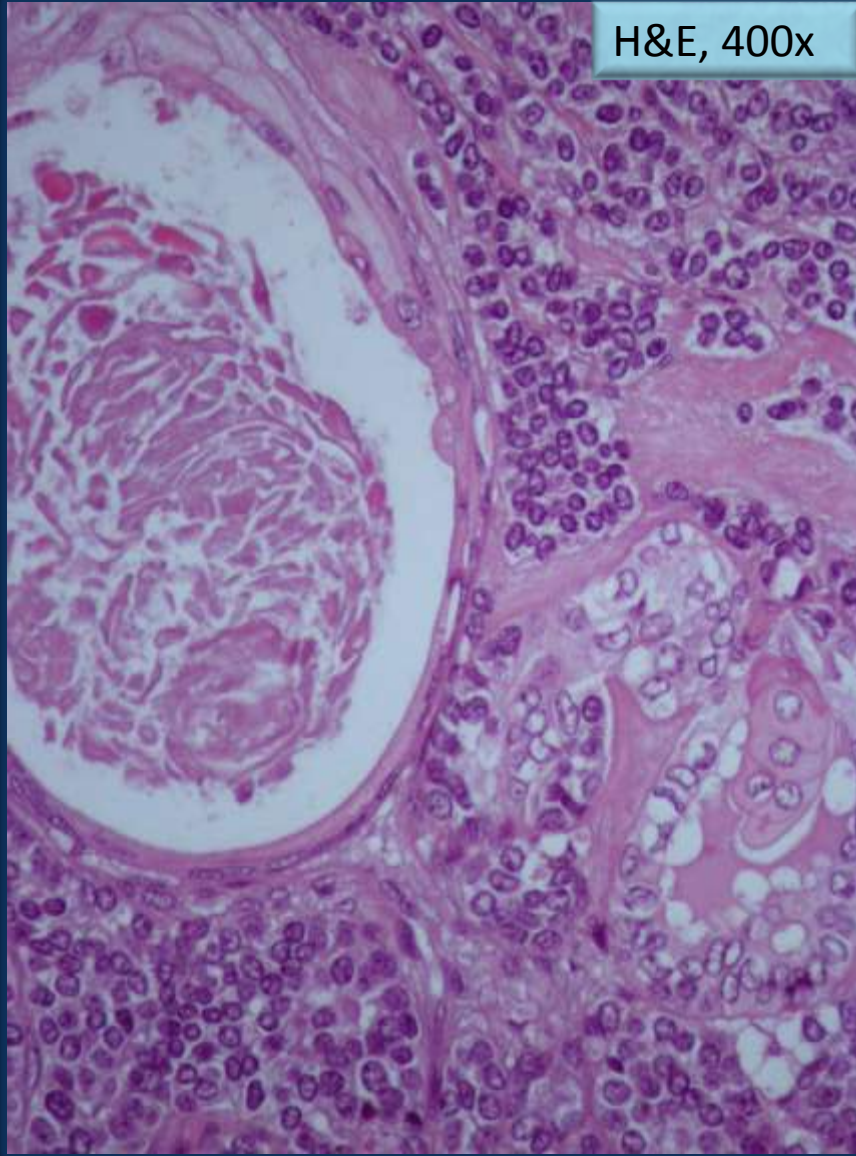


Case 2

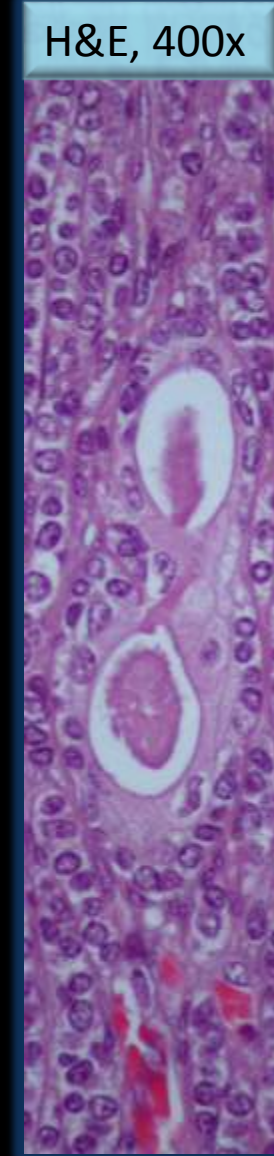
H&E, 100x



H&E, 400x

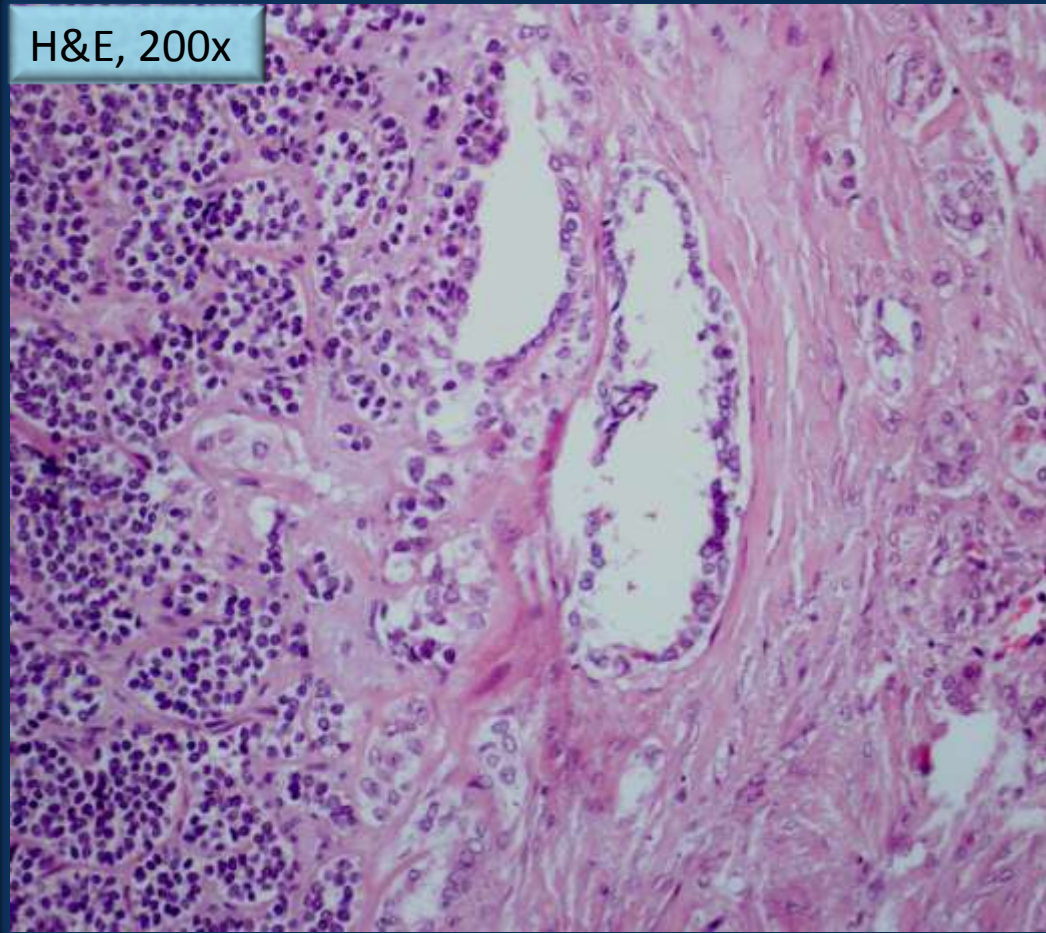


H&E, 400x

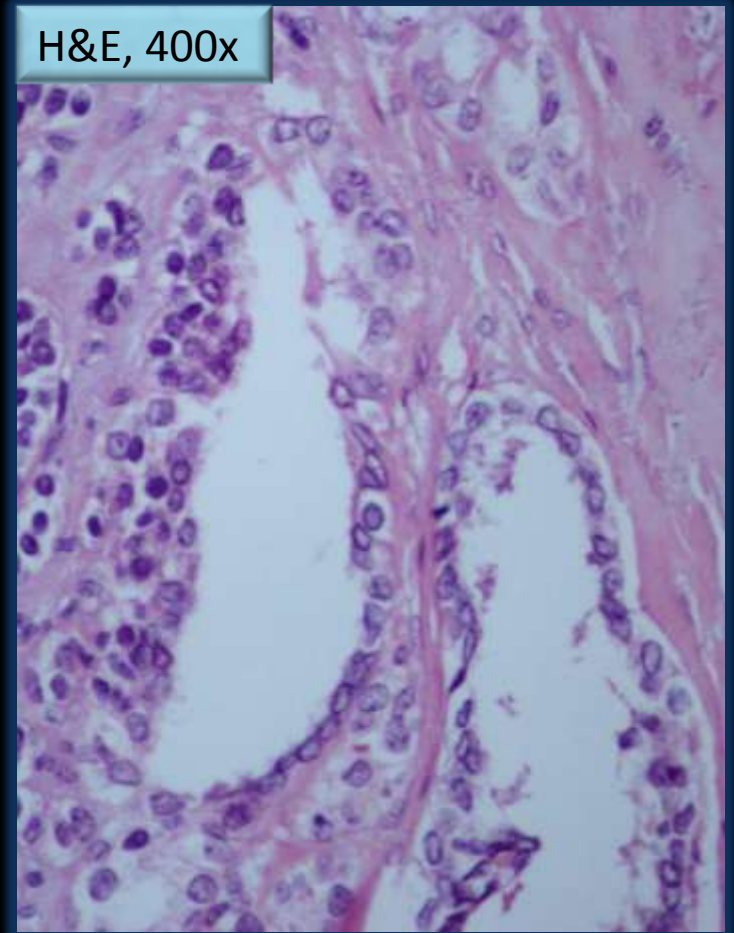


Case 2

H&E, 200x

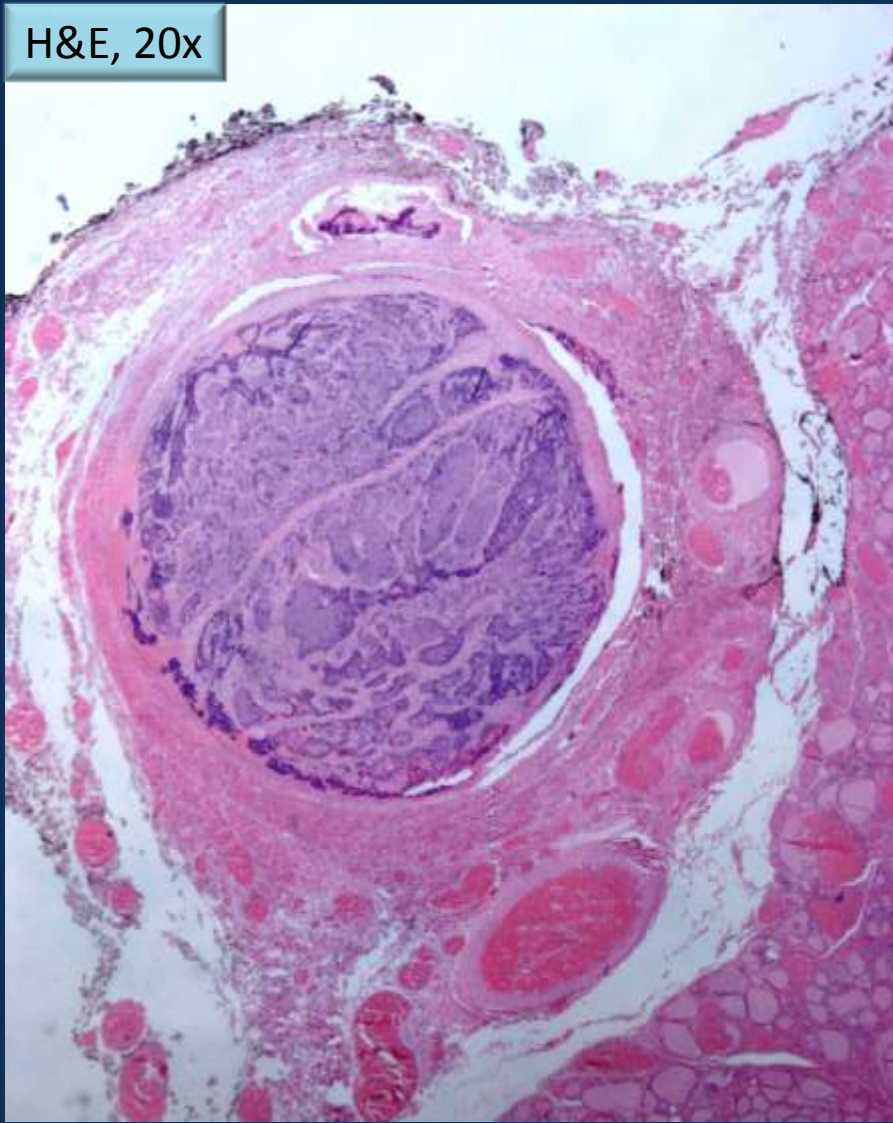


H&E, 400x

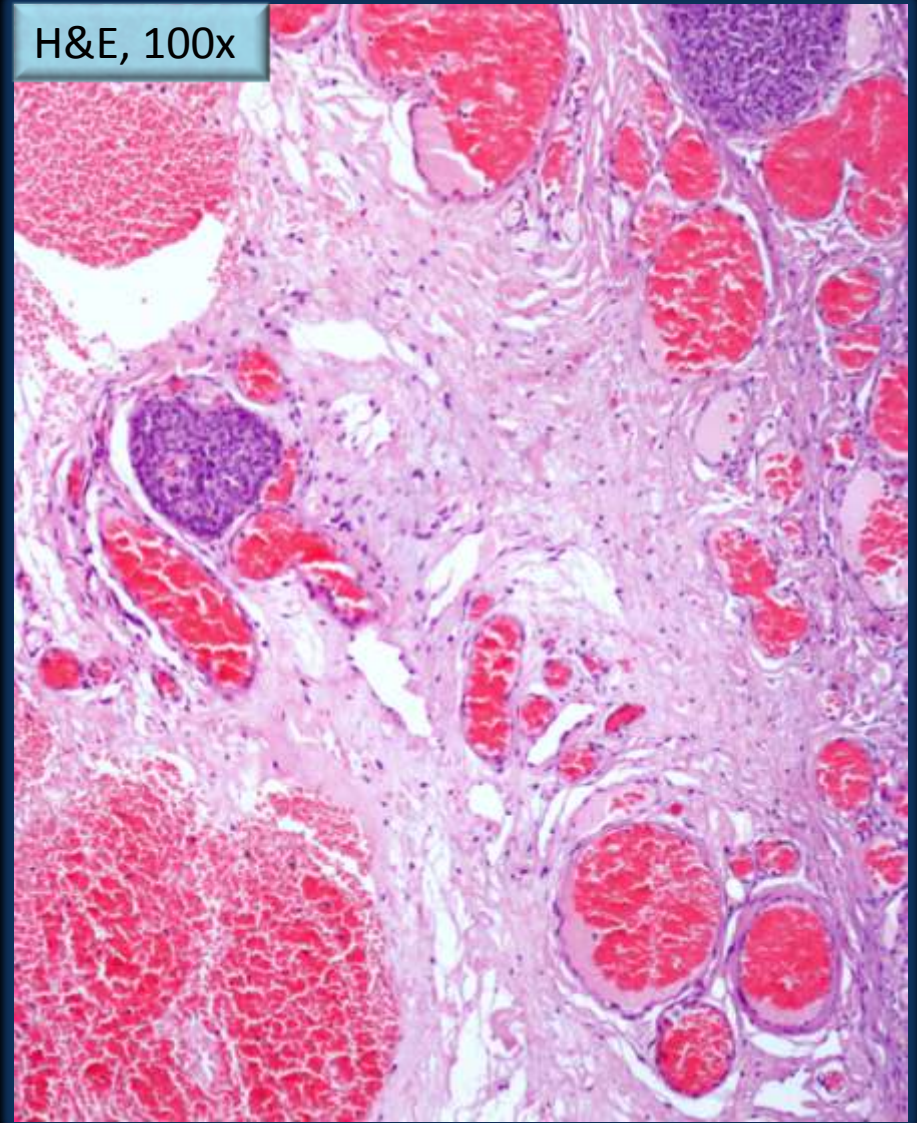


Case 2

H&E, 20x



H&E, 100x



?

? PTC foci and poorly differentiated carcinoma

? PTC foci and small cell medullary carcinoma

? CASTLE

? Metastasis

? Other...

What to do?

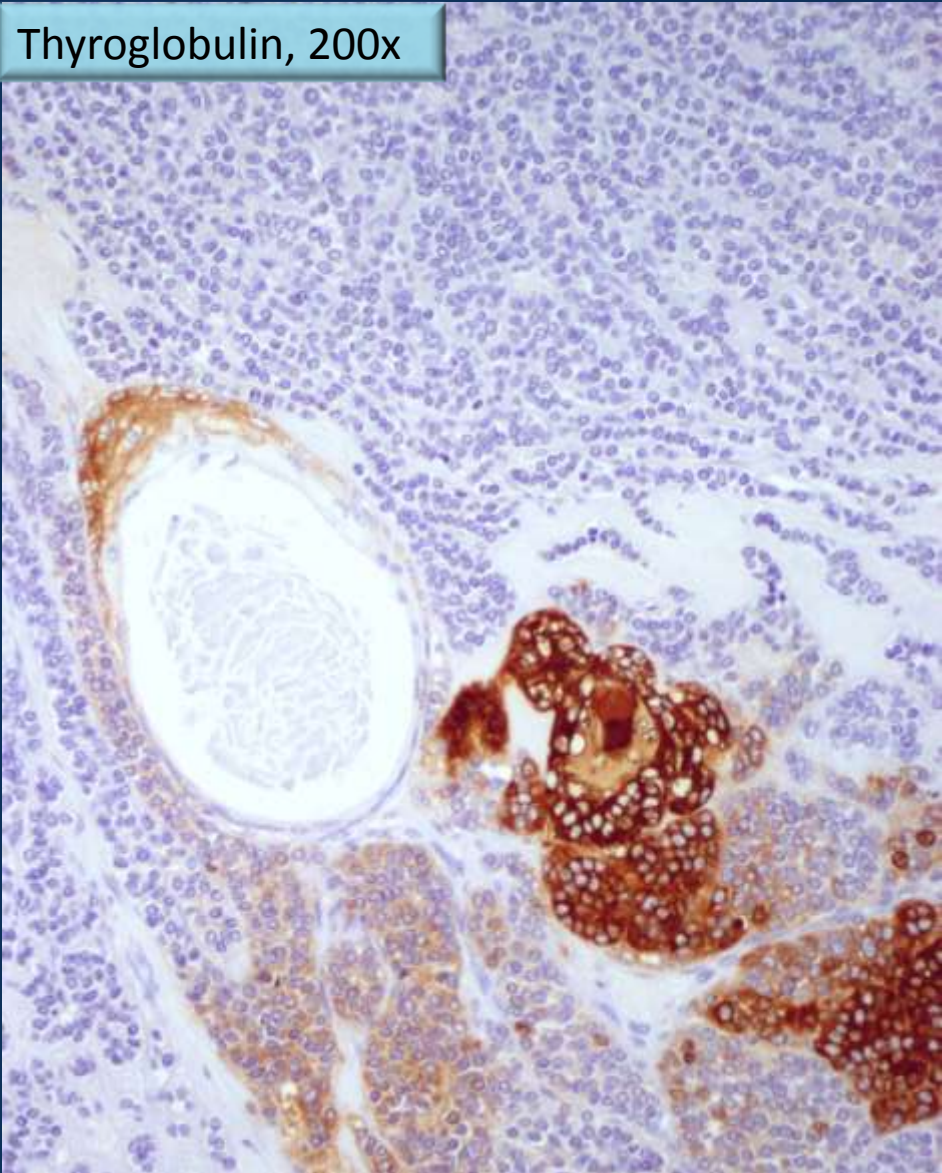
Thyroglobulin

Calcitonin

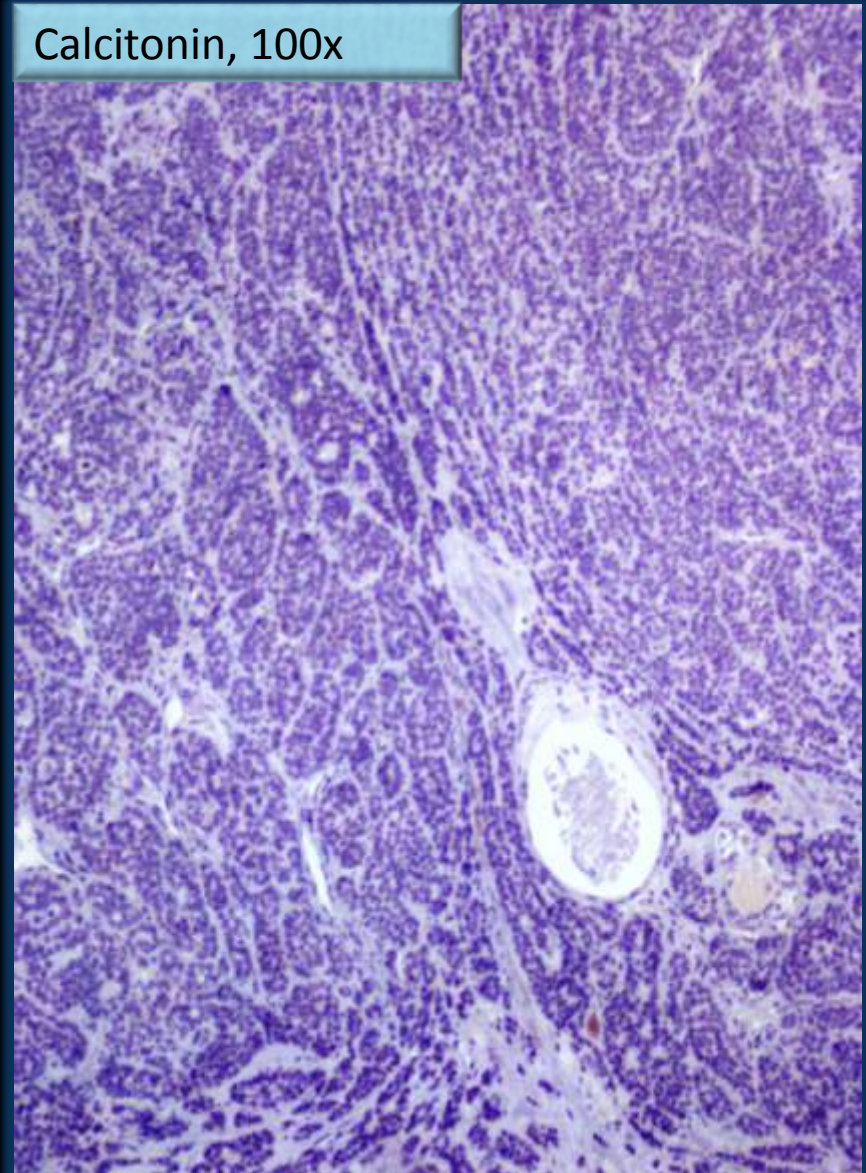
TTF-1

Case 2

Thyroglobulin, 200x

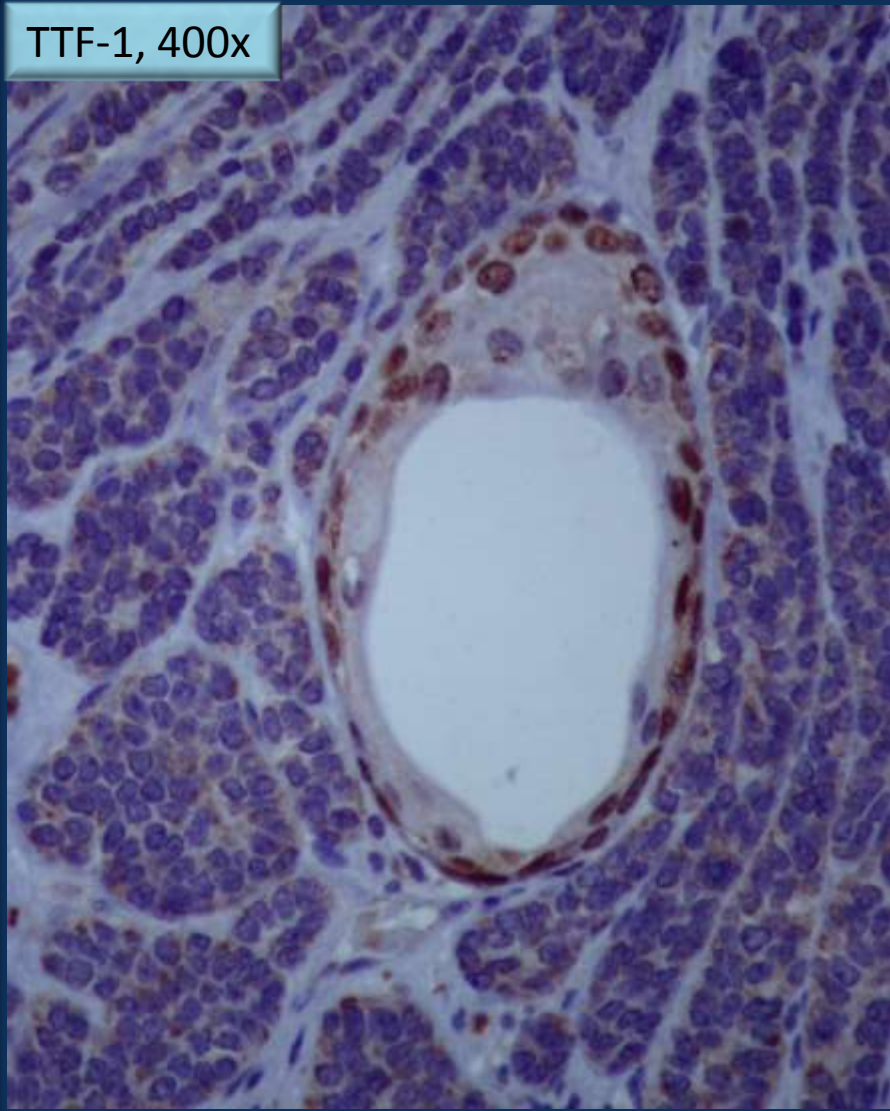


Calcitonin, 100x

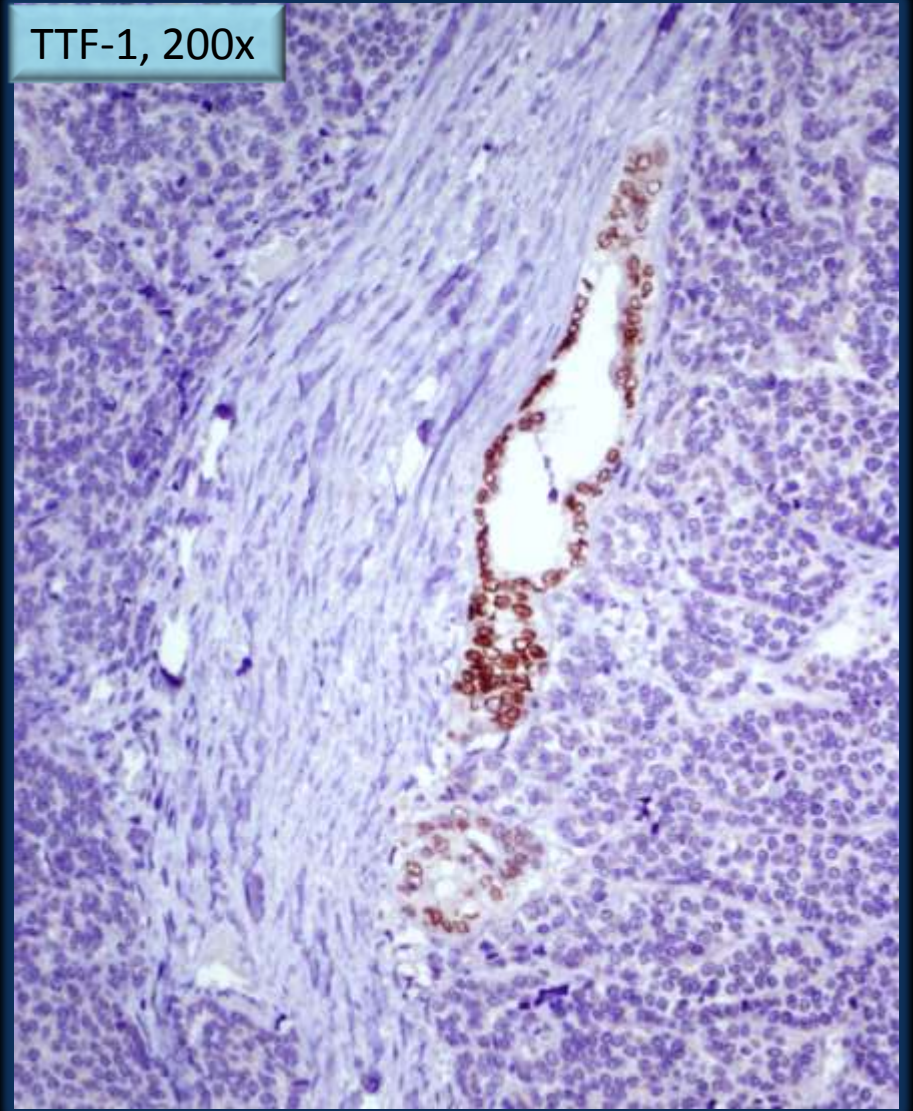


Case 2

TTF-1, 400x

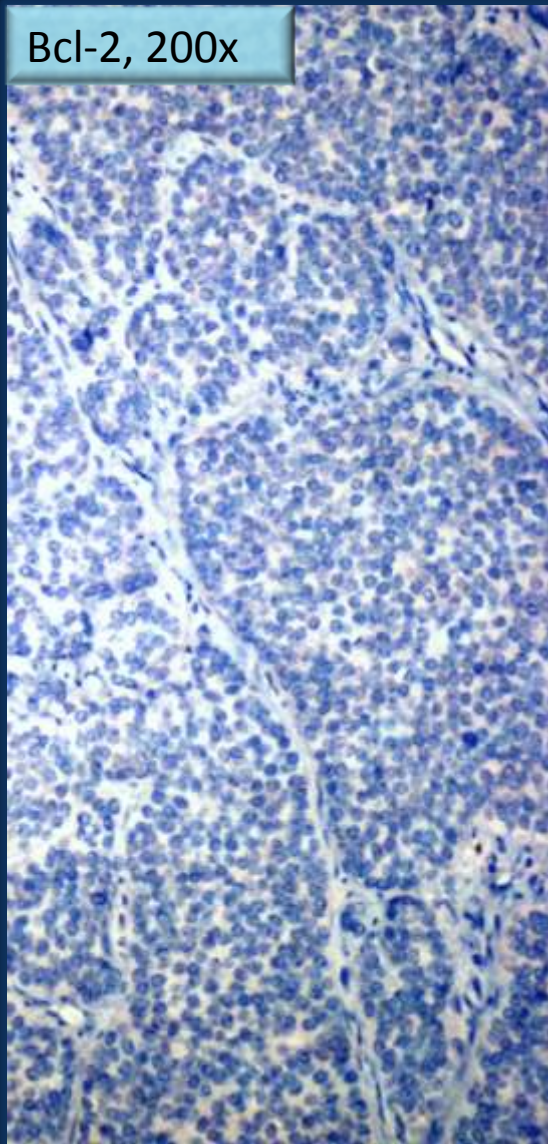


TTF-1, 200x

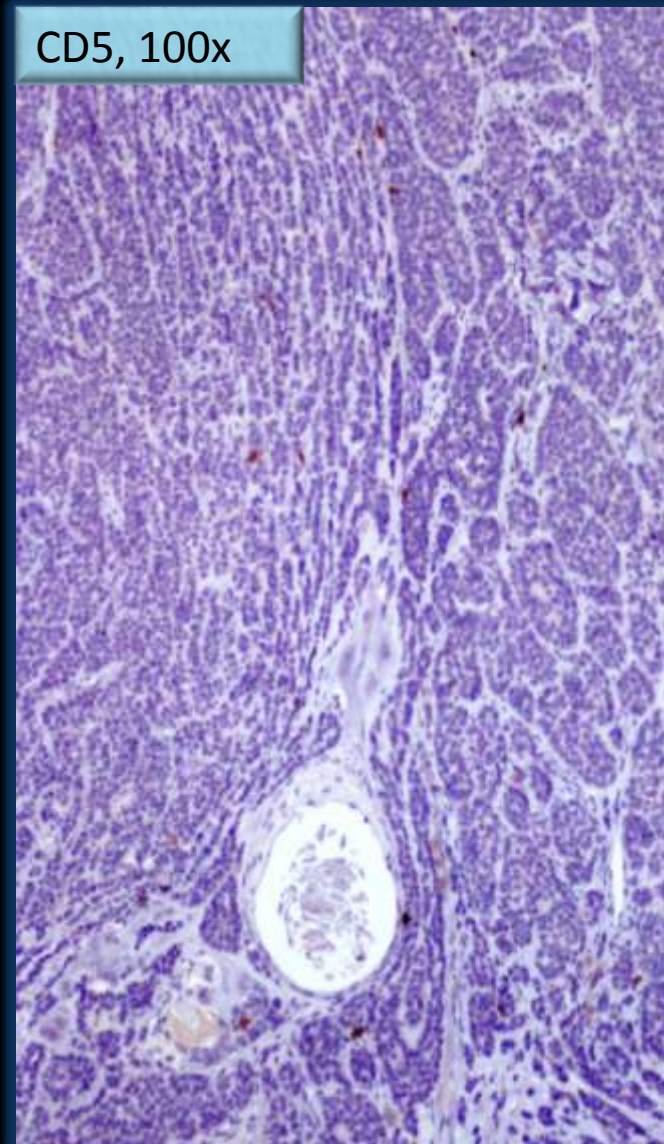


Case 2

Bcl-2, 200x



CD5, 100x



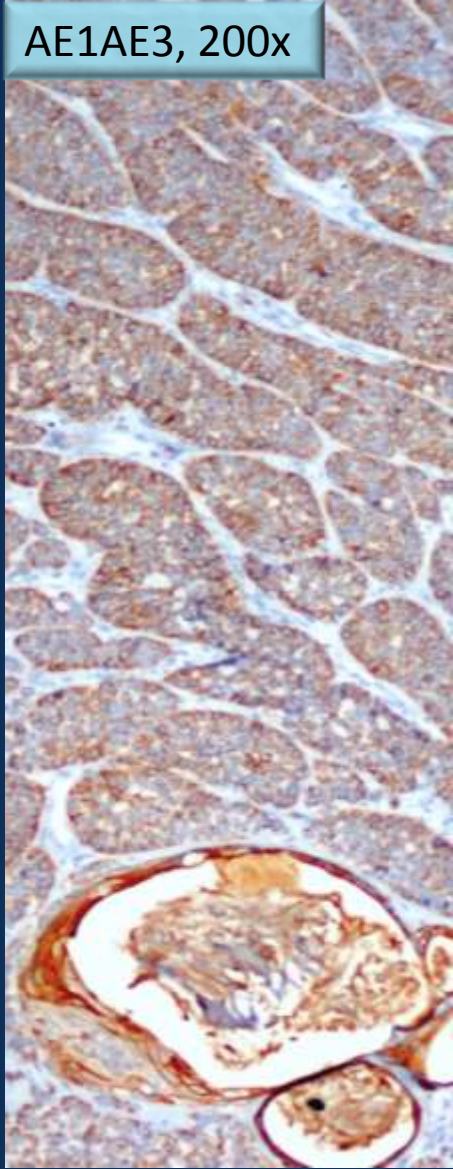
And now?

Small cell carcinoma?

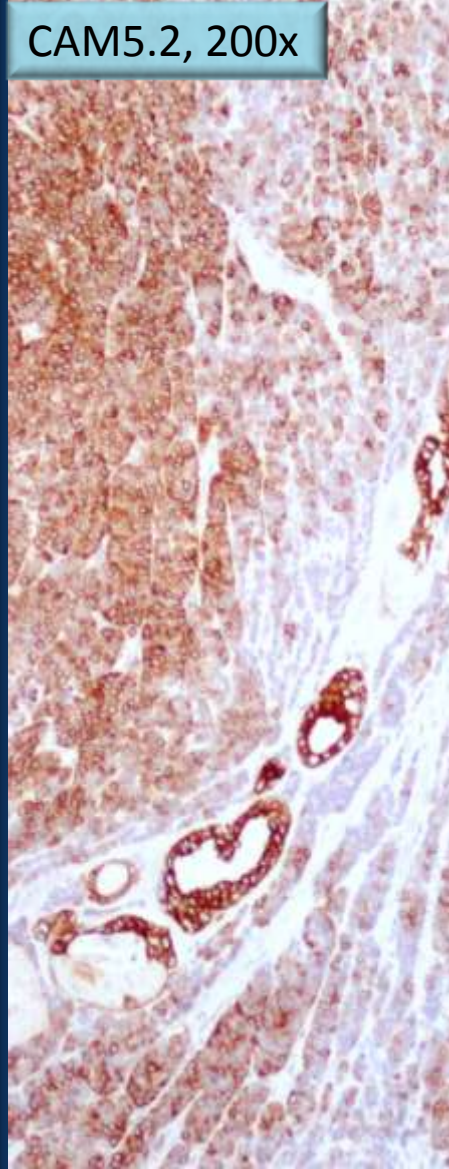
In thyroid?

Case 2

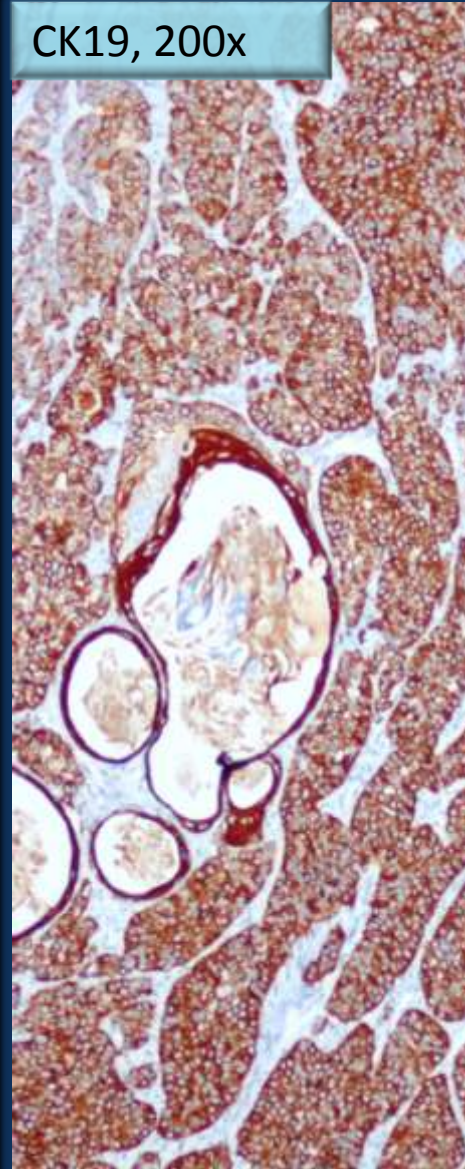
AE1/AE3, 200x



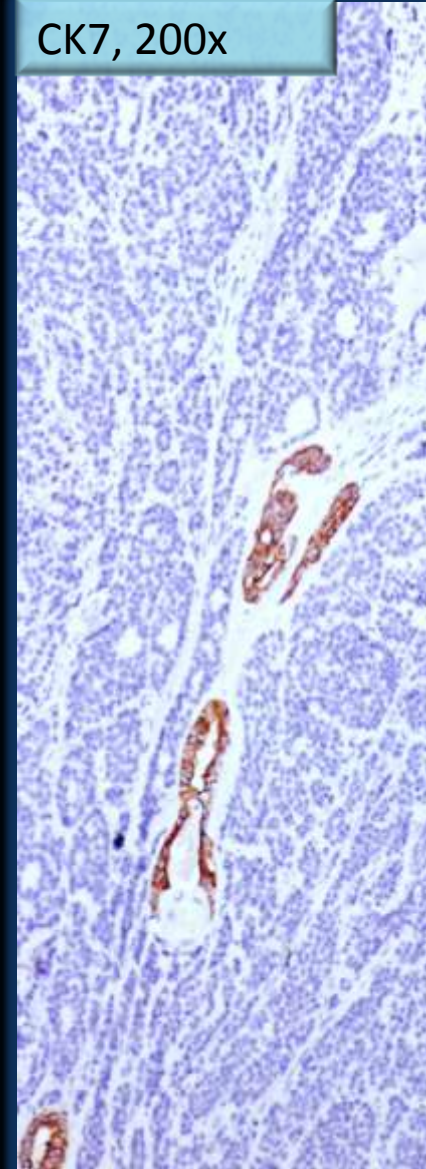
CAM5.2, 200x



CK19, 200x

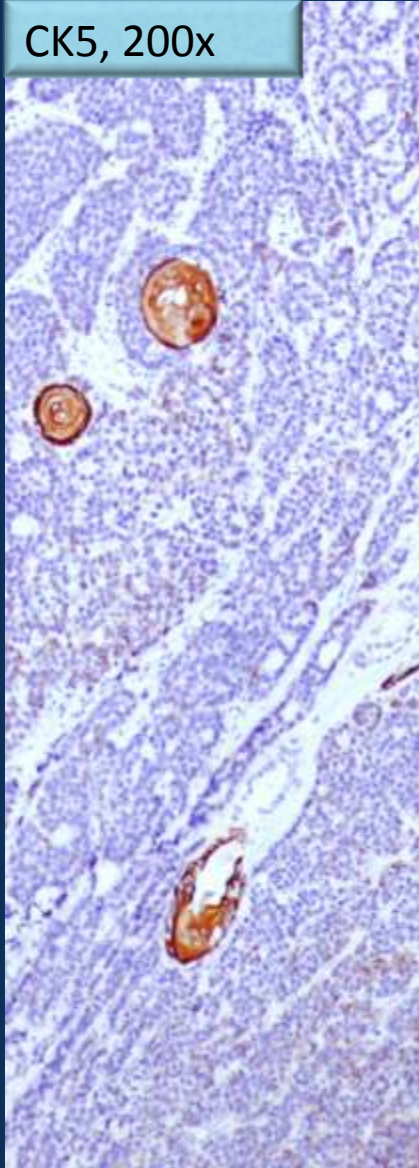


CK7, 200x

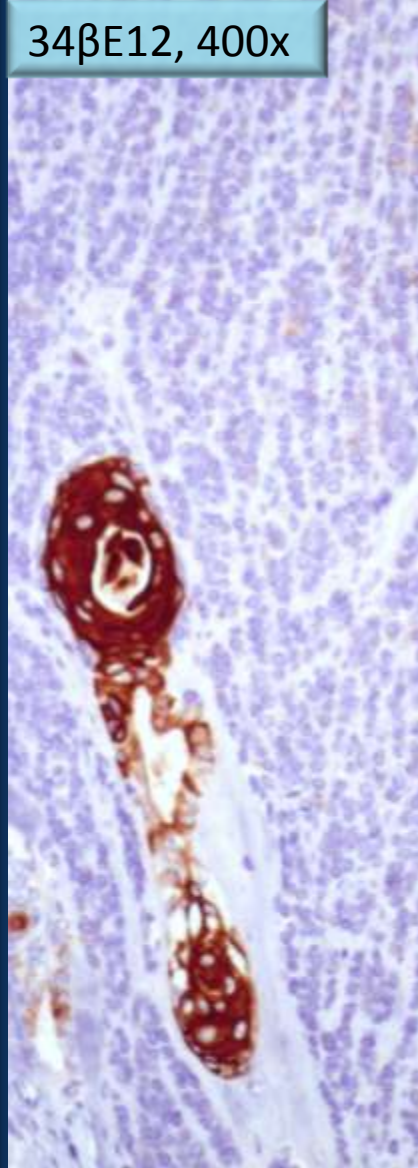


Case 2

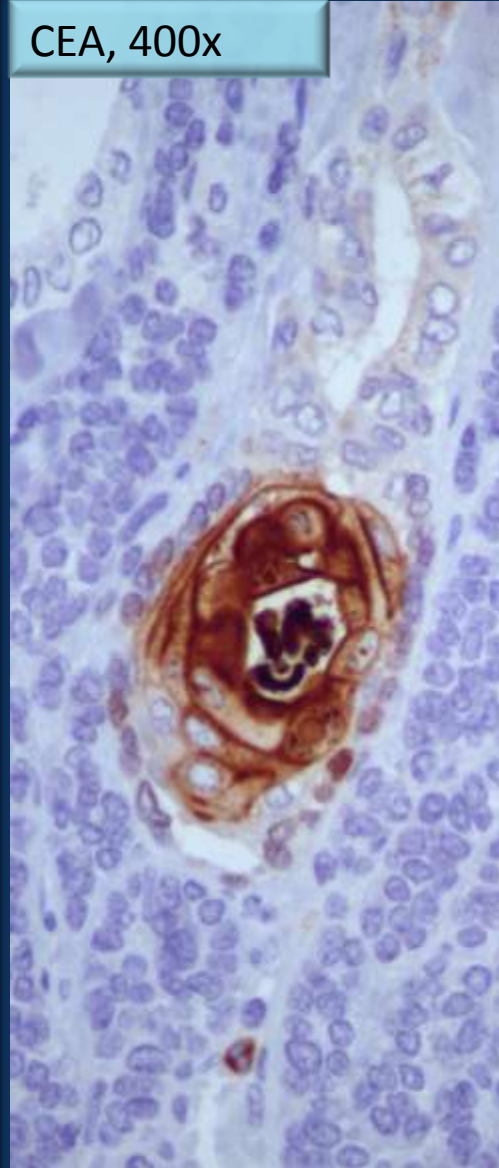
CK5, 200x



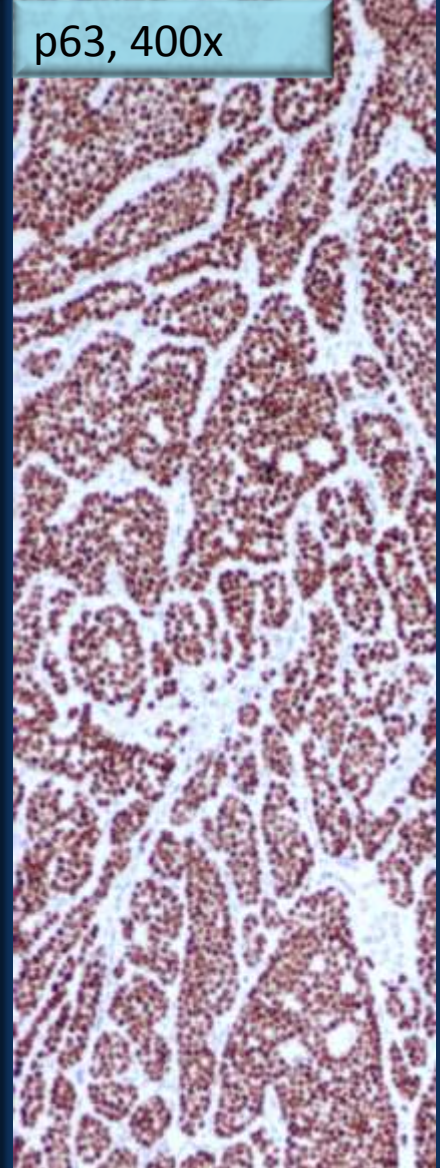
34βE12, 400x



CEA, 400x

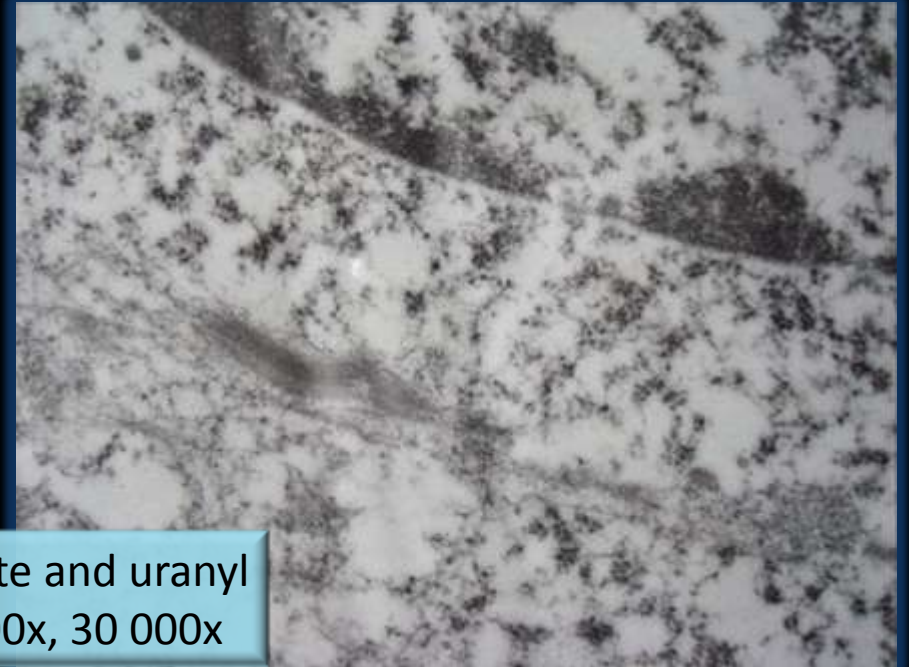
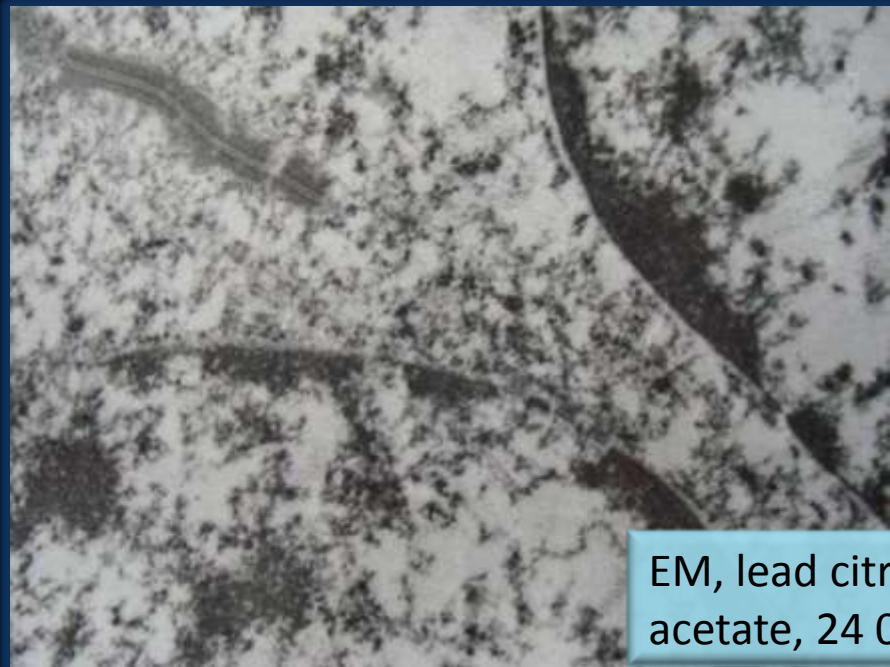
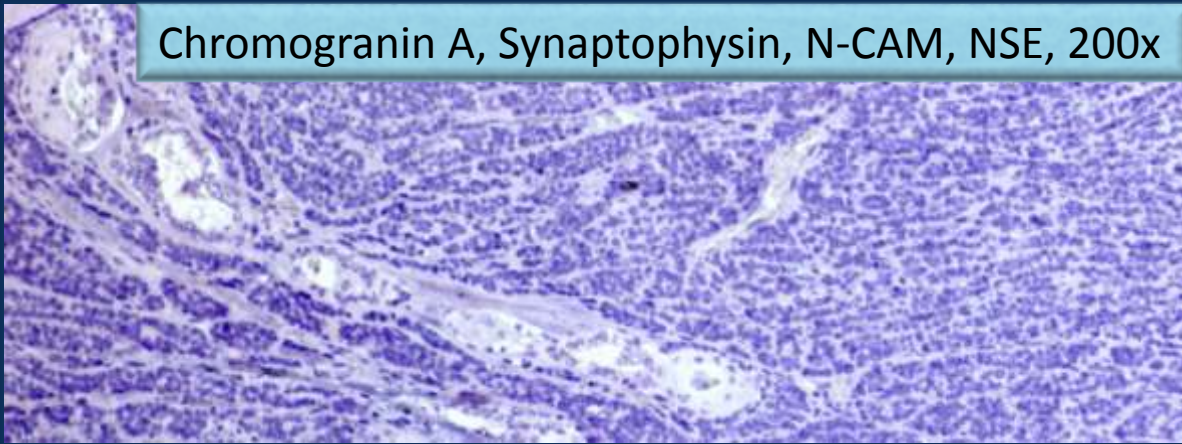


p63, 400x



Case 2

Chromogranin A, Synaptophysin, N-CAM, NSE, 200x



EM, lead citrate and uranyl acetate, 24 000x, 30 000x

Case 2

Immunohistochemistry panel

| PRIMARY ANTIBODY | Tumor |
|---|-------|
| Cytokeratins AE1/AE3 | + |
| Cytokeratin 34 β E12 | - |
| Cytokeratin CAM 5.2 | + |
| Cytokeratin 5, 7, 20 | - |
| Cytokeratin 19 | + |
| TTF-1 | - |
| Thyroglobulin | - |
| Calcitonin | - |
| Chromogranin, Synaptophysin, N-CAM, NSE | - |
| p63 | + |
| Bcl-2 | - |
| CEA | - |
| CD5 | - |
| C-KIT | + |
| Ki-67 | <1% |

Diagnosis

Small cell (basaloid) thyroid carcinoma

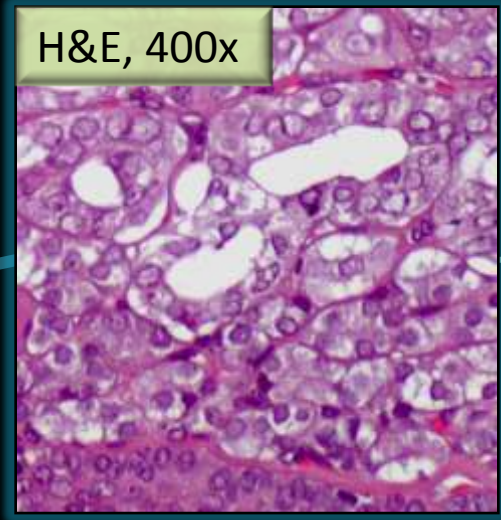
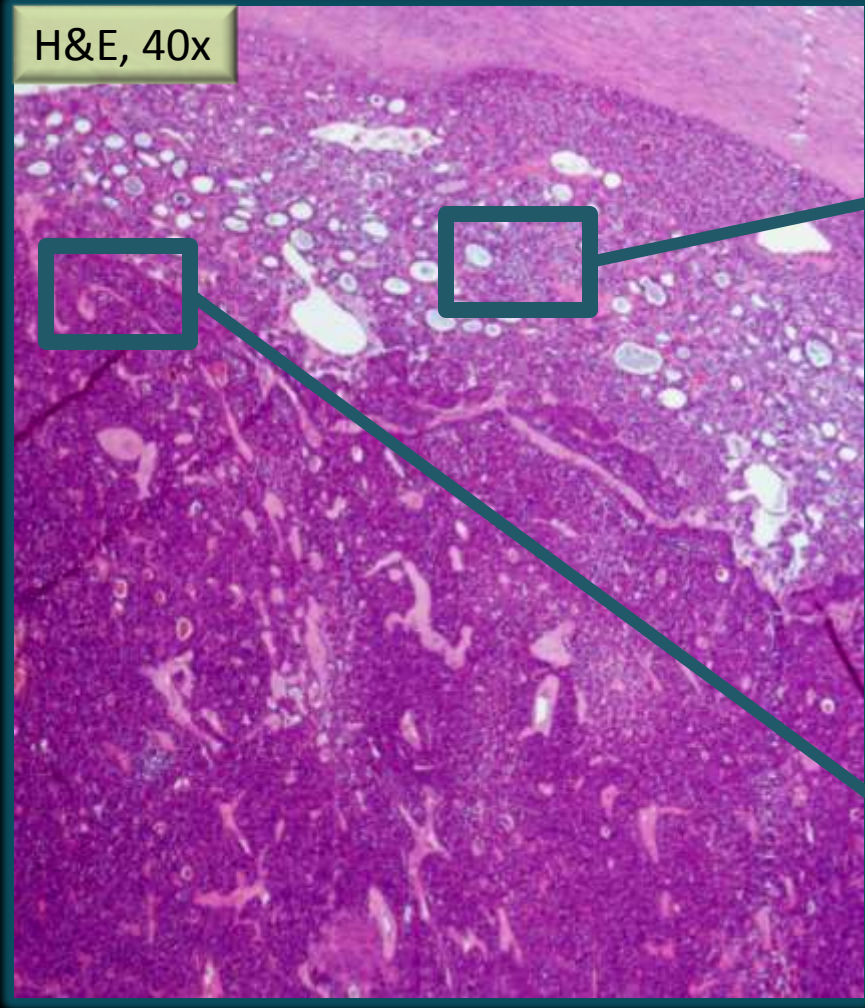
Notice: no neuroendocrine differentiation

Small-Cell (Basaloid) Thyroid Carcinoma: A Neoplasm With a Solid Cell Nest Histogenesis?

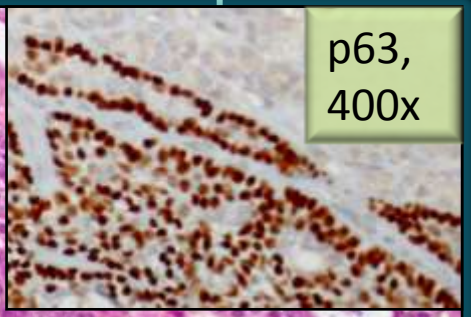
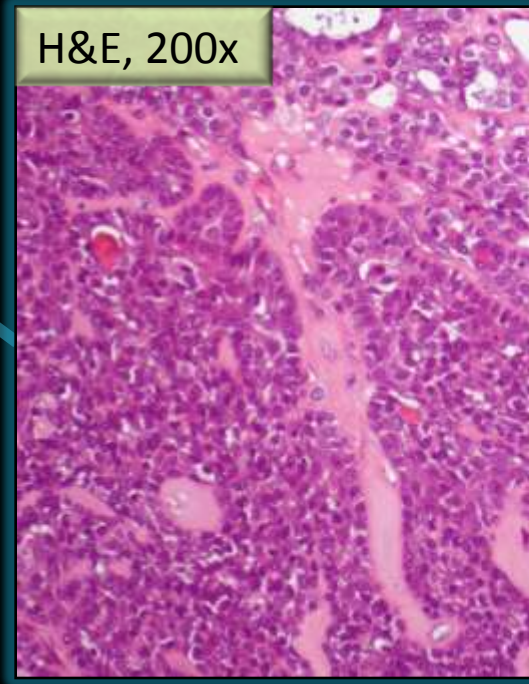
João Cruz, MD, MSc¹, Catarina Eloy, MD^{1,3,4},
José Maria Aragüés, MD², João Vinagre, BSc^{3,4,6},
and Manuel Sobrinho-Simões, MD, PhD^{1,3,4}

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DOI: 10.1177/1066896911400120
<http://ijs.sagepub.com>
SAGE

Case 3



N-RAS Q61R



, 70-year-old, thyroid nodule of

Diagnosis

Basaloid tumor with solid cell nests features

**Tumor-in-Tumor of the Thyroid
With Basaloid Differentiation:
A Lesion With a Solid Cell Nest
Neoplastic Component?**

Catarina Eloy, MD^{1,2,5}, João Vinagre, BSc^{2,3,5}, José Cameselle-Teijeiro, MD, PhD⁴,
Maria Emilia Paiva, MD¹, Paula Soares, BSc, PhD^{2,5},
and Manuel Sobrinho-Simões, MD, PhD^{1,2,5}

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DOI: 10.1177/1066896910393506
<http://ijsp.sagepub.com>

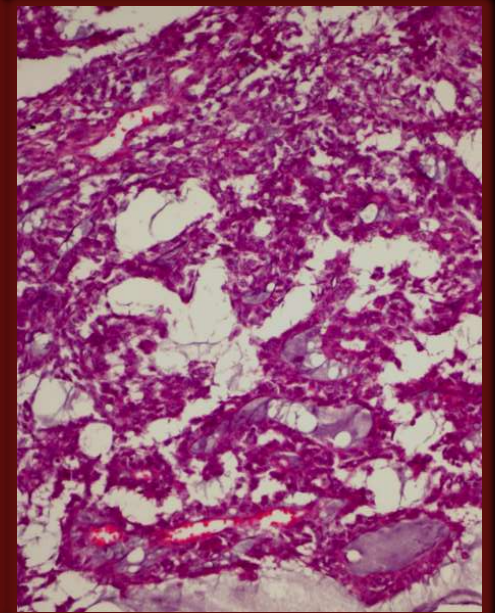
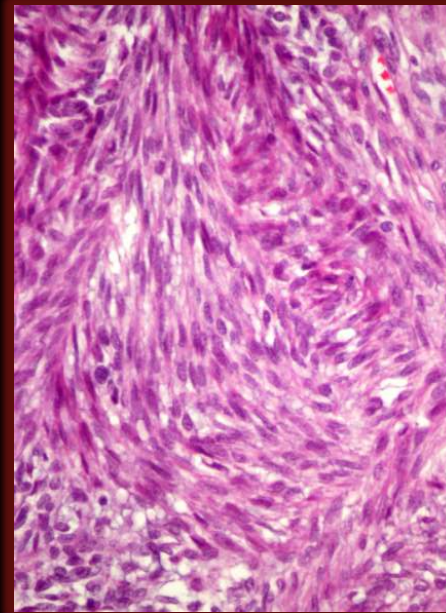

Tumors of the Neck Showing Thymic or Related Branchial Pouch Differentiation: A Unifying Concept

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

Ectopic
hamartomatous
thymoma
Ectopic cervical

?

Small cell (basaloid) thyroid
carcinoma



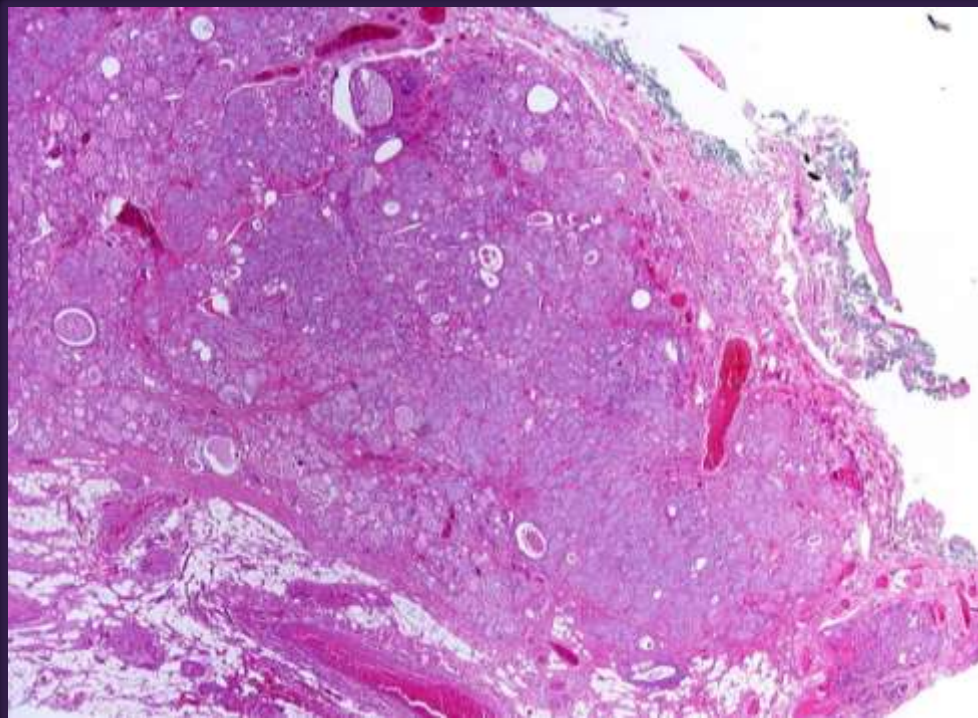
Discussion

Images in Pathology

“Giant” Solid Cell Nest 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 2
June 2009 208-209
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10.1177/1043986209331747
<http://ijsp.sagepub.com>



Human Pathology (2009) 40, 1020–1033



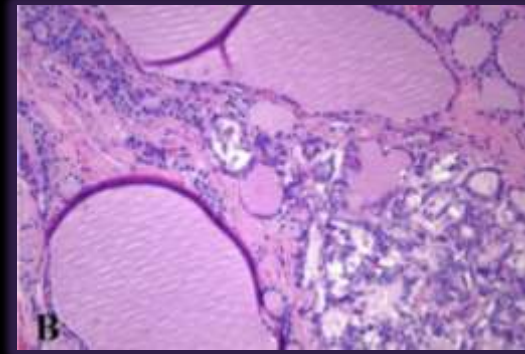
Human
PATHOLOGY

www.elsevier.com/locate/humpath

Case study

BRAF mutation in solid cell nest hyperplasia associated with papillary thyroid carcinoma. A precursor lesion?^{1,2}

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



Tumor-in-Tumor of the Thyroid With Basaloid Differentiation: A Lesion With a Solid Cell Nest Neoplastic Component?

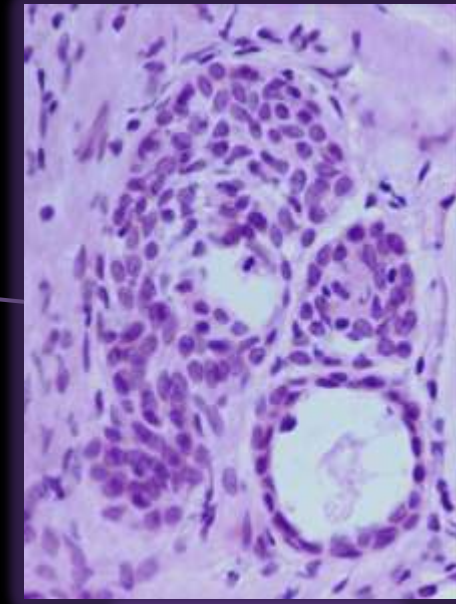
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DOI: 10.1177/1043986209331747
<http://ijsp.sagepub.com>
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Catarina Eloy, MD^{1,2,5}, João Vinagre, BSc^{2,3,5}, José Cameselle-Teijeiro, MD, PhD⁴,
Maria Emilia Paiva, MD¹, Paula Soares, BSc, PhD^{2,5},
and Manuel Sobrinho-Simões, MD, PhD^{1,2,5}

Discussion

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

PATSE

PTC Associated Tumors
with

Squamoid morphology
P63 positive cells
PTC associated

Solid cell
nests

**Small cell (basaloid)
thyroid carcinoma
Basaloid tumor with solid
cell nests features**