

# Hospital Fernando Fonseca Department of Pathology

Thyroid tumour in a young male

B4383/00

Porto 18/19 November 2005

# B4383/00 History

Male, athlete, 23 years old, in good health, whilst playing judo, noticed a lump on the right side of the neck.

Clinical examination revealed a solid nodule on the thyroid, about 5cm in diameter.

Thyroid function tests, chest-xray, abdominal ecography were all normal.

CAT scan confirmed solid nodule in the right lobe of thyroid without enlarged nodes.

# B4383/00 History

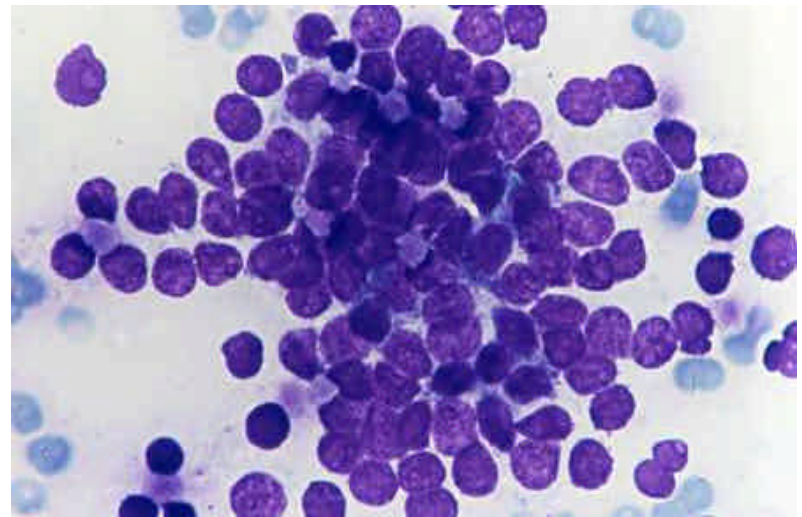
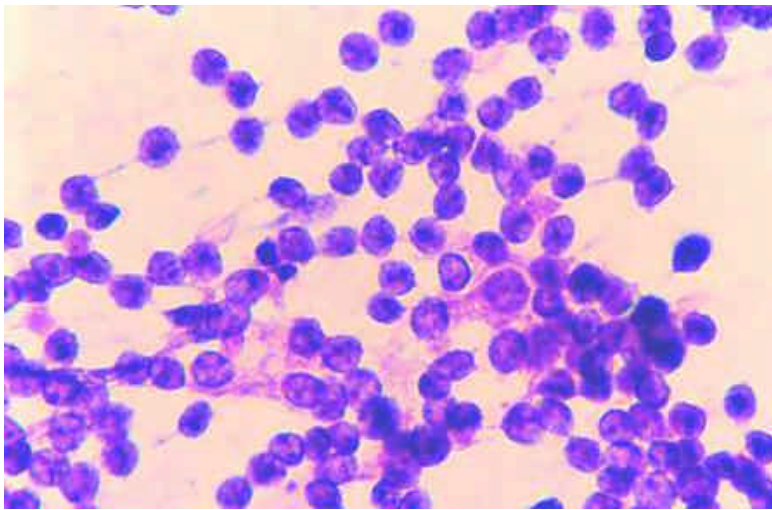
Family history negative

Fine needle aspiration cytology was performed

The patient was submitted to partial thyroidectomy

# B4383/00 Cytology

Cellular specimen consistent with follicular tumour. ? Malignant.



# B4383/00 Macroscopic Exam.

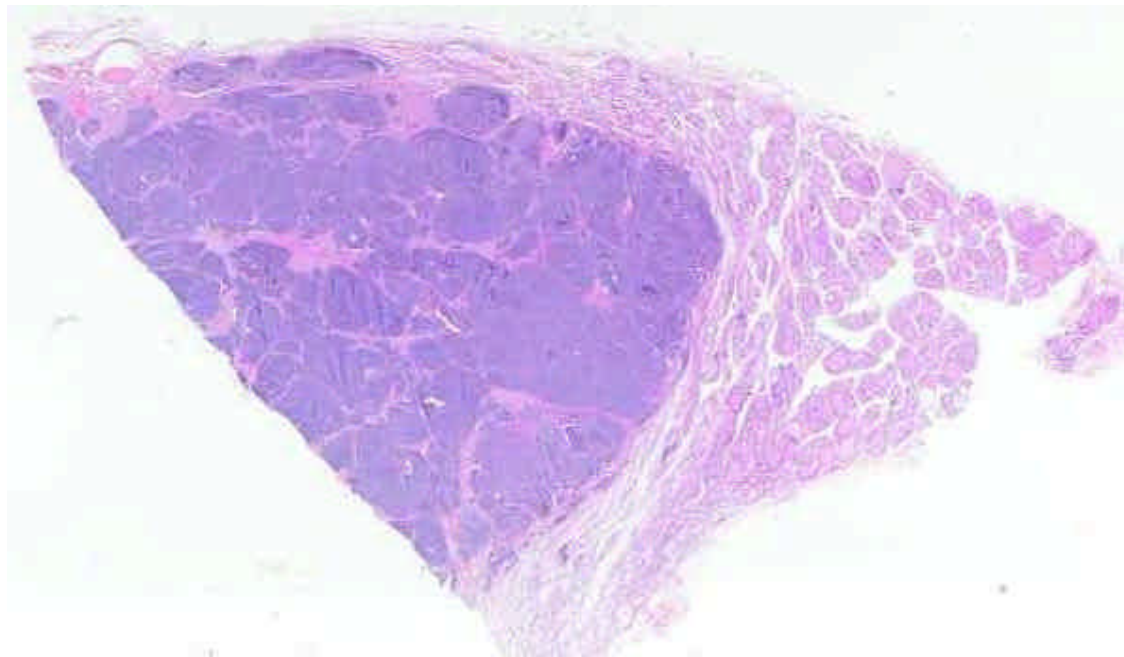
Right hemithyroidectomy, 38gr, 5.8x4x3cm

Capsule apparently intact and smooth.

Cut surface: solid, rubbery nodule, ill defined contour, whitish grey colour with yellowish streaks, 5cm maximum diameter, occupying most of the specimen, extending focally to the surgical margin.

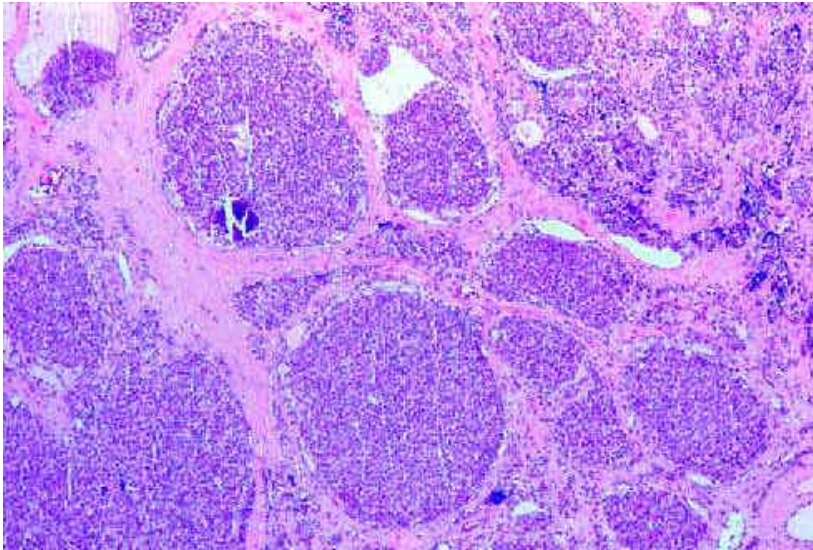
# B4383/00 Microscopic Exam.

Overview with margin. Solid cellular nests separated by fibrovascular septa

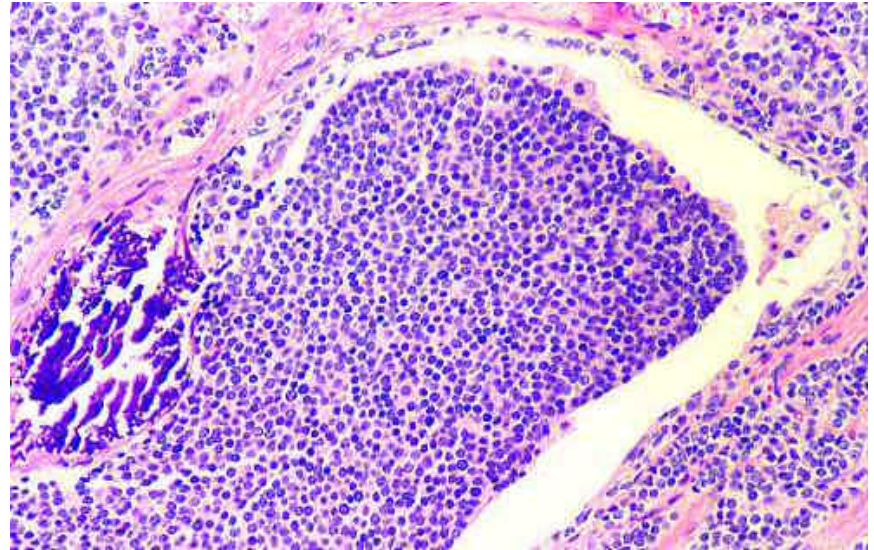


# B4383/00 Microscopic Exam.

Overview general architecture

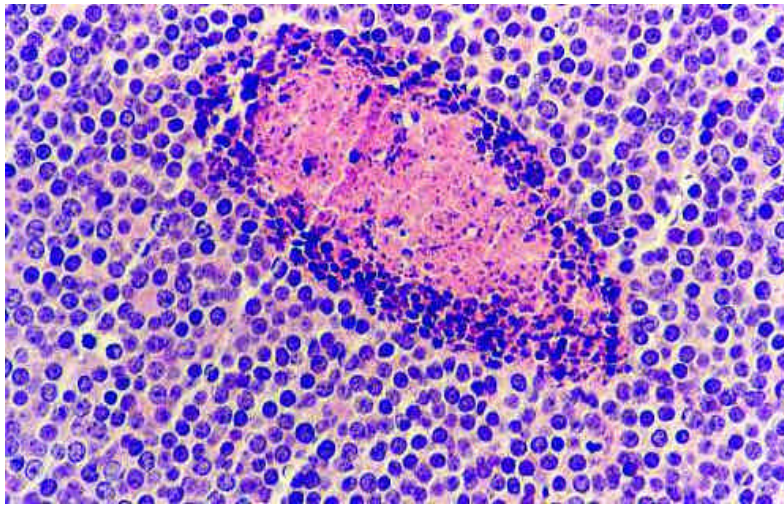


Invasion of follicles. Microcalcification

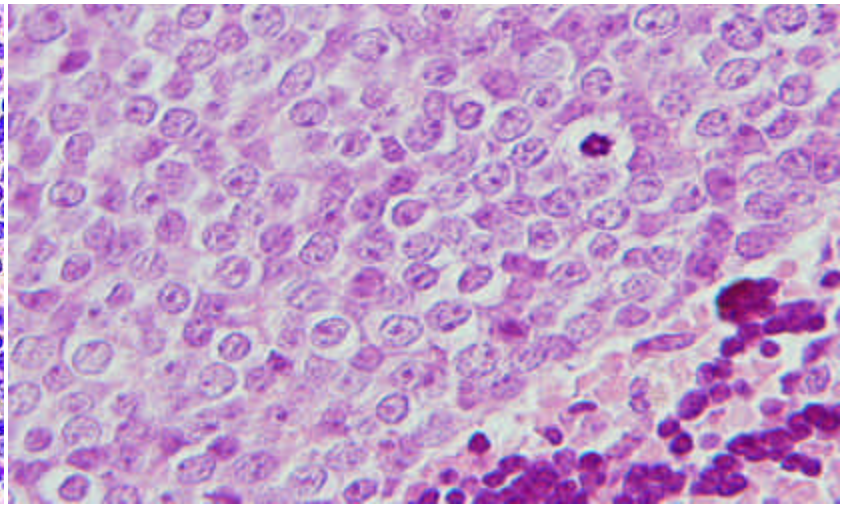


# B4383/00 Microscopic Exam.

Comedo necrosis



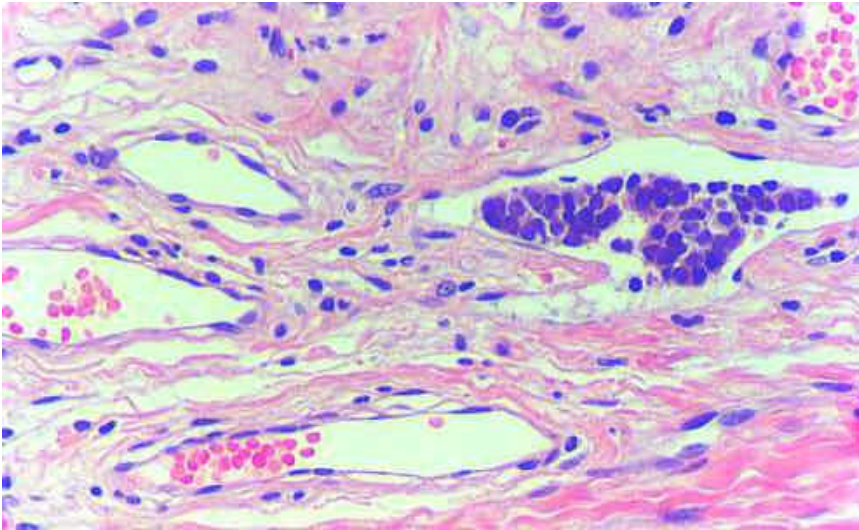
Dense cellularity, Mitosis, Necrosis



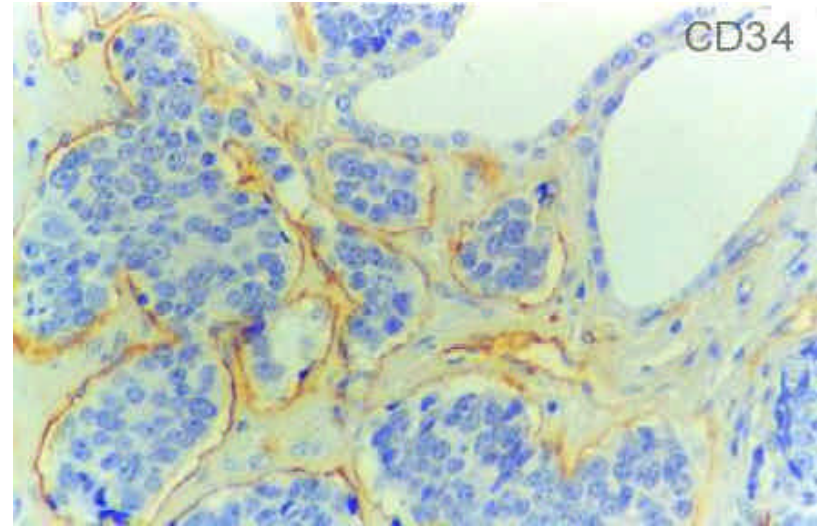


# B4383/00 Microscopic Exam.

Vascular invasion



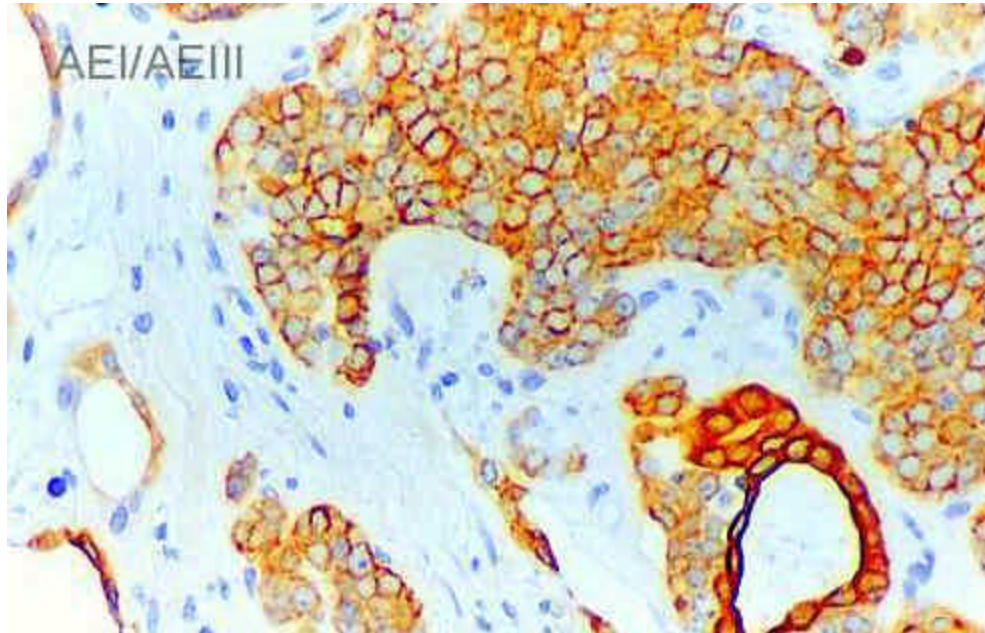
H+E



CD34

# B4383/00 Microscopic Exam.

AEI/AEIII: Positive tumour cells and residual follicles



# B4383/00 Immunohistochemistry

- Positive: AE1/AE3; EMA
- Focally positive (IPATIMUP) :  
synaptophysin; Ki-67 (5-10%)
- Negative: LCA; Thyroglobulin; Calcitonin;  
NSE; Chromogranin; Vimentin; CD34;  
CEA; Keratins 7 and 20; TTF1; BCL2;  
CyclinD1

# B4383/00 Differential Diagnosis

- Poorly differentiated carcinoma (Insular)
- Neuroendocrine carcinoma
- Metastatic carcinoma- primary unknown

# B4383/00 Follow-up

Serum calcitonin was always normal.

Second surgery to complete thyroidectomy.

No further tumour identified after histological examination of the whole specimen.

All nodes (12 ) were negative.

Received radioactive iodine.

No genetic studies available.

# B4383/00 Follow-up

- Remains fit and well without evidence of metastases 5 ½ years later.

## References:

WHO Classification Tumours Endocrine Organs  
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Marchesi M. Et al. Chir. Ital. 1998;50;73-5

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