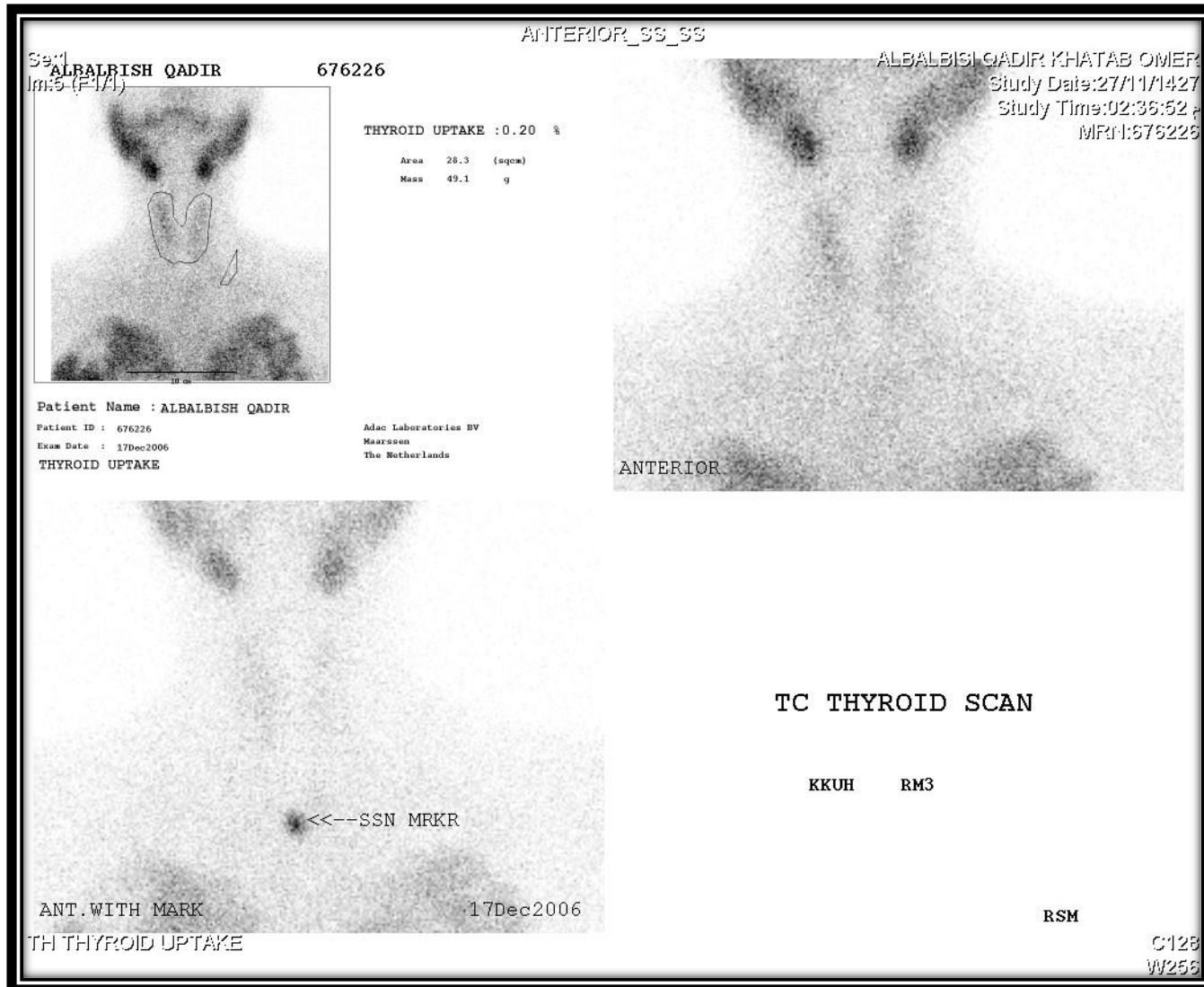


RAD 366

NUCLEAR MEDICINE

2019

Elevated T4 and suppressed TSH



Elevated T4 and suppressed TSH

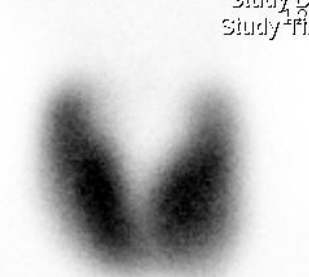

Se:1
Im:9 (F1/1)
SALHA ALSHAHRANI

ALSHAHRANI SALHA SAAD ABDULLAH
Study Date: 09/08/1426
Study Time: 12:57:57
MFN: 793268

793268

THYROID UPTAKE : 24.13 %

Area	0.0	(sqcm)
Mass	0.0	g




10 cm

Patient Name : SALHA ALSHAHRANI
Patient ID : 793268
Exam Date : 12Sep2005

Adac Laboratories BV
Maarsse
The Netherlands

Thyroid

THYROID UPTAKE



<-MARKER

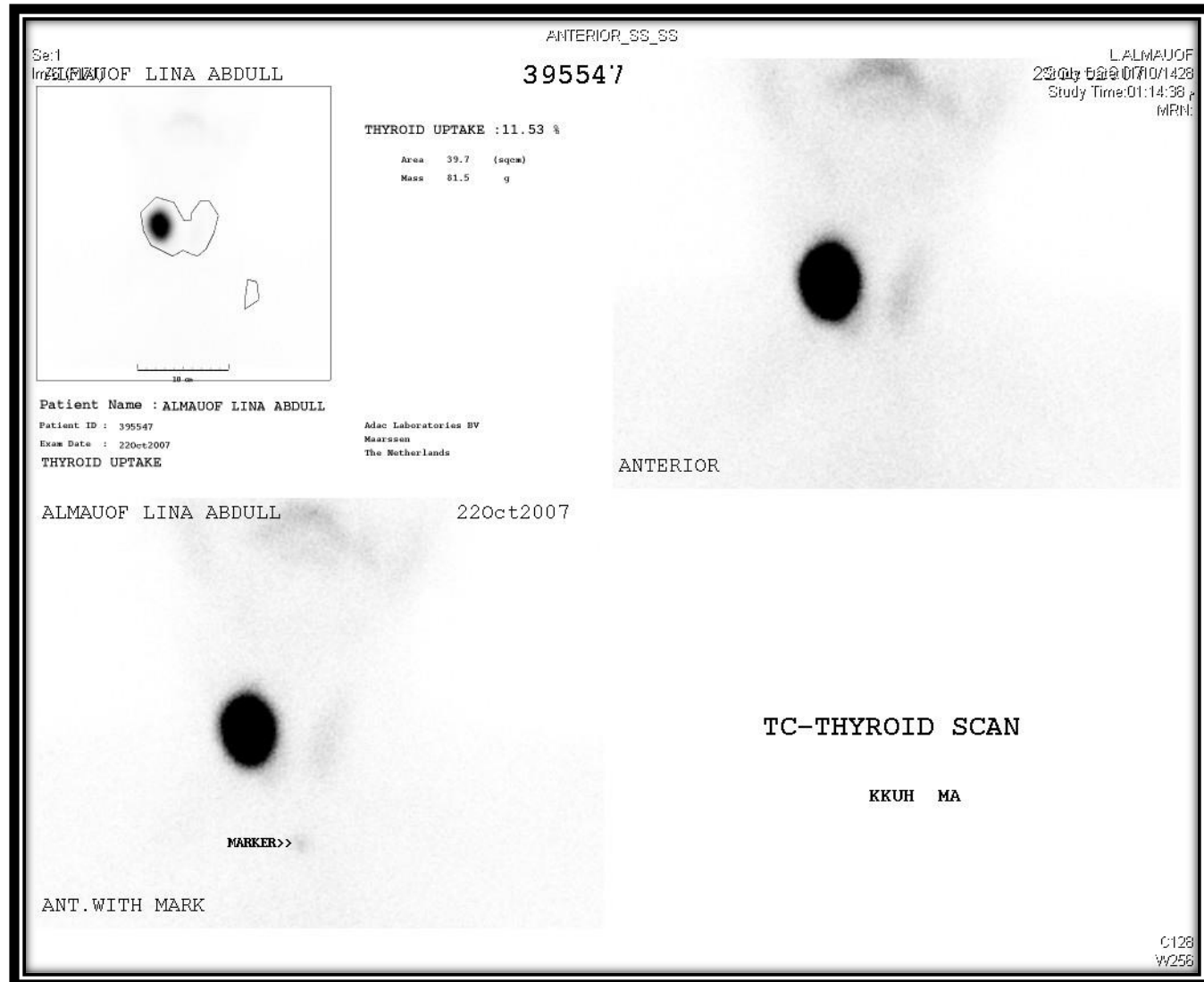
TC THYROID UPTAKE

KKUH HS

ANT THYROID
Thyroid_SS_SS

C128
W256

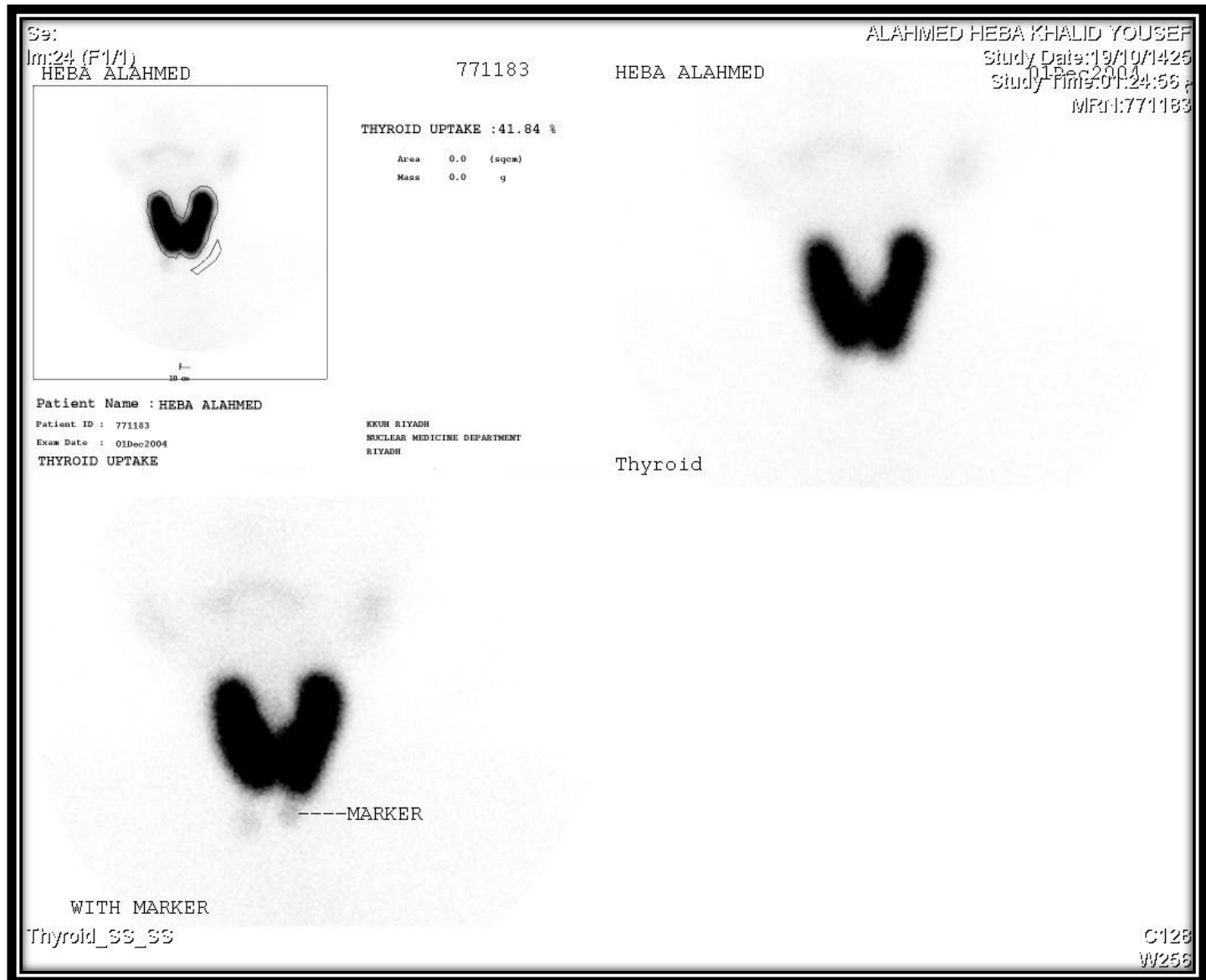
Elevated T4 and suppressed TSH



Teaching Points

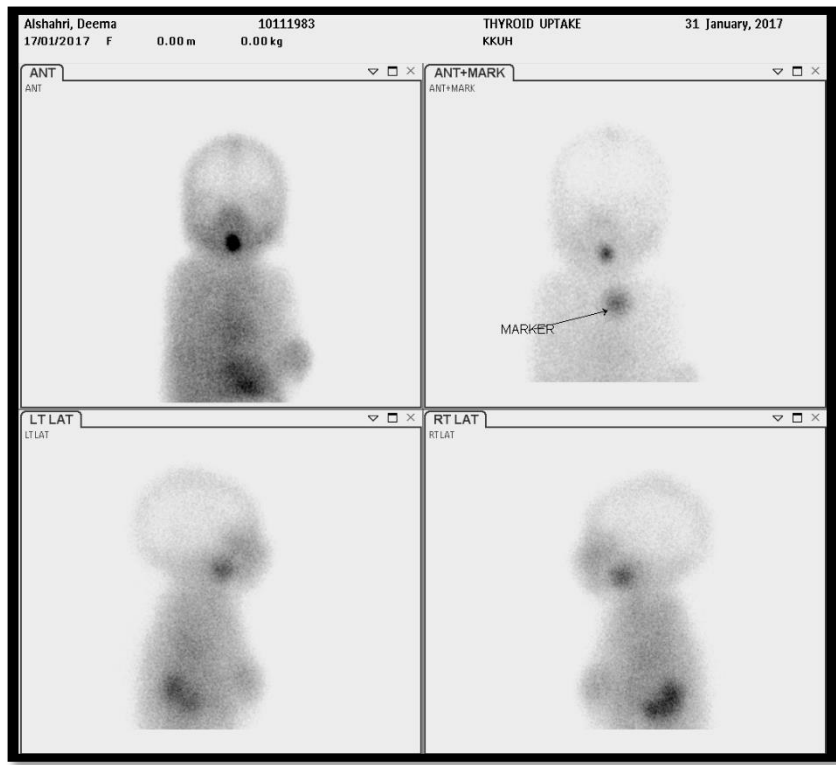
- In patients with thyrotoxicosis , thyroid scan is used to differentiate thyrotoxicosis with hyperthyroidism from thyrotoxicosis without hyperthyroidism

Elevated TSH and low T4 (2 YEARS OLD)



Elevated TSH and low T4





Alshahri, Deema 10111983 THYROID UPTAKE 31 January, 2017
 17/01/2017 F 0.00 m 0.00 kg KKHU

Thyroid ANT

R L
 10 cm 30 cm

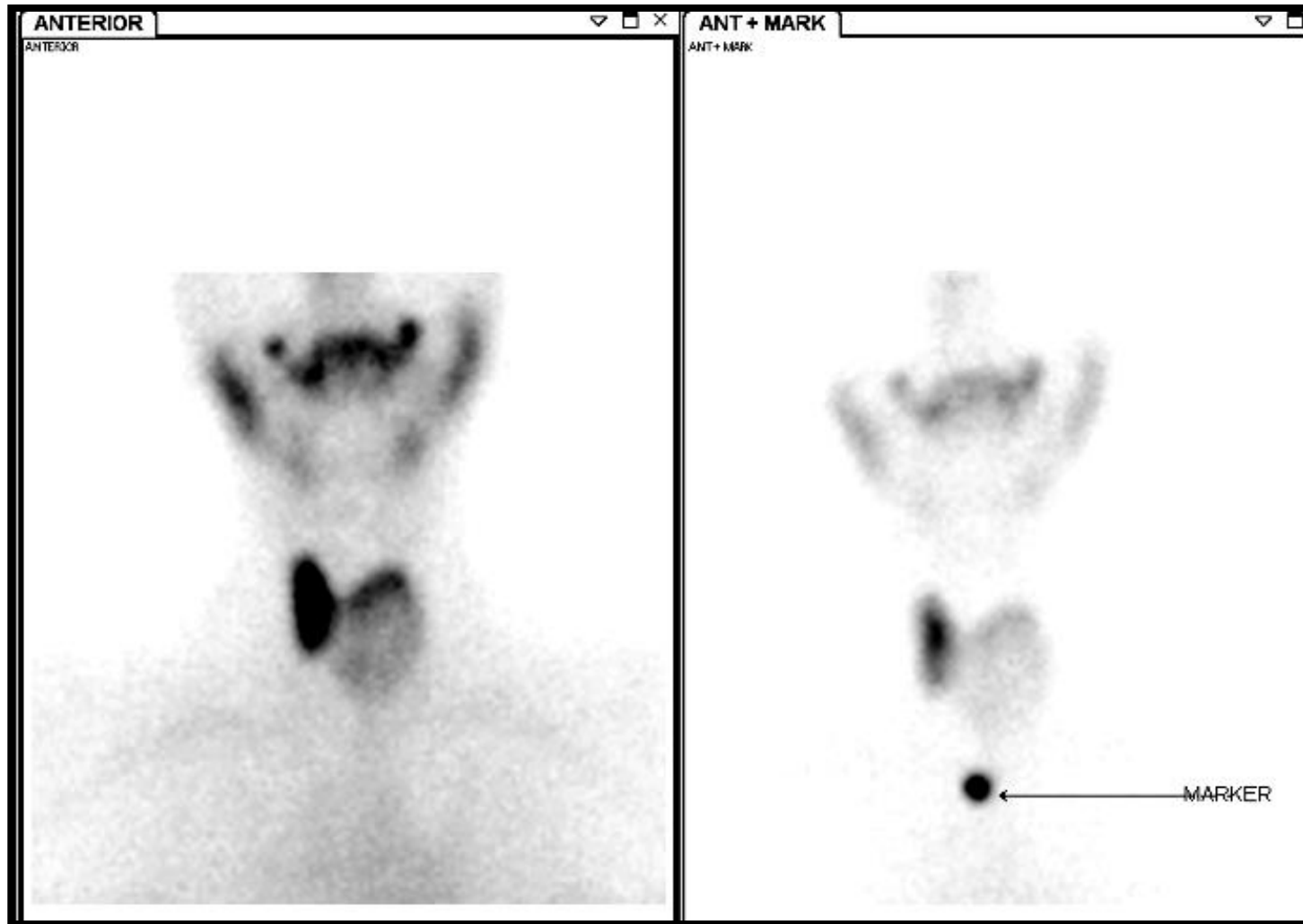
Results

Thyroid	
Counts	13603
Number of pixels	194
Uptake (%)	0.91
Thyroid area(cm2)	2.20
Thyroid weight (g)	1.07
Thyroid volume(cm3)	3.27

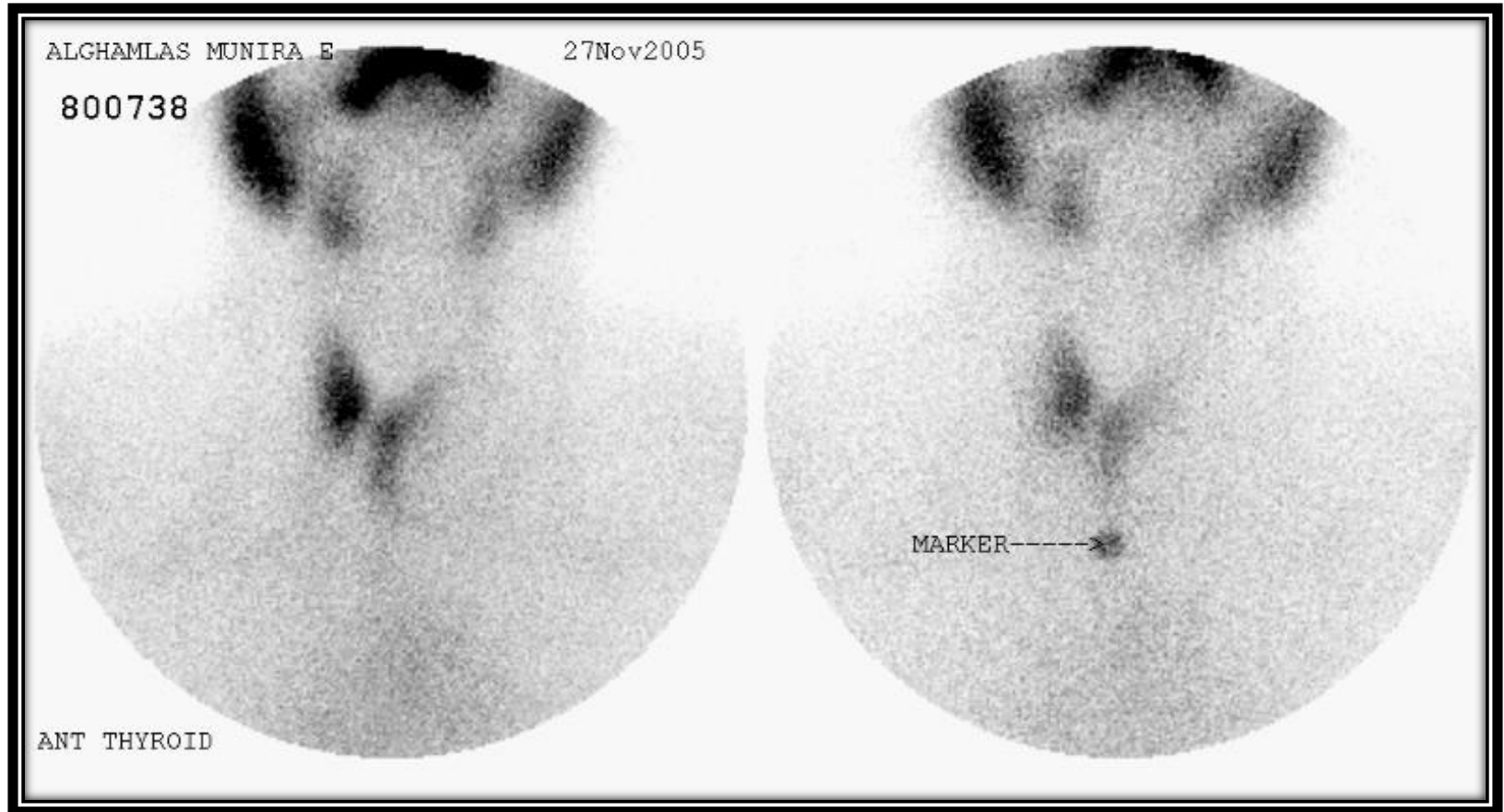
Teaching Points

- In patients with neonatal hypothyroidism, thyroid scan is used to differentiate dyshormonogenesis from ectopic thyroid and thyroid aplasia.

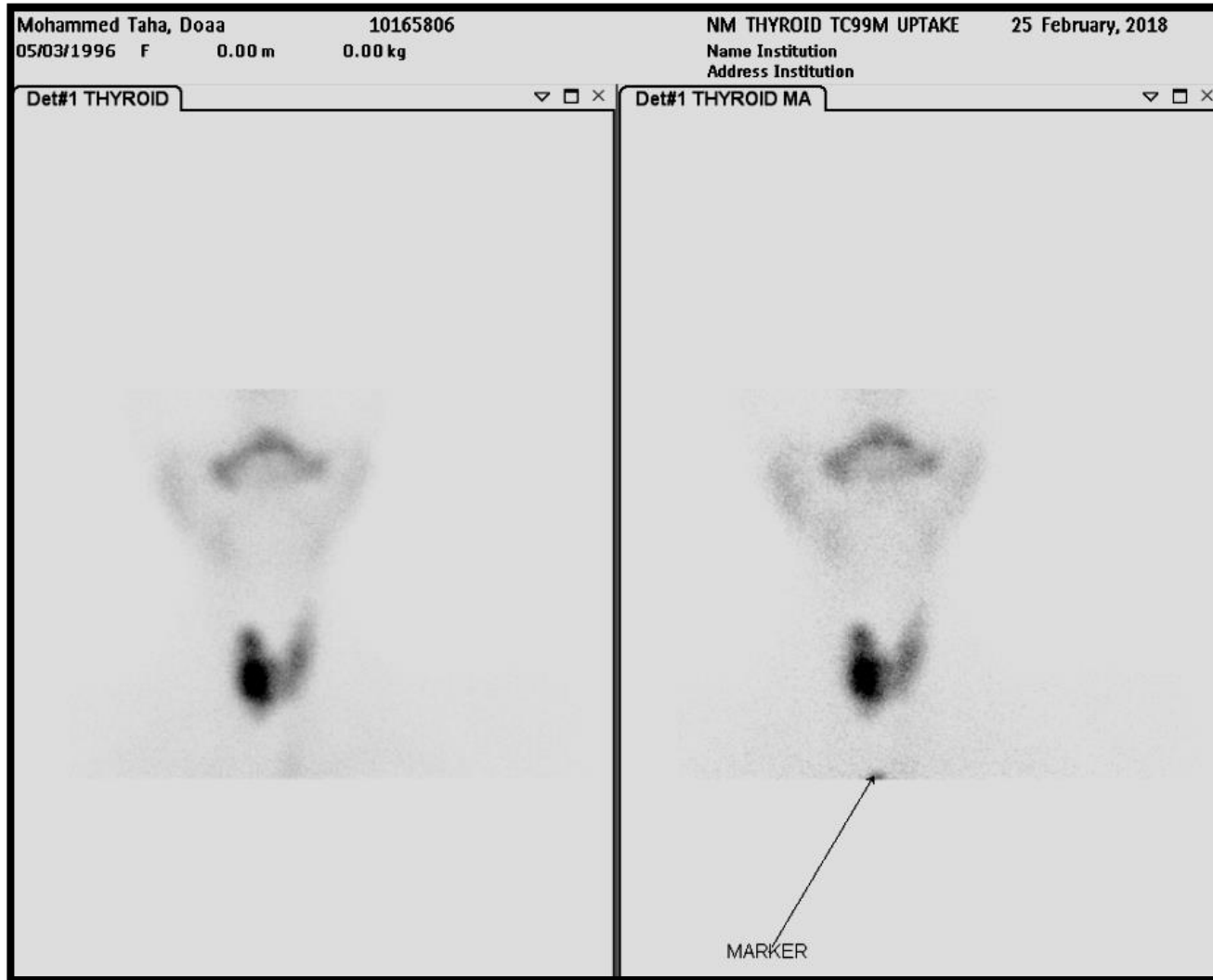
Palpable Neck Mass



Palpable Neck Mass



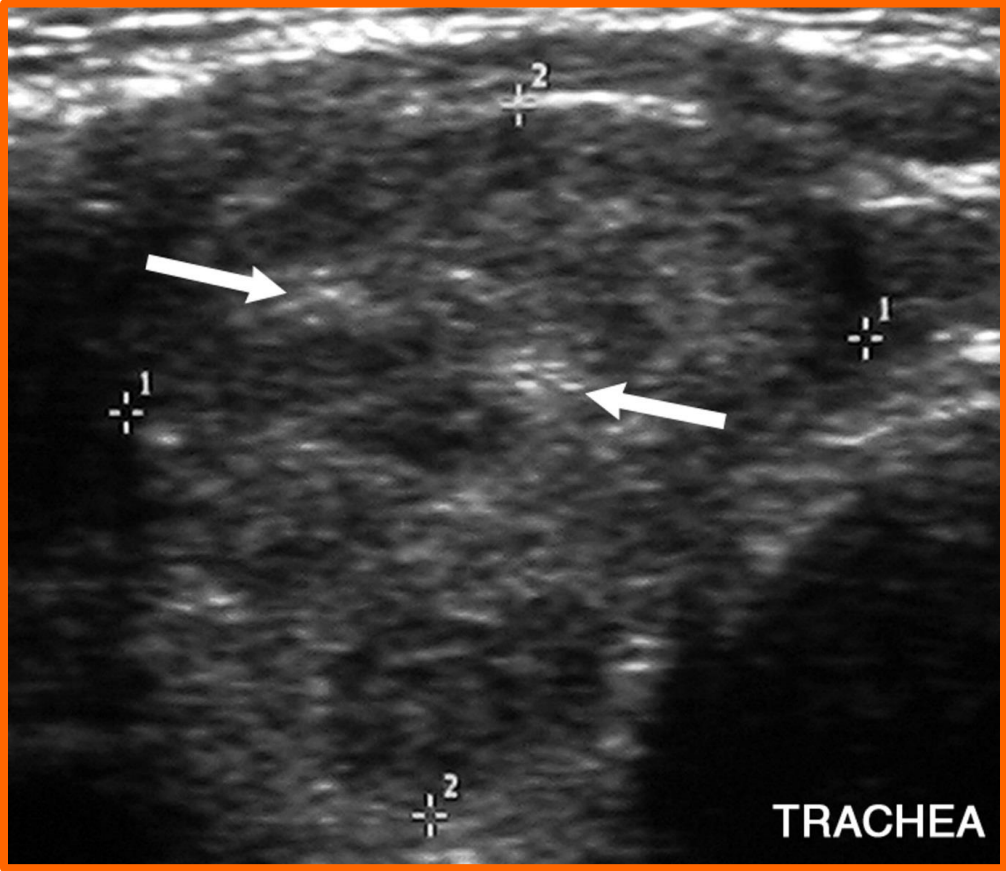
Palpable Neck Mass



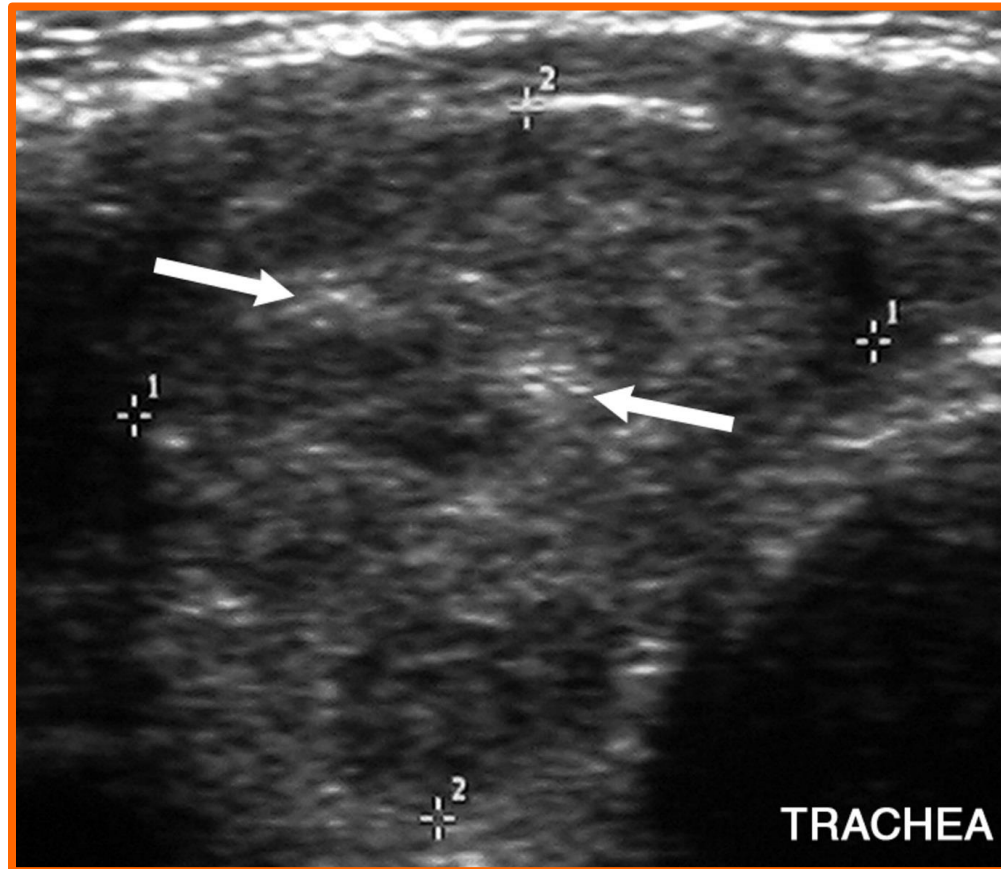
Teaching Points

- In patients with neck mass, thyroid scan is used to differentiate cold from hot thyroid nodules.

Right Thyroid lobe : Papillary thyroid carcinoma in a 42-year-old man.



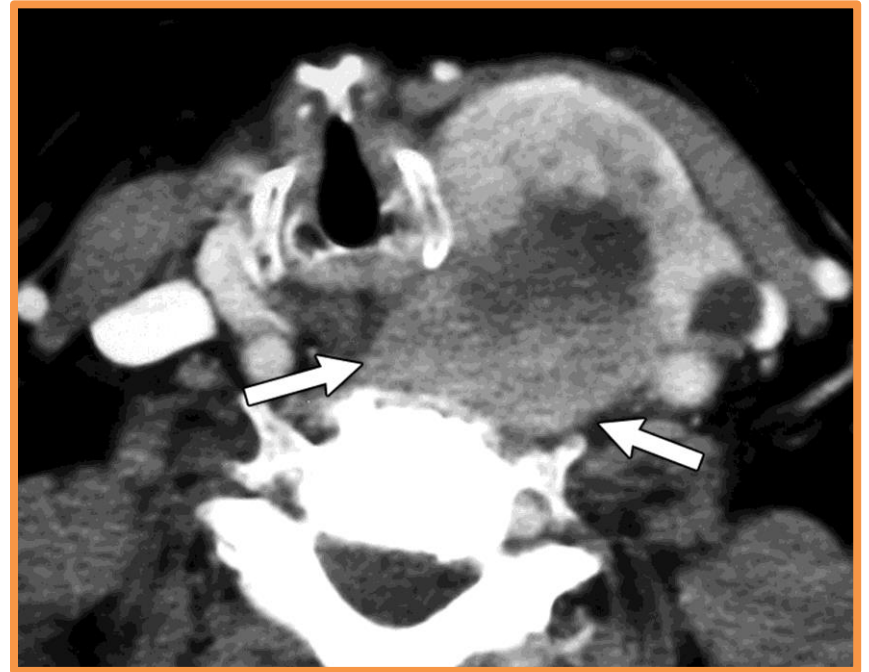
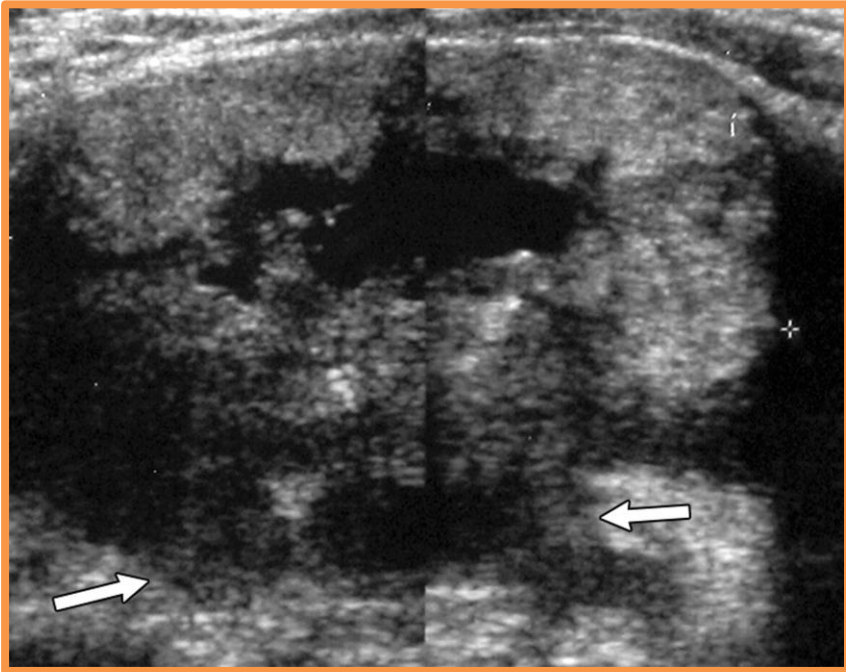
Right Thyroid lobe : Papillary thyroid carcinoma in a 42-year-old man.



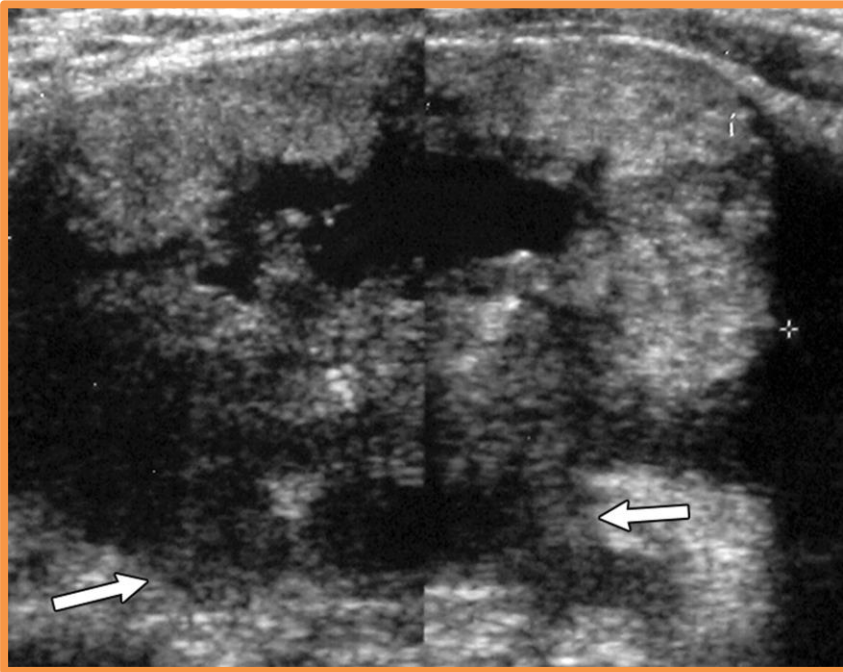
Transverse sonogram of the right lobe of the thyroid demonstrates:

Punctate echogenic foci without posterior acoustic shadowing, findings indicative of **microcalcifications** (arrows).

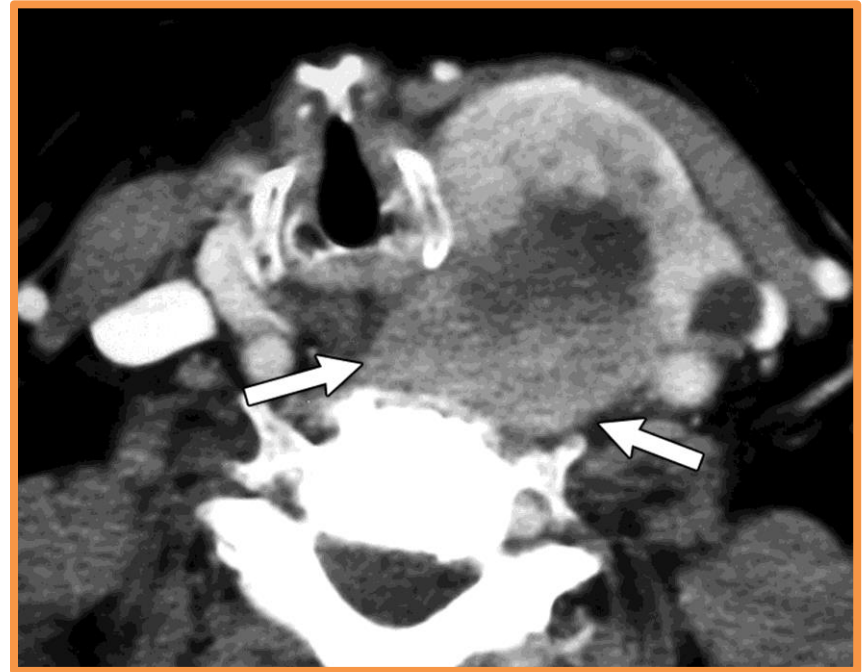
Anaplastic thyroid carcinoma in an 84-year-old woman



Anaplastic thyroid carcinoma in an 84-year-old woman

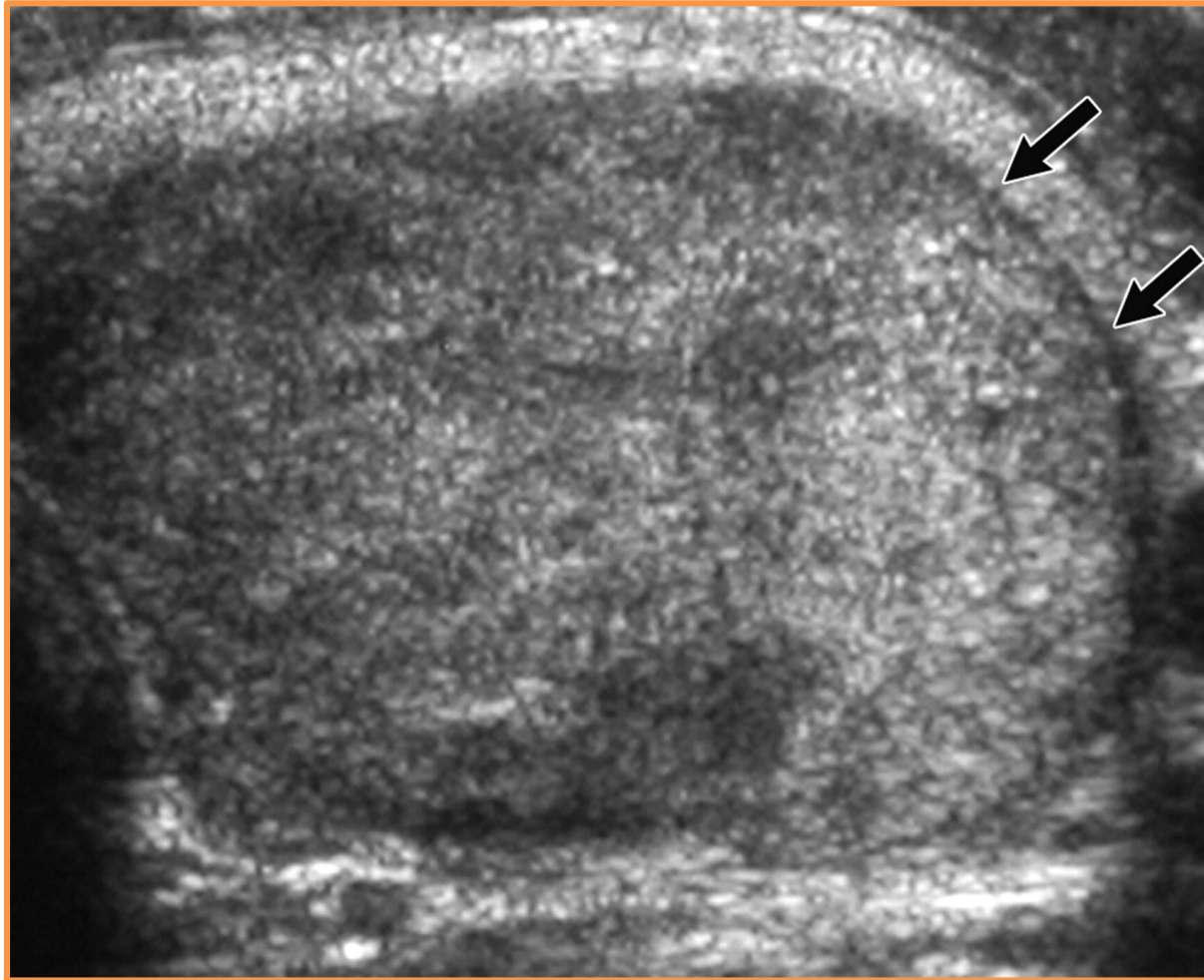


Transverse sonogram of the left lobe of the thyroid shows an advanced tumor with infiltrative posterior margins (arrows) and invasion of prevertebral muscle.

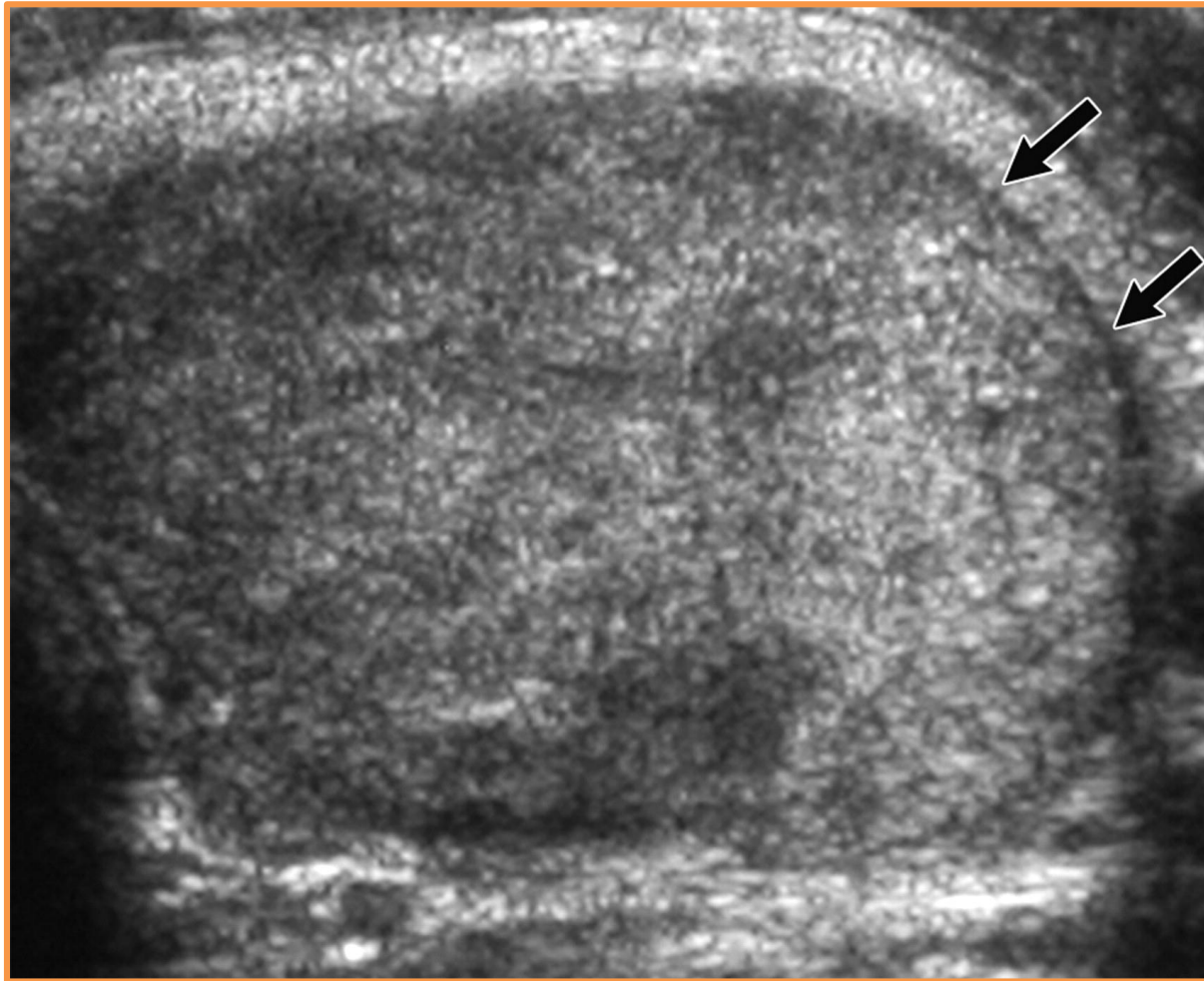


Axial contrast-enhanced CT image shows a large tumor that has invaded the prevertebral muscle (arrows).

Follicular adenoma in a 30-year-old woman

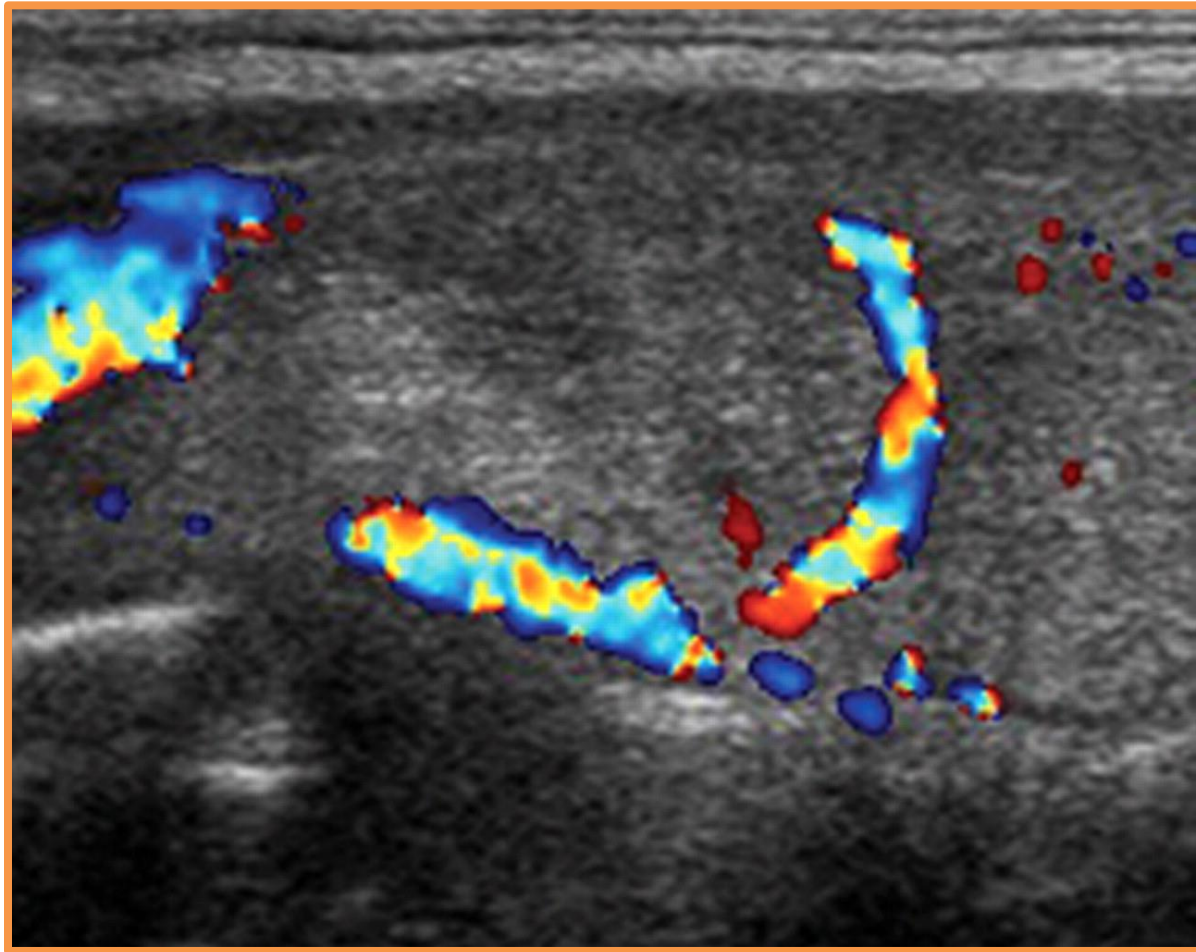


Follicular adenoma in a 30-year-old woman

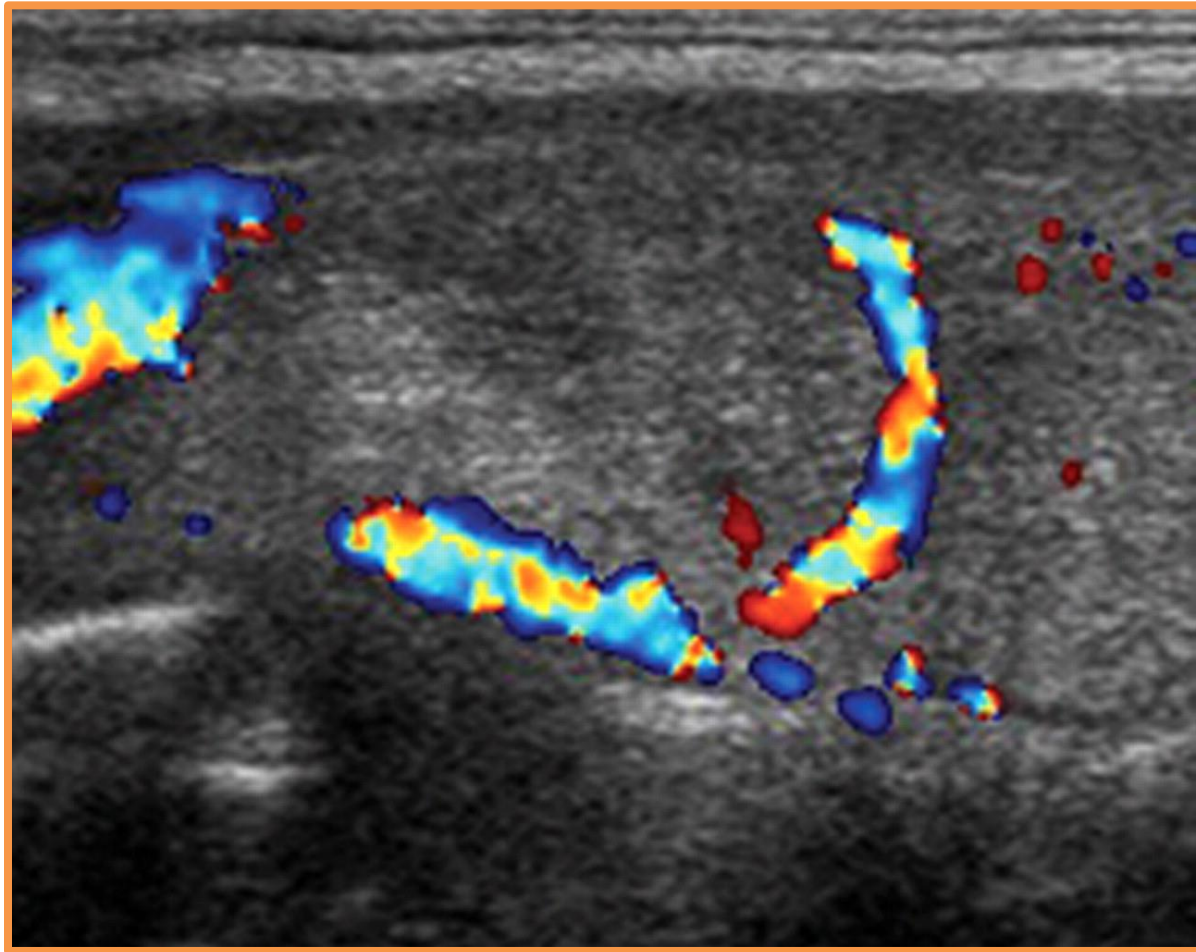


Transverse sonogram of the left lobe of the thyroid shows a follicular adenoma with a hypoechoic halo (arrows).

Follicular adenoma in a 36-year-old woman

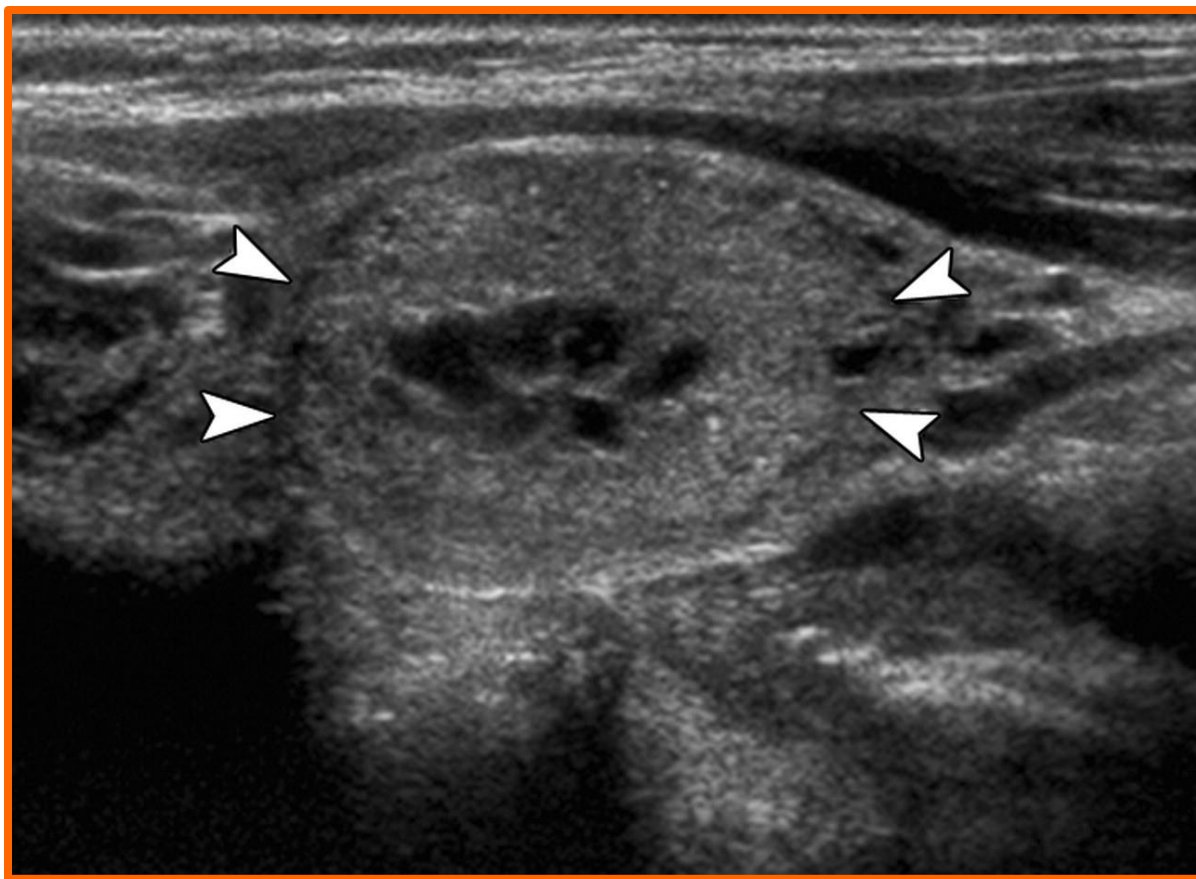


Follicular adenoma in a 36-year-old woman

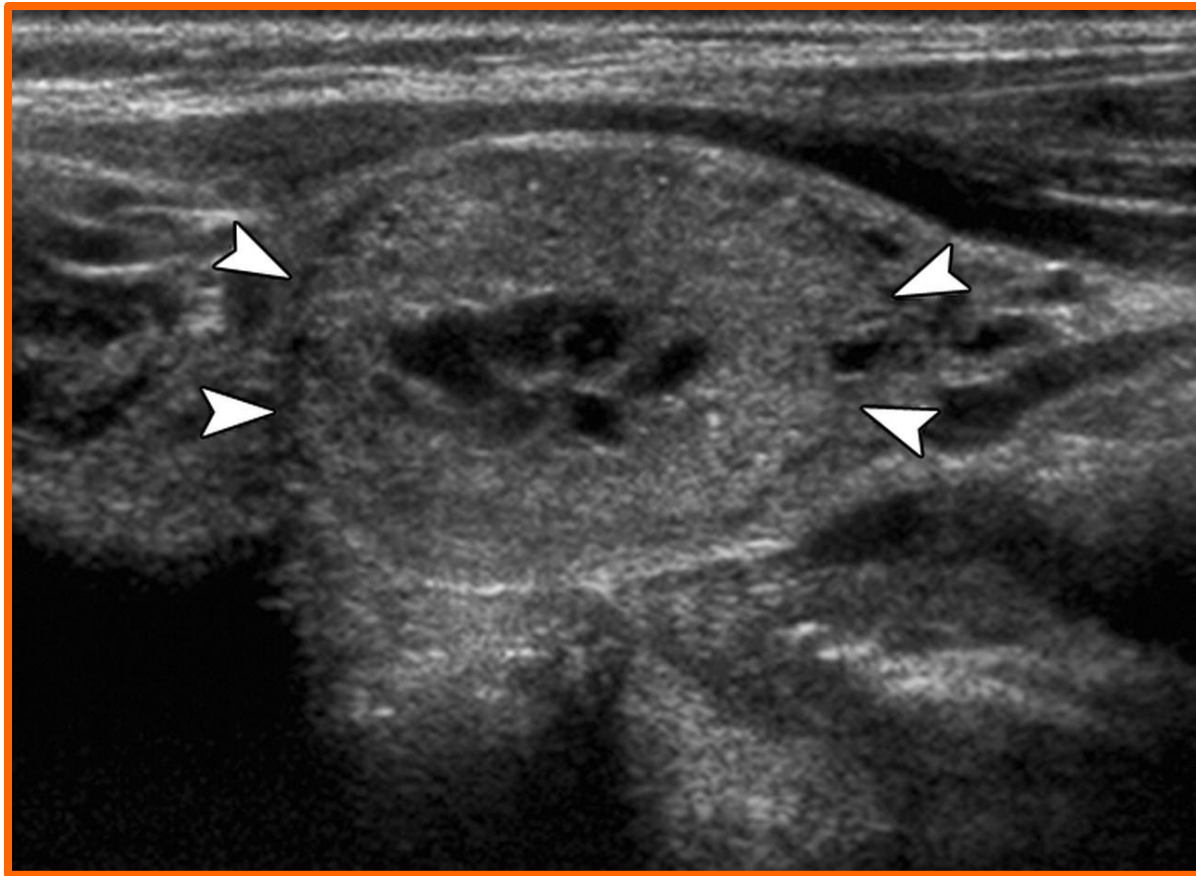


Longitudinal color Doppler sonogram of the right lobe of the thyroid shows perinodular flow around a follicular adenoma.

US images of thyroid nodules

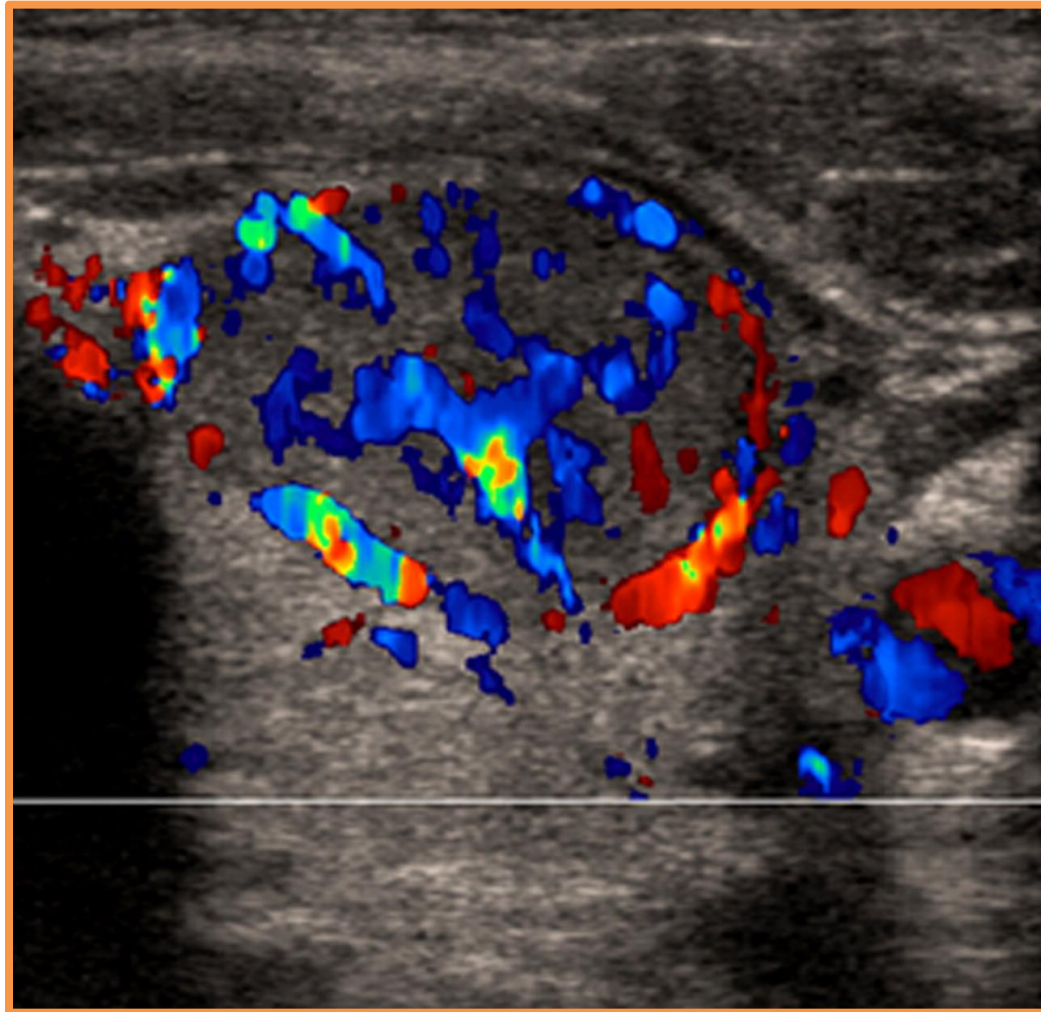


US images of thyroid nodules of varying parenchymal composition (solid to cystic).

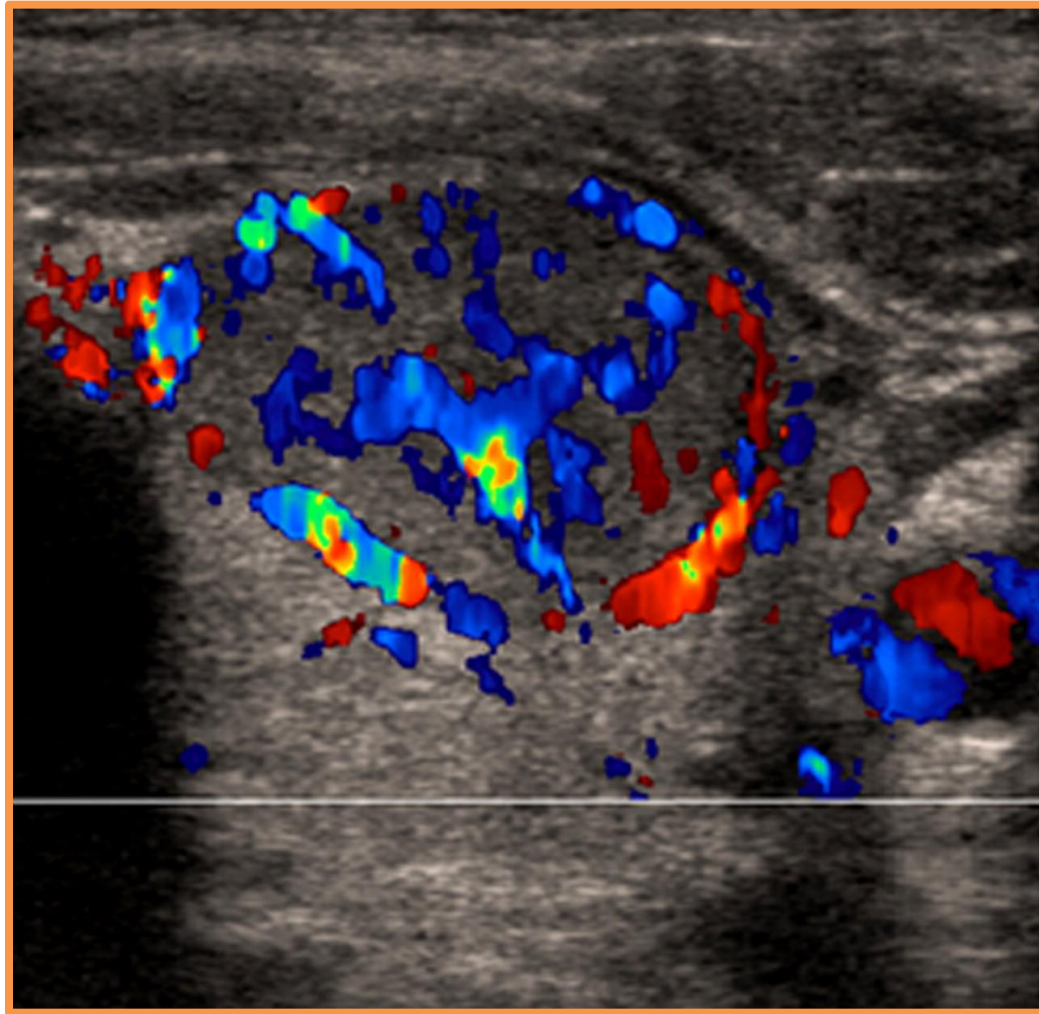


Proved to be benign at cytologic examination

Papillary carcinoma: Predominantly solid thyroid nodule



Papillary carcinoma: Predominantly solid thyroid nodule



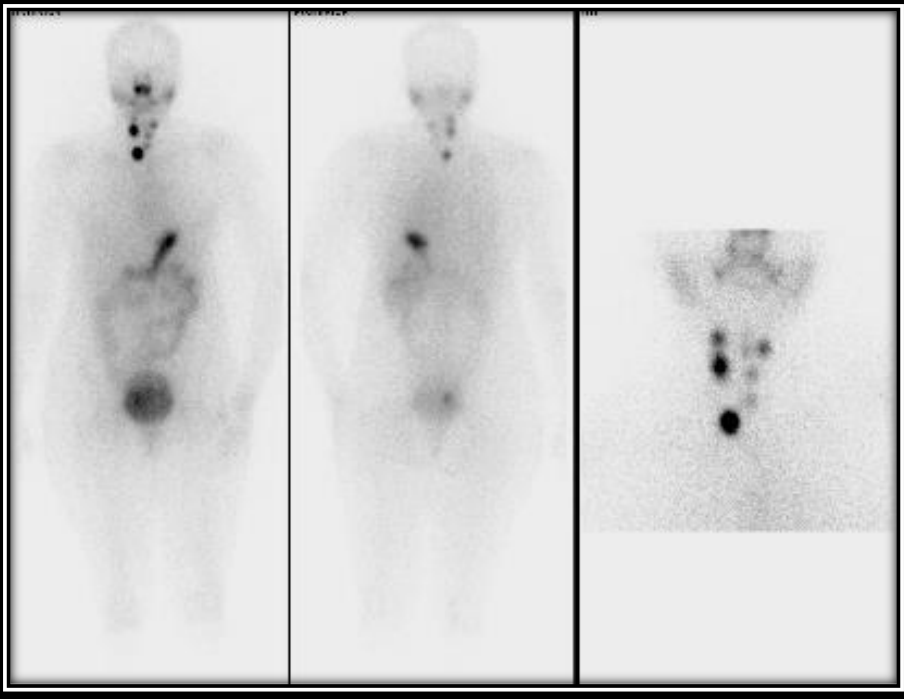
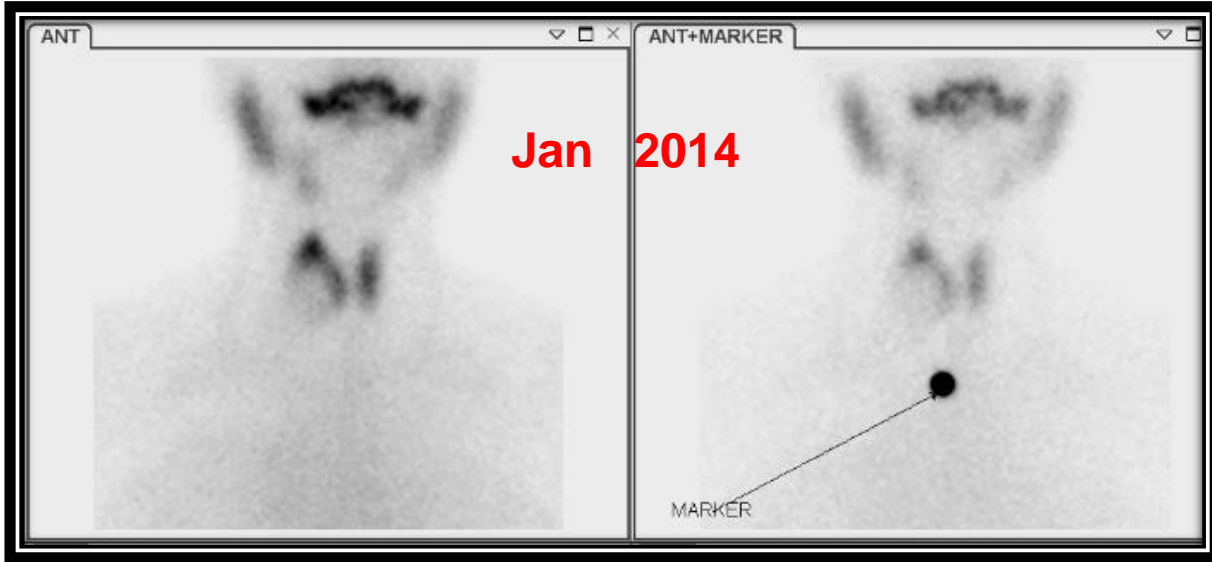
Role of colour Doppler US: colour Doppler mode shows marked internal vascularity, indicating increased likelihood that nodule is malignant. This was a papillary carcinoma.

Teaching Points

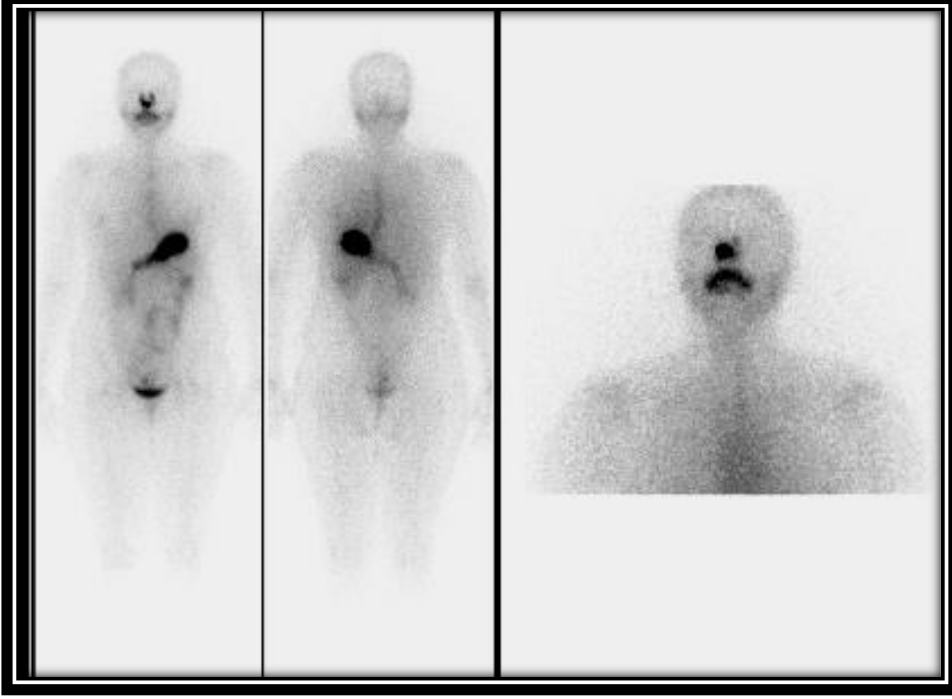
- **In patients with thyroid nodules ultrasound and color Doppler is used to:**
 1. Determine number of nodules.
 2. Differentiate solid from cystic nodules.
 3. Characterize thyroid nodule : Benign versus malignant.
 4. Assess for regional associated lymph node involvement

A32 years old female patient with neck swelling

- Agents and procedure
- Findings
- Differential diagnosis
- Other investigations
- Final diagnosis
- Management



March 2014

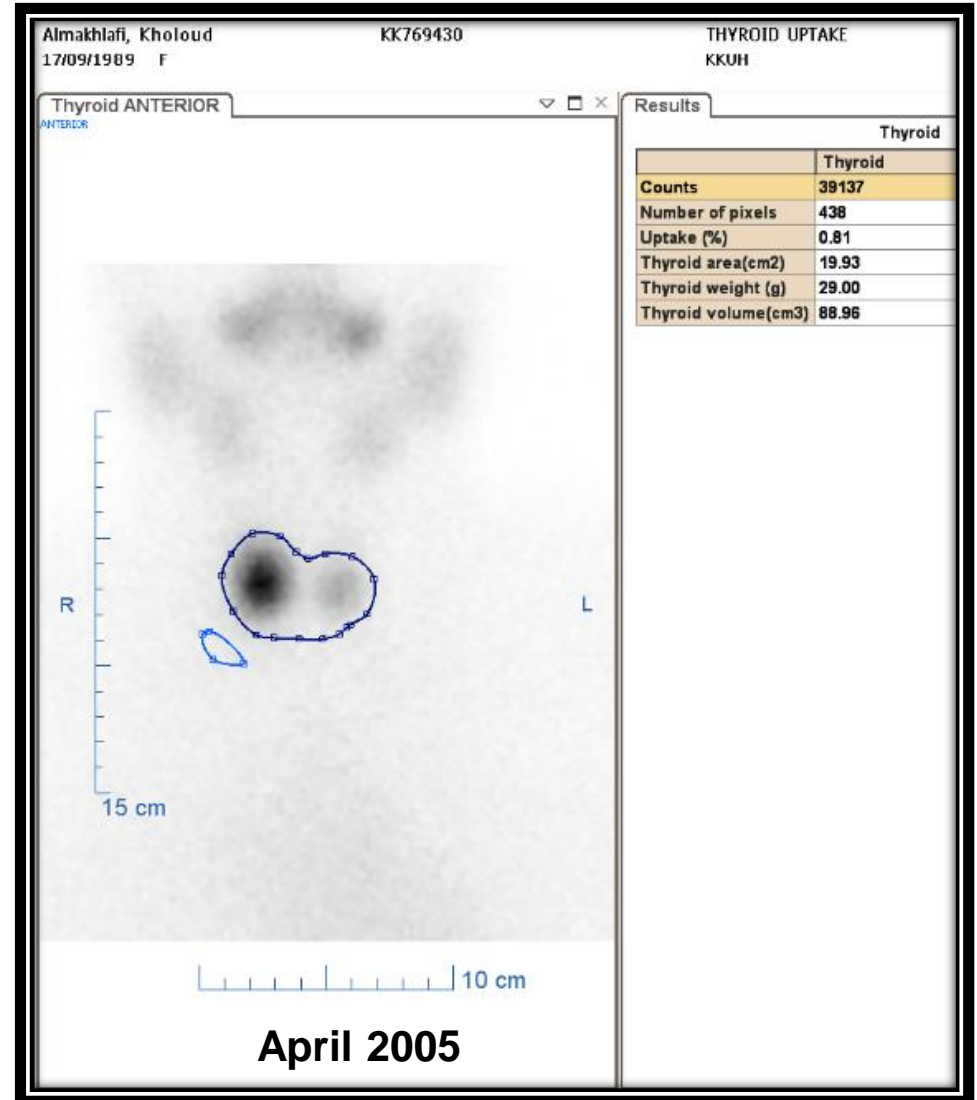
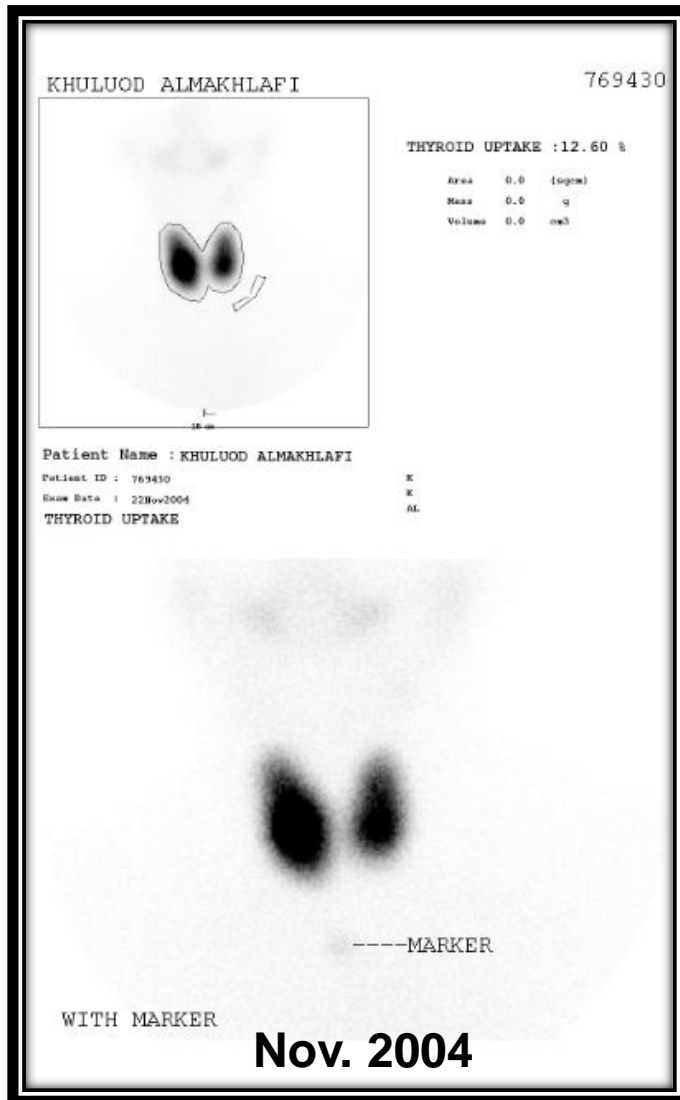


October 2014

Agent and procedure.

Findings

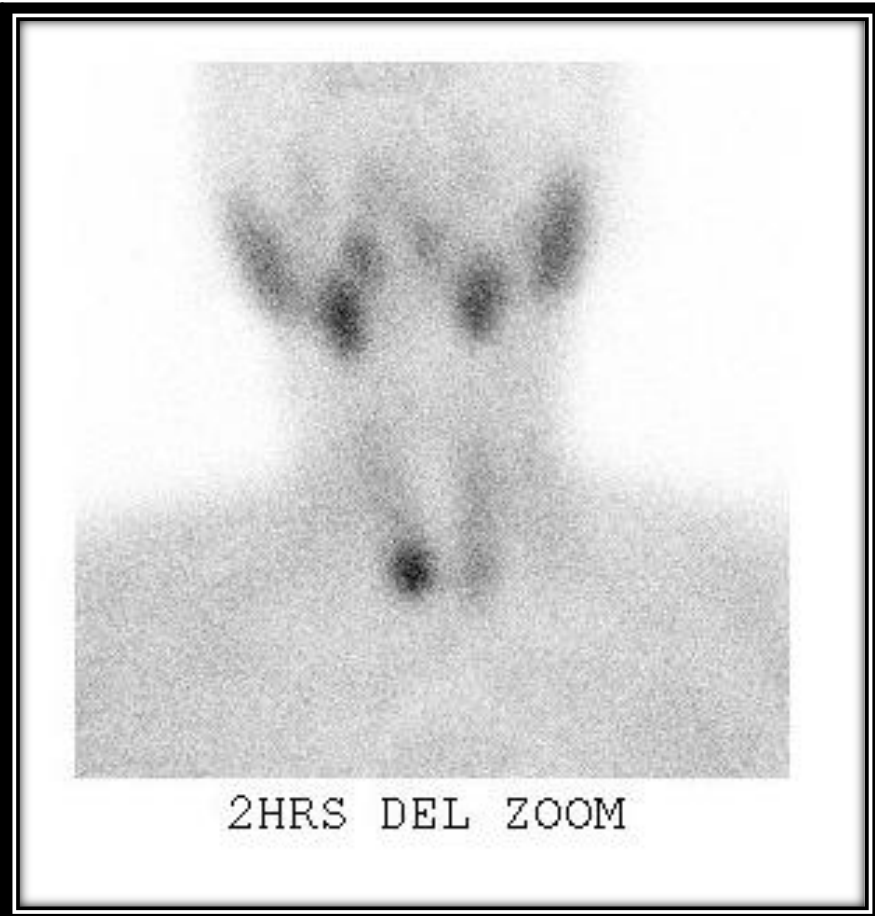
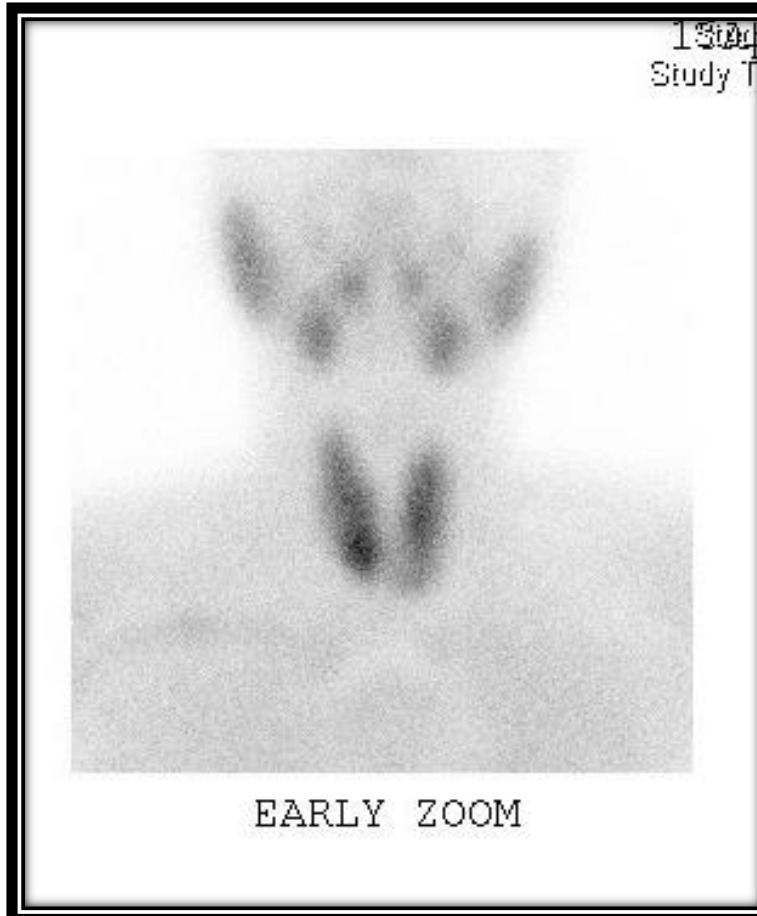
Conclusion



Teaching Points

- Iodine 131 is used to treat thyroid disorders including thyroid cancer and hyperthyroidism

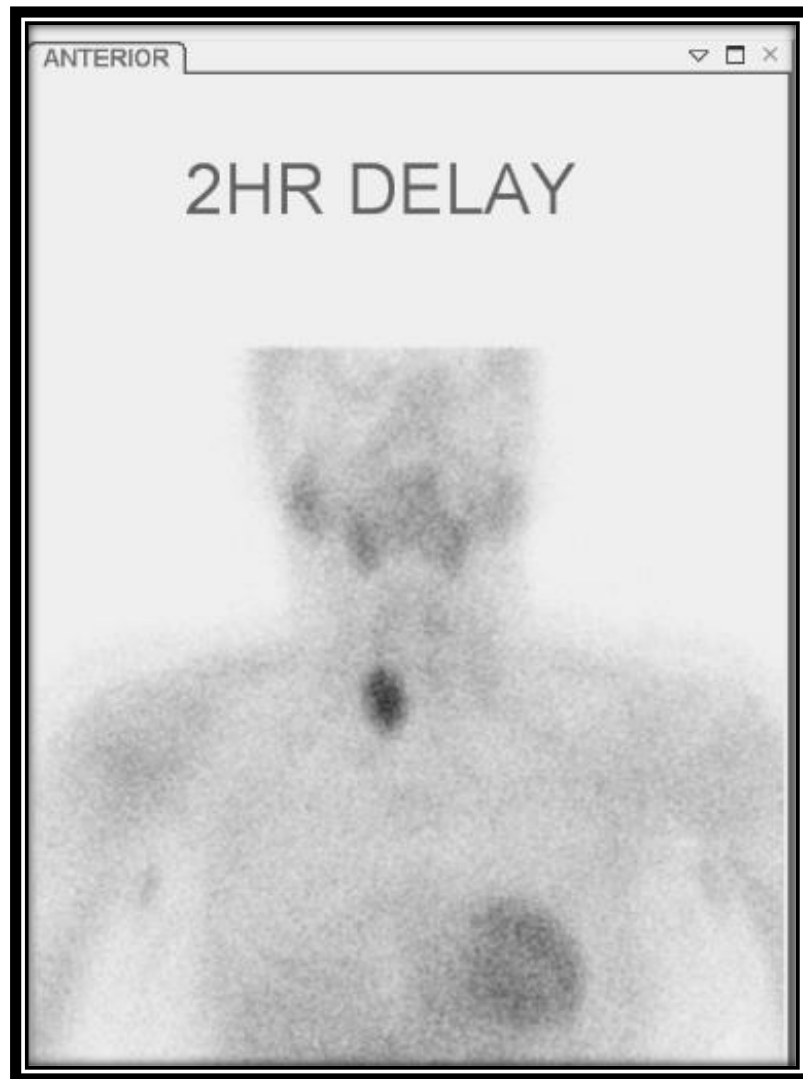
High PTH and High Ca



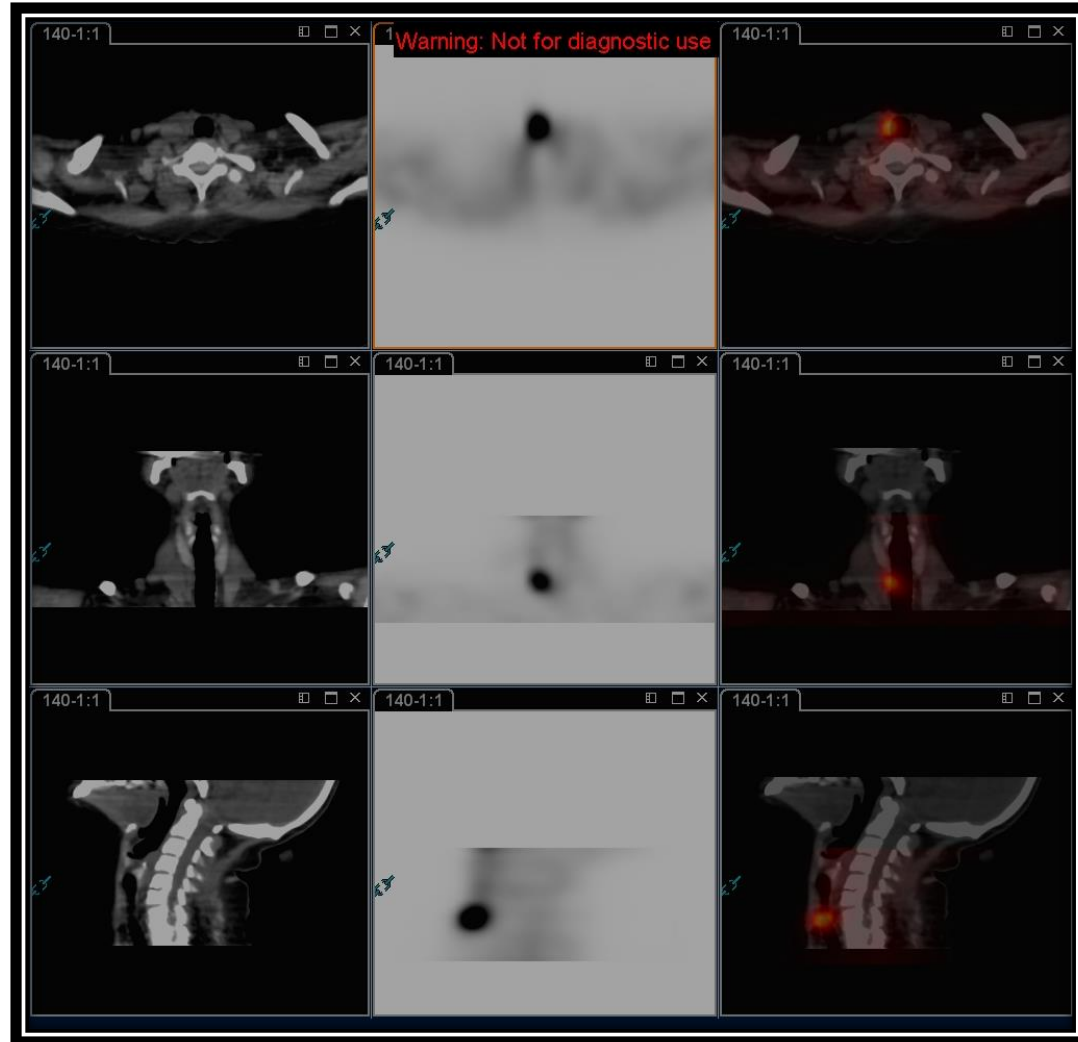
High PTH and High Ca



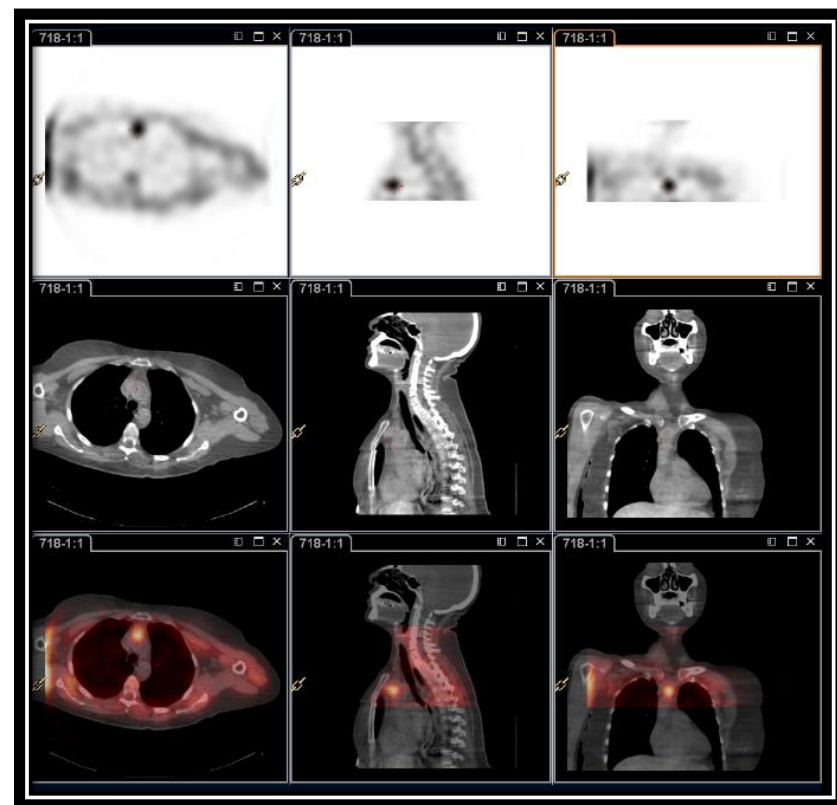
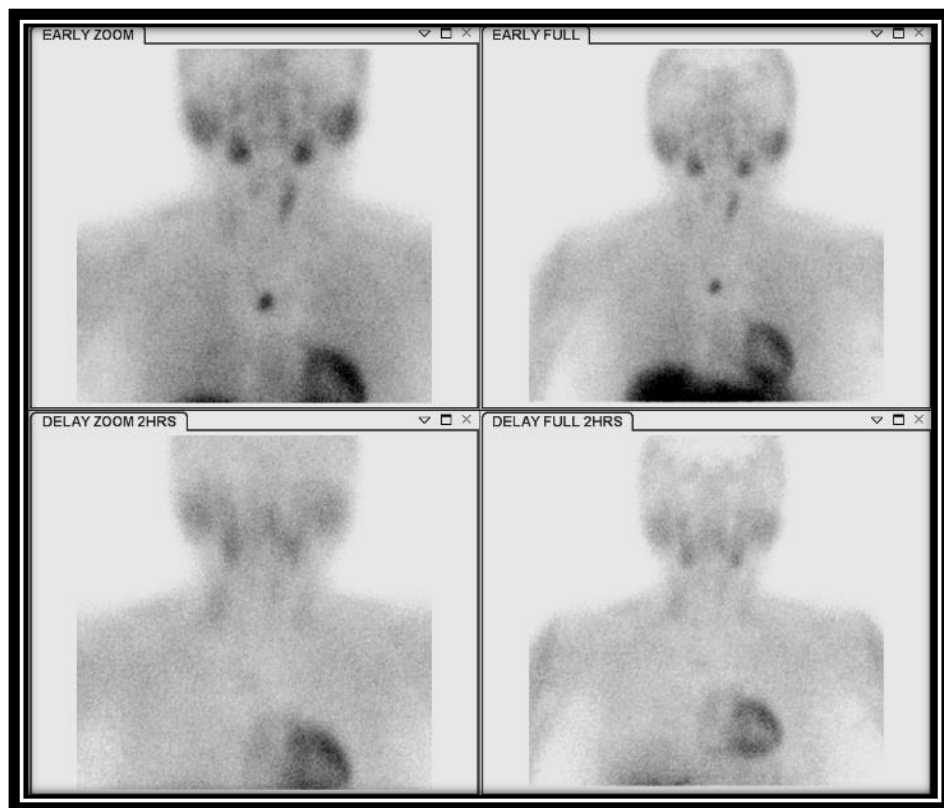
High PTH and High Ca...1



High PTH and High Ca...II



- Agent and procedure
- Findings
- Final diagnosis



Teaching Points

- In patients with hyperparathyroidism, parathyroid scan is used to detect and localize eutopic and ectopic parathyroid adenoma.