

ENDORAMA

“SECONDARY THYROID MASSES”

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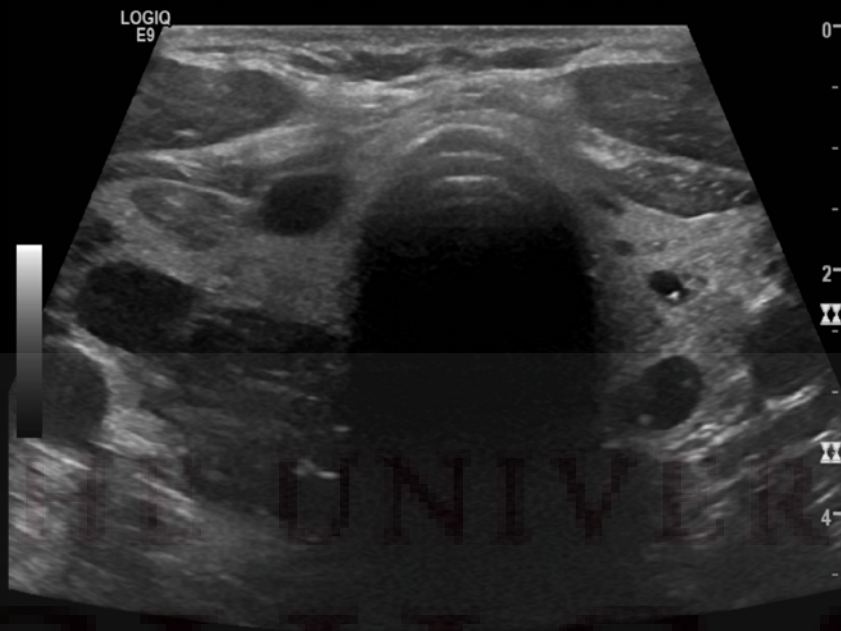
Nov 21, 2019

- Learning objectives:

- Epidemiology and etiology of secondary thyroid masses
- Clinical features and diagnosis of secondary thyroid masses; pitfalls of FNA
- Role of surgery in secondary thyroid masses

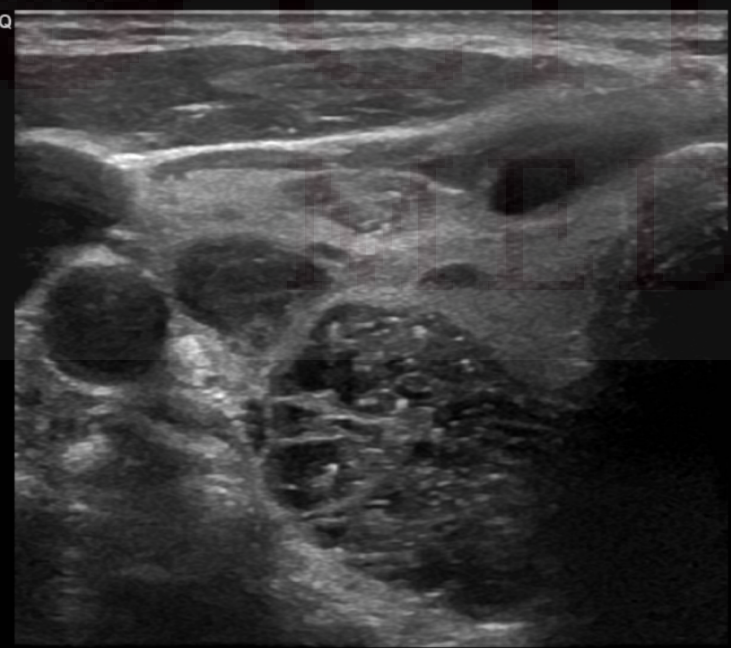
HISTORY

- 77 y/o M who presented to Endo surgery clinic for evaluation of bilateral thyroid nodules
- Med & Surg Hx
 - DM, Afib (on apixaban), HTN, CHF(EF 25%)
 - Left renal cell carcinoma s/p L nephrectomy 2005 and then
 - R nephrectomy in 2010(for suspicious renal cyst).
 - HD and placed on Renal transplant list
 - **Noted to have multiple bilateral thyroid nodule in July 2013(on screening CT for transplant. This was followed with Thyroid US.**

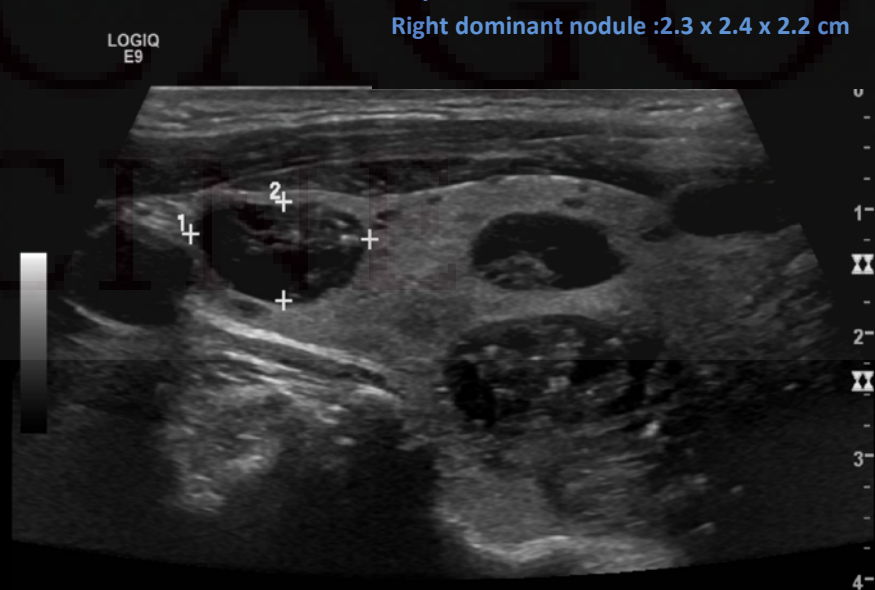


CHI
Frq 11.0
Gn 47
S/A 2/1
Map A/0
D 5.0
DR 69
AO% 100

TRANS THYROID



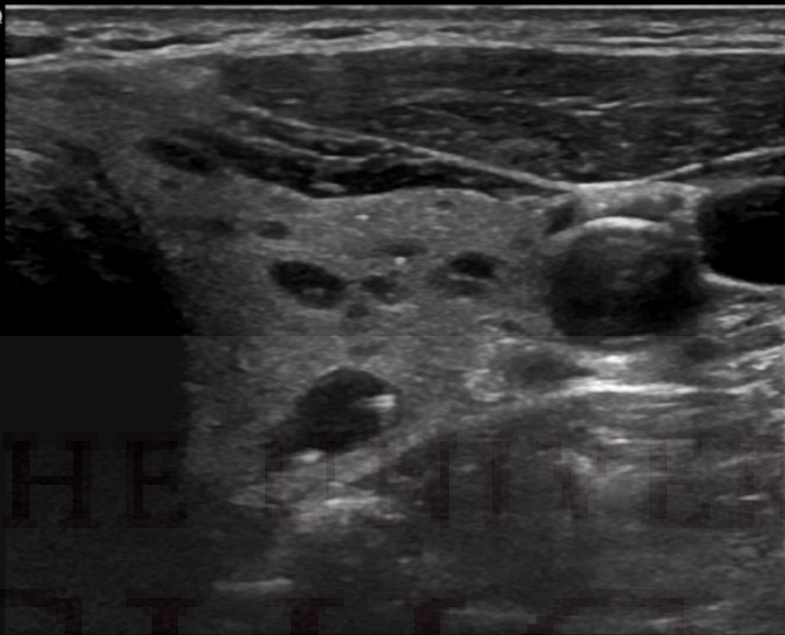
RIGHT THYROID TRANS S/I



July 2013
Right dominant nodule :2.3 x 2.4 x 2.2 cm

RIGHT THYROID LONG

LOGIQ
E9



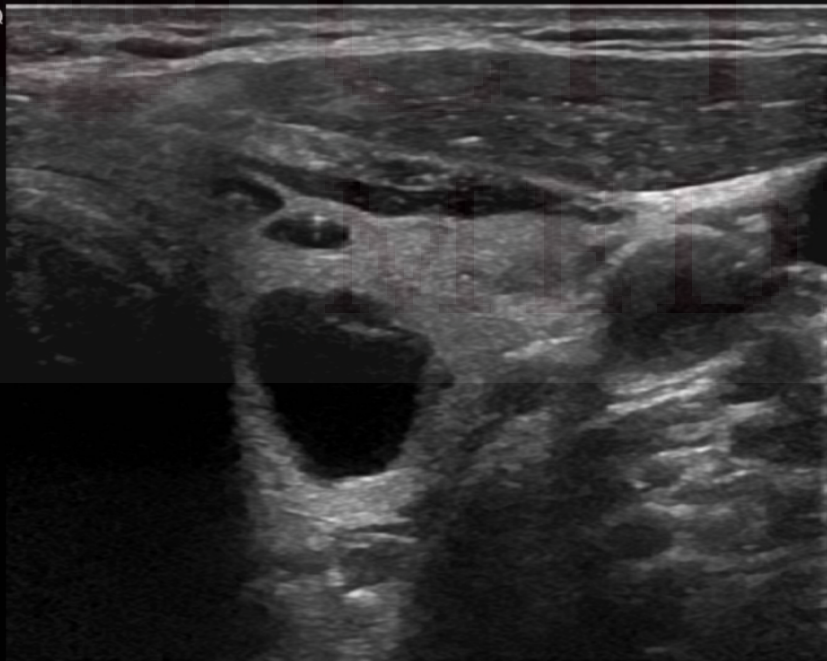
1
2
3
4

July 2013

Left dominant nodule :1.2x1.3x1.2cm

LEFT THYROID TRANS S/I

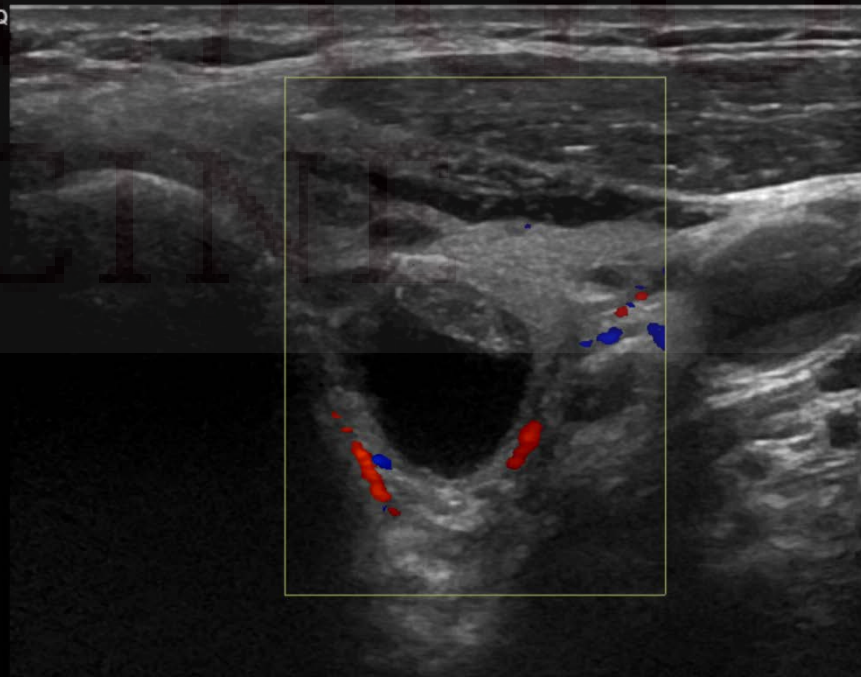
LOGIQ
E9



LEFT THYROID TRANS S/I

LOGIQ
E9

7
-7
cm/s

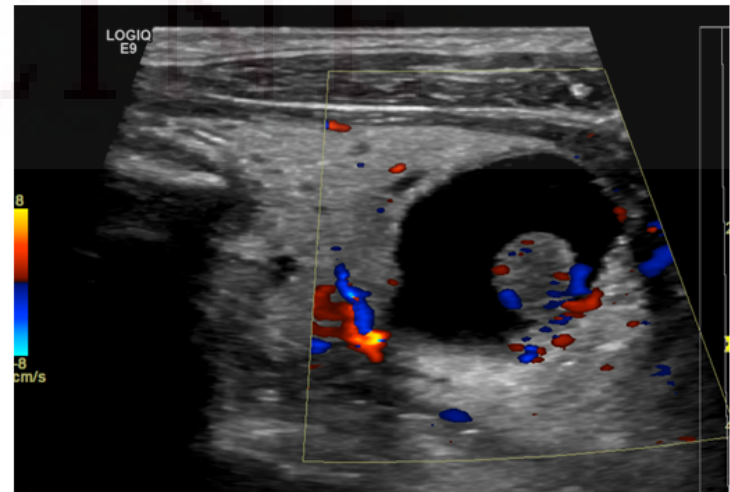
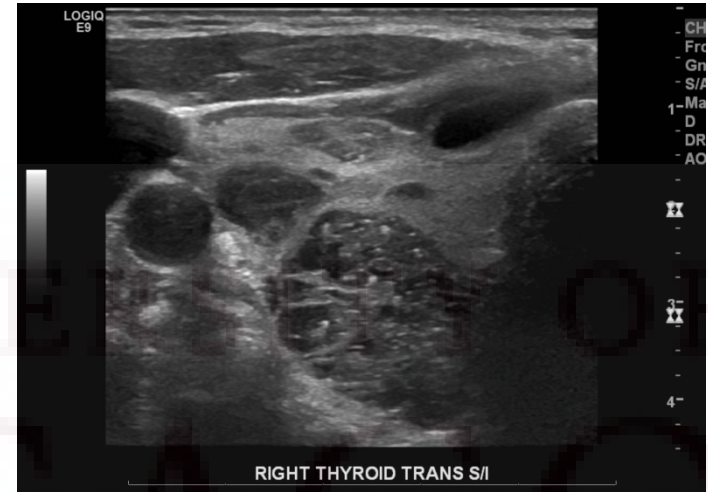


HISTORY

- Asymptomatic:
 - no neck pain , pressure, Normal voice/phonation
 - No toxic symptoms.
- No hx of exposure to radiation
- No family history of thyroid cancer/ problems
- TSH 0.12, Free T4: 1.04, T3: 95

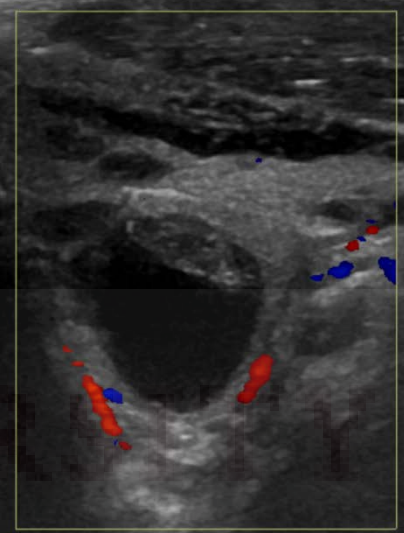
JULY 2013 – APRIL 2016

- FNA of dominant rt nodules on 7/29/13 → benign colloid nodule
- Thyroid US Dec 2014 → No interval change
- Kidney transplant in Jan 2015.
- F/U Thyroid April 2016:
 - ↑size of dominant left lobe nodule
 - new vascular polypoid component
 - no other interval change



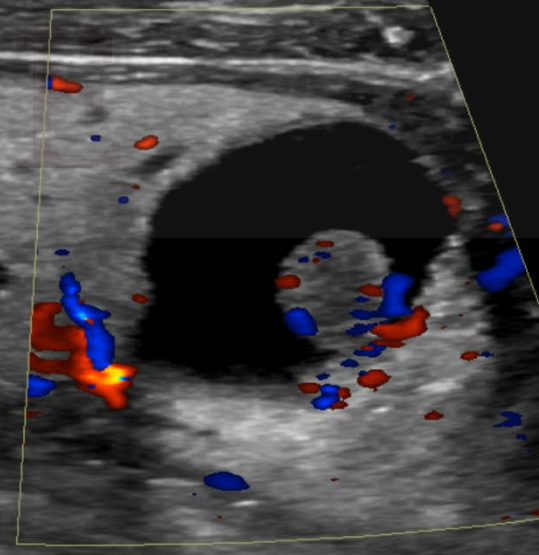
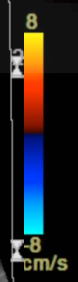
LOGIQ
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July 2013
Left nodule :1.2x1.3x1.2cm



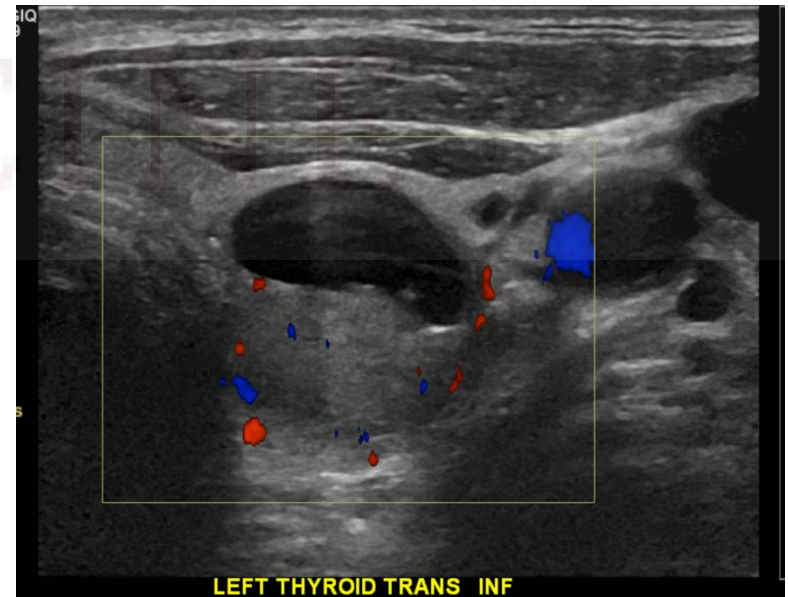
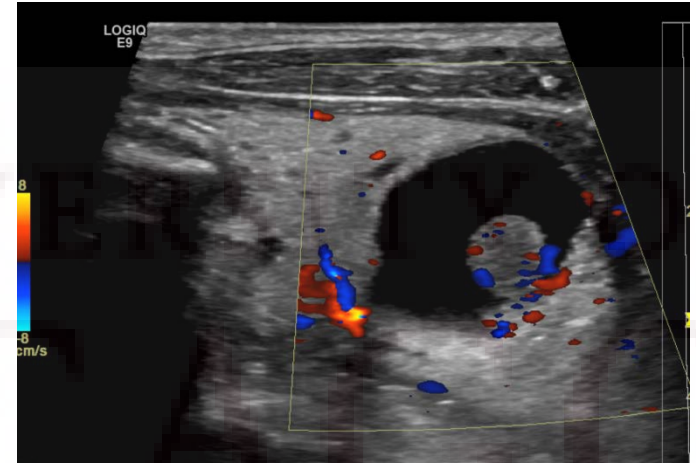
LOGIQ
E9

April 2016
Left nodule: 3.0 x2.3 x2.1cm

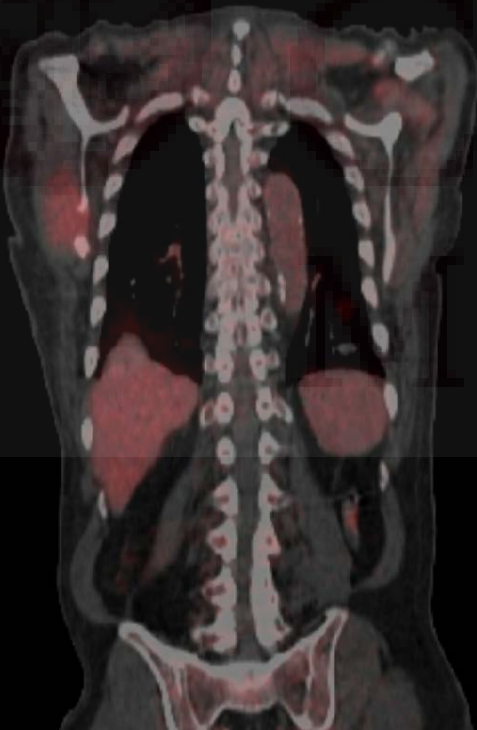
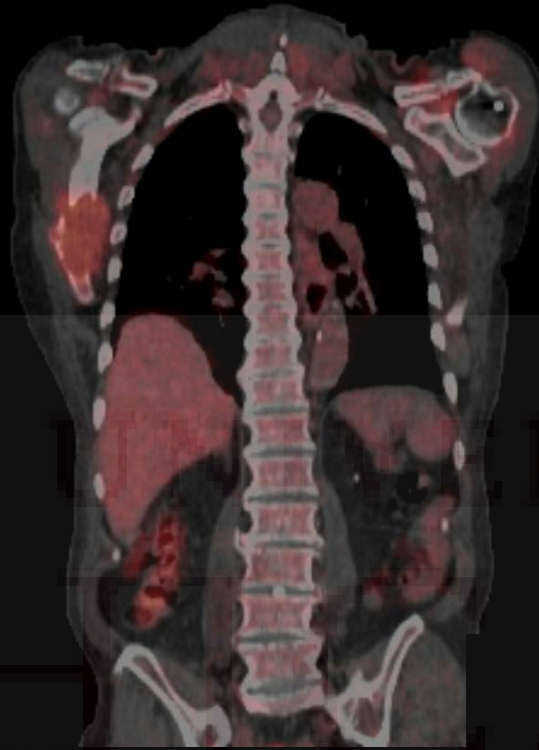


APRIL 2016 – DEC 2017

- Repeat US Sept 2016:
 - ↓ size of left nodule itself
 - ↑ size of vascular polypoid mass (1.1 x 1 x 1.1cm from 0.75 x 0.75 x 0.8cm in April 2016)
- FNA of dominant left nodules on Oct 2016 & repeated Dec 2016 → inconclusive/non diagnostic
- Thyroid US June 2017
 - Stable size of left thyroid nodule.
 - ↑ size of the solid component but less vascular
 - Final read: Favors Benign



- Pathologic fracture of right scapula July 217
- PET CT: mets to right scapular and left lung.
- Partial right scapulectomy Sep 2017.



APRIL 2016 – DEC 2017

- Thyroid US Dec 2017
 - Stable size of left thyroid nodule.
 - ↑size of solid component but less vascular
 - Final read: Favors Benign

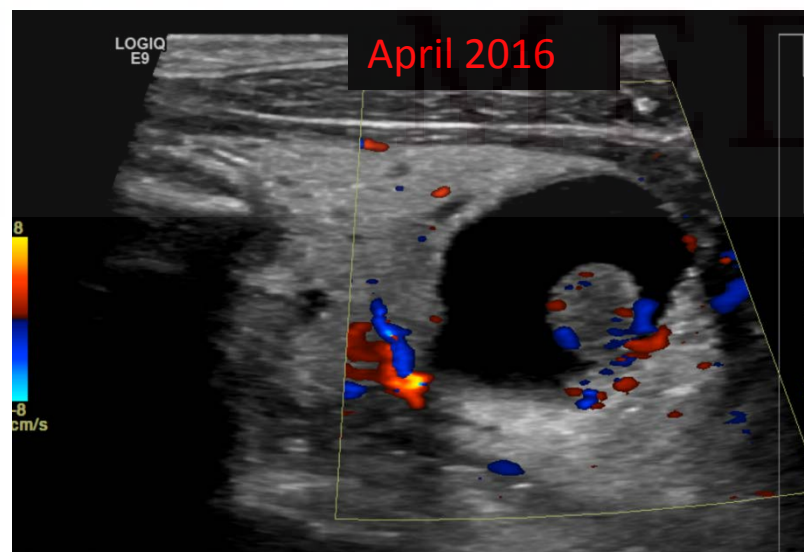
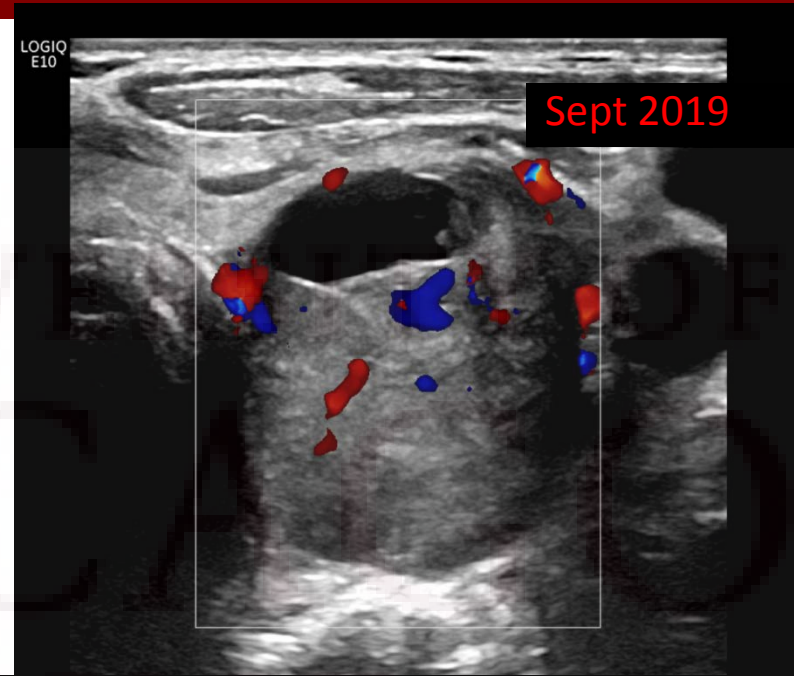
SEPT 2019– Nov 2019

Sept 2019 Thy US :

- ↑size of solid component 4.5x3.5x2.8cm.

Previously:

- 2.4x2.2x1.8cm Dec 2017
- 1.3 x 1.8 x 1.7cm Jun 2017
- 1 x 1 x 1.1 cm Sept 2016



NEXT STEP?



- Seen in Endo Surgery clinic on 10/24/19
- Physical Exam:
 - Trachea normal, normal range of motion,
 - Phonation normal.
 - Neck supple. No neck tenderness present.
 - No tracheal deviation, no edema
 - Normal range of motion present.
 - No thyroid mass palpable and no thyromegaly

Consented for a total thyroidectomy

- OR for total thyroidectomy on 11/8/19
- Large left thyroid mass infiltrating and completely encasing the left RLN
- Left RLN subsequently freed from tumor but lost signal.
- Completed a left thyroidectomy and FS of specimen returned as very suspicious for PTC
- Total thyroidectomy was aborted; Left RLN injury



- FINAL PATHOLOGIC DIAGNOSIS

Left thyroid lobe; lobectomy (22.2 g):

- Metastatic renal cell carcinoma (4 cm, left mid-lower pole),
- Margins focally involved by carcinoma.

SECONDARY THYROID MASSES

Clinical presentation & diagnosis



- 78% present with palpable neck mass, other incidental on imaging ⁵
- 35- 80% will present with metastasis elsewhere. ^{5,6,7}
- Abnormal LFT are relatively uncommon; late in disease if present. ^{6,8}
- Late stage disease present with symptoms of advanced thyroid cancer; dysphonia, dysphagia etc. ³
- To increase the likelihood of a preoperative diagnosis, core or open biopsy have been considered. ^{3,10}
 - *Pitfalls
 - FNA: bloody aspirate
 - CNB: Traumatic

Treatment & Survival

- Surgery and/ or extent of surgery depends on the nature of primary tumor and surgical risks.
- Resection increases OS and CSS especially when RCC is tumor of origin ^{11,12}
- Median survival 6-14 months without resection vs 27 – 40.8 months after resection ^{11, 12}
- Local resection; thyroid lobectomy vs total thyroidectomy.
- Margin is important; ↑recurrence after TL vs TT(5 vs 13%, $p < 0.005$)¹¹
- Secondary thyroid mets itself is not a poor prognostic marker ^{3, 5}
- No role for radioactive/radiation

SECONDARY THY MASS: SURGICAL RESECTION

Local treatments for metastases of renal cell carcinoma: a systematic review

Saeed Dabestani, MD • Lorenzo Marconi, MD • Fabian Hofmann, MD • Fiona Stewart, MSc • Thomas B L Lam, MD • Steven E Canfield, MD • Michael Staehler, MD • Prof Thomas Powles, MD • Prof Börje Ljungberg, M.D. • Dr Axel Bex, MD   • [Show less](#)

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THE LANCET
Oncology

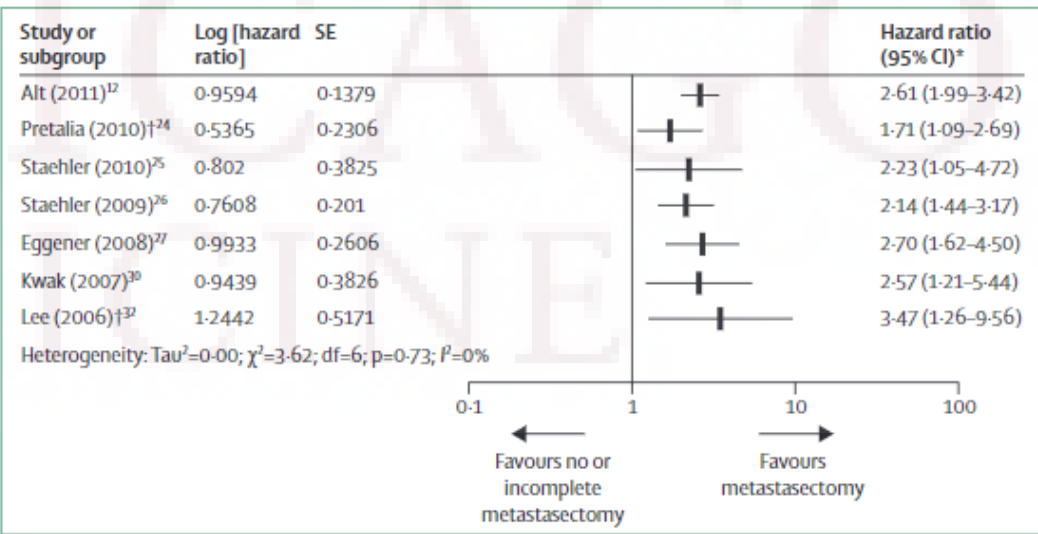
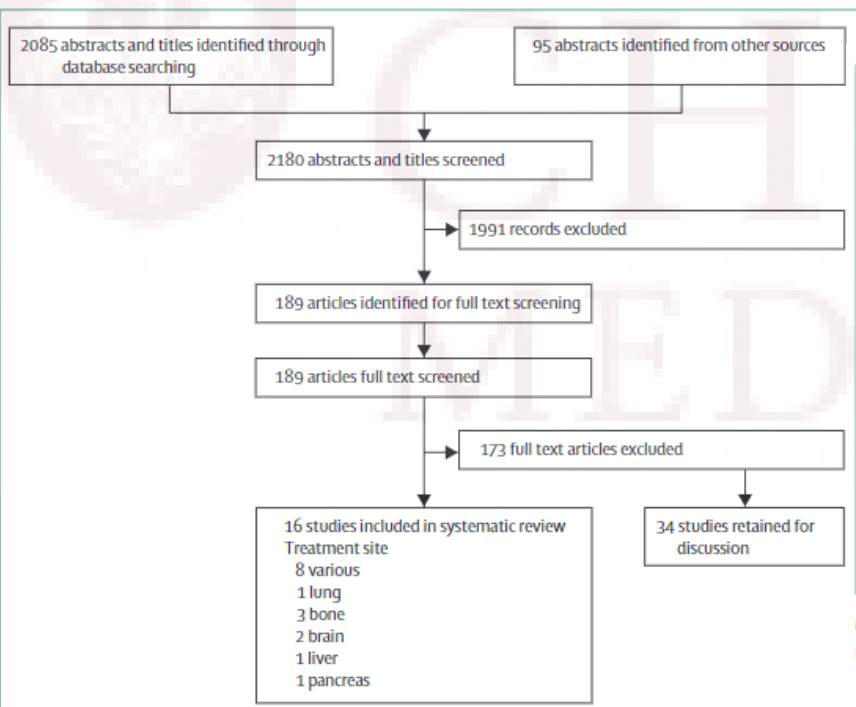


Figure 2: Forest plot of hazard ratios for overall survival or cancer-specific survival in studies comparing incomplete or no metastasectomy versus complete metastasectomy

Median survival 14 months without resection vs 40.8 months after resection

Guidelines

EAU Guidelines on Renal Cell Carcinoma: 2014 Update

Borje Ljungberg^a, Karim Bensalah^b, Steven Canfield^c, Saeed Dabestani^d, Fabian Hofmann^e, Milan Hora^f, Markus A. Kuczyk^g, Thomas Lam^h, Lorenzo Marconiⁱ, Axel S. Merseburger^g, Peter Mulders^j, Thomas Powles^k, Michael Staehler^l, Alessandro Volpe^m, Axel Bex^{n,}*



Recommendation

- Local resection of all RCC mets when medically feasible *except bone and brain
- Radiation therapy for bone and brain

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