

A PARATHYROID LOST, THEN FOUND...THEN LOST AGAIN?

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Interesting Case Session
36th Annual AAES National Meeting
Nashville, TN
May 17th, 2015




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DISCLOSURES




- None




INITIAL PRESENTATION 1998

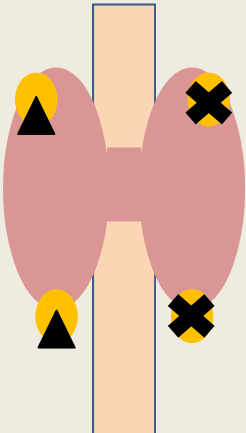


- 67F presents with Primary Hyperparathyroidism
- **Calcium 10.3, PTH 96, Vitamin D 25-OH 22**
- **24 hour Urine Calcium 209**
- Symptoms : severe arthralgias and bone pain
 - NO fractures
 - NO kidney stones
 - NO renal disease
- NO family history of endocrine disease
- NO history of parathyroid or neck surgery
- Sestamibi scan negative
- MRI and CT neck negative for adenomas





INITIAL OPERATION 1998





Pathology revealed **FOUR NORMAL GLANDS**
The patient had Persistent Hyperparathyroidism postop


CLINICAL COURSE


1998-2005



- 1998-2005: Calcium gradually increased from 10.3 to 11.8

	1998	2005
Calcium	10.3	11.8
PTH	96	325
Vitamin D 25-OH	22	16

- Patient developed progressively worsening osteoporosis

T-score location	2003
L-Spine	-3.4
Femur	-2.2
Forearm	-3.4

- 2005 - Surgery planned


CLINICAL WORK-UP


1998-2005

- 1999, 2001, 2003, 2005 - Sestamibi scans negative
- 2005 - CT neck negative
- 2005 - Selective venous sampling showed a step-up in the L superior and L inferior neck, but also in the R superior neck

RE-EXPLORATION 2005

1998


Pathology revealed NORMAL RU and LU parathyroid tissue
The patient had Persistent Hyperparathyroidism postop

A PARATHYROID LOST... CLINICAL WORK-UP 2005-2010


2005 - ^{99m}Tc 2010 - Sestamibi-scan was again negative athyroidism

With continued discrepant imaging findings, surgery deferred and the patient was subsequently started on Sensipar.

2009 - Octreotide scan suggested bilateral parathyroid hyperplasia




A PARATHYROID FOUND! 2010-2013




■ 2010-2013 - managed medically with Sensipar

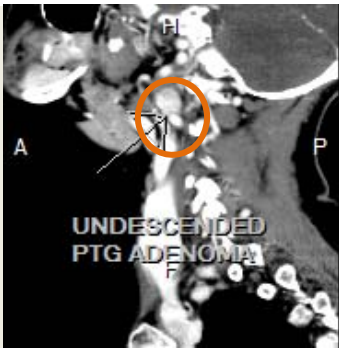
	1998	2005	2010	2013	T-score location	2003	2010
Ca+	10.3	11.8	11.4	12.1	L-Spine	-3.4	-3.7
PTH	96	325	411	345	Femur	-2.2	-2.3
Vit D 25-OH	22	16	11	7	Forearm	-3.4	-4.5

■ 5/2013 - 4D CT - showed a 1.7x 1.1 x 1.1 cm mass between the L internal carotid artery and jugular vein 0.8cm above the carotid bifurcation at the level of C2



A PARATHYROID FOUND! 2010-2013





**UNDESCENDED
PTG ADENOMA**

■ 6/2013 - **FNA of mass confirmed parathyroid tissue**

- Pathology - "syncytial sheet of small epithelial and oncocytic cells, favoring parathyroid origin"
- PTH wash = 17 pg/ml

■ 2/2014 - surgery scheduled



A PARATHYROID LOST AGAIN? 2014



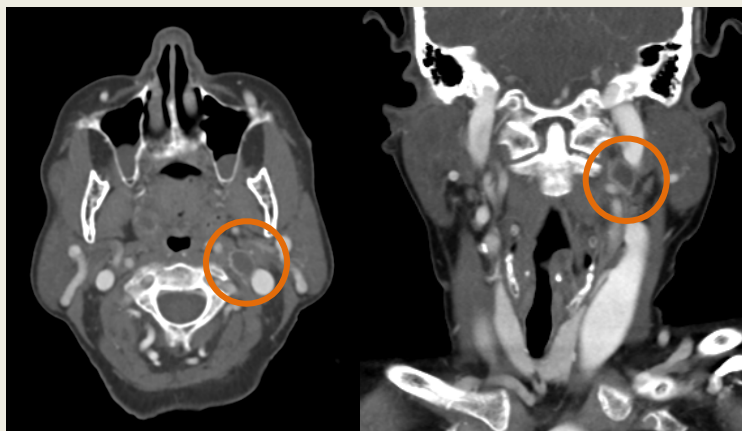
- 2/2014 - Before surgery was performed, the patient presented to ED with headaches, nausea/vomiting, & abdominal pain.
 - Calcium was 10.4
 - Stroke/meningitis workup was negative and she was discharged
- 2 weeks later she presented to ED with symptoms of severe hypocalcemia.
 - Calcium 6.9, iCalcium 0.84, PTH 59
 - Admitted for IV Calcium supplementation
- During her hospital stay, PTH down trended from 59 to 19
- Discharge labs were: Calcium 9, PTH 19, Vitamin D 25-OH 7

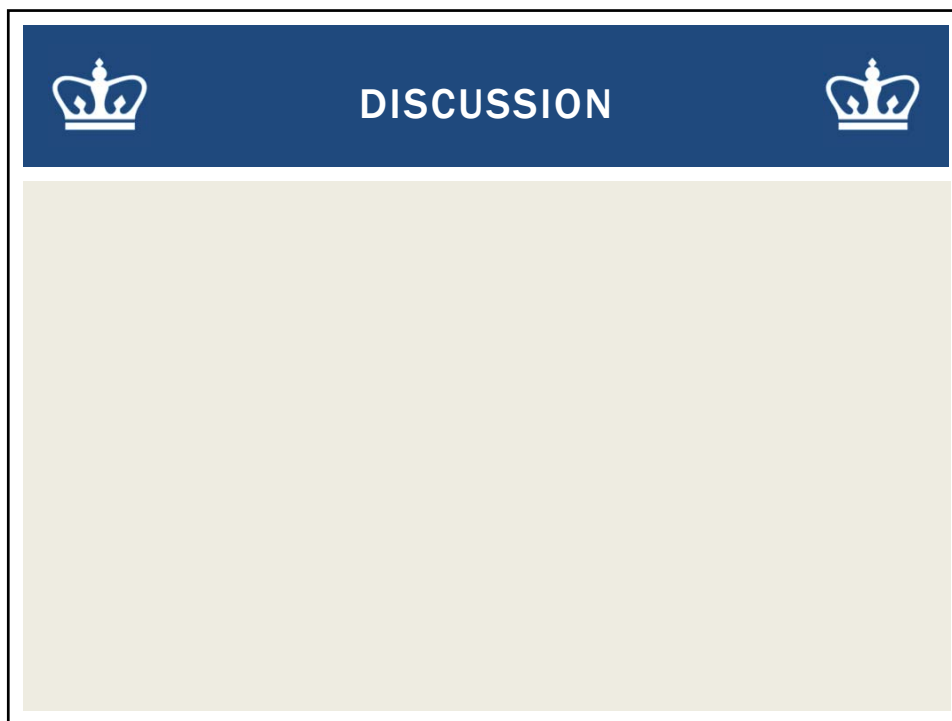


A PARATHYROID LOST AGAIN? 2014



- How did her persistent hyperparathyroidism spontaneously resolve and even lead to severe hypocalcemia?





The slide features a dark blue header with the title "SPONTANEOUS AUTO-INFARCTION OF A PARATHYROID ADENOMA" and "KEY TEACHING POINTS" in white capital letters, flanked by two white crown icons. The main content area is light beige and contains a list of bullet points.

- Auto-infarction of a parathyroid adenoma is a rare cause of spontaneous resolution of hyperparathyroidism
 - Permanent resolution vs. short-term remission
- Causes: FNA, spontaneous hemorrhage
- Associated symptoms:
 - Neck pain
 - Neck swelling/tenderness
 - Dysphagia
 - Sore throat
 - Acute symptomatic hypocalcemia
- Because regeneration of the parathyroid adenoma may occur:
 - Continued observation is recommended
 - Parathyroidectomy should still be considered
 - Some propose a period of observation after infarction to avoid acute inflammatory changes in the surgical bed



REFERENCES



- Cetani F, Ambrogini E, Faviana P, Vitti P, Berti P, Pinchera A, Marcocci C. Spontaneous short-term remission of primary hyperparathyroidism from infarction of a parathyroid adenoma. *J Endocrinol Invest.* 2004 Jul-Aug;27(7):687-90
- Lucas DG Jr, Lockett MA, Cole DJ. Spontaneous infarction of a parathyroid adenoma: two case reports and review of the literature. *Am Surg.* 2002 Feb;68(2):173-6.
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