

Thyroid Quiz

Soumik Goswami *MD (Medicine) DM (Endocrinology)*

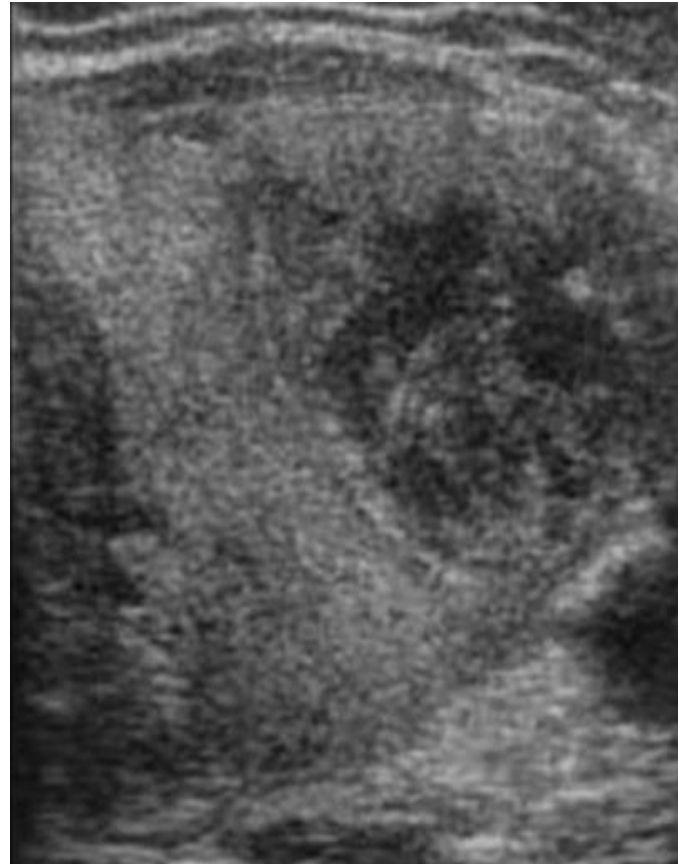
Q1. Name this individual



- Venetian merchant who chronicled his experiences in Book of the Marvels of the World
- While travelling in Turkestan in 1271, he wrote about the province of Karkan, “.....*the inhabitants of which are in general afflicted with swellings in the legs and tumors in the throat occasioned by the quality of the water they drink*”

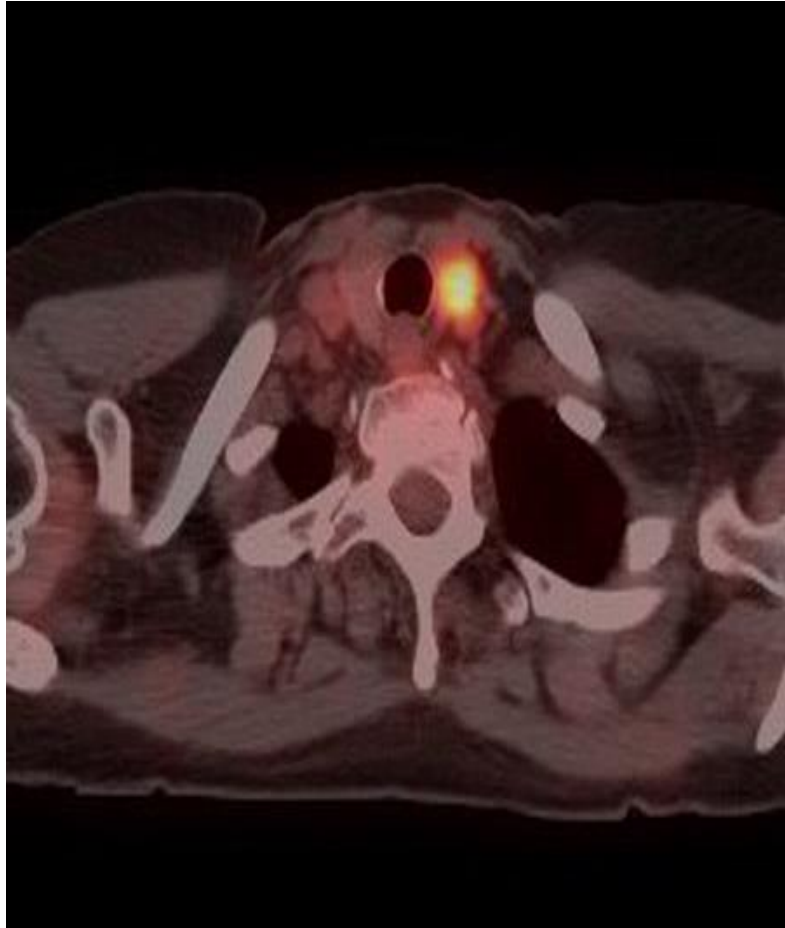
- A. Christopher Columbus
- B. Marco Polo
- C. Vasco Da Gama
- D. Ferdinand Magellan

Q2. 4 year boy with painful and tender lump in left side of neck. Overlying skin erythematous and warm. USG showed large irregular hypoechoic area. What is the underlying congenital anomaly?



- A. Thyroglossal cyst
- B. Pyriform sinus fistula
- C. Lingual thyroid
- D. Enlarged pyramidal lobe

Q3. The risk of malignancy in a thyroid incidentaloma with increased FDG uptake is...



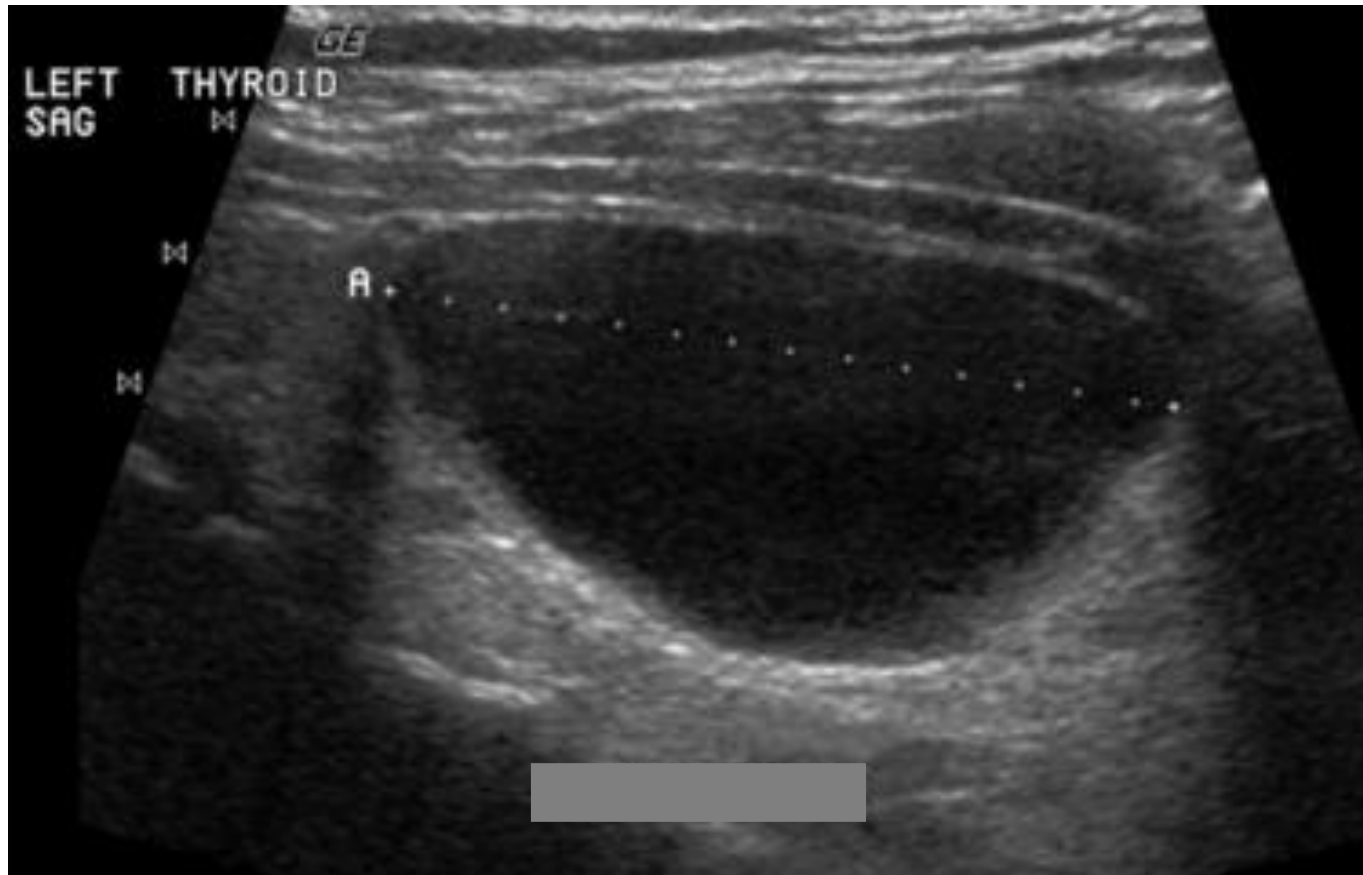
- A. 5-10%
- B. 10-20%
- C. 15-30%
- D. 25-50%

Q4. What is the likely diagnosis?

- A 10 year old boy presented with delay of linear growth and tooth eruption, slow speech, reduced muscle tone, impaired fine-motor coordination, and severe constipation. The boy had macrocephaly, heart rate and blood pressure were low and clinical signs of hypothyroidism such as dry skin and slow reflexes were present
- FT4 was low normal, FT3 was high normal, TSH was normal
- Total reverse T₃ was low
- Skull X ray showed thickened calvarium

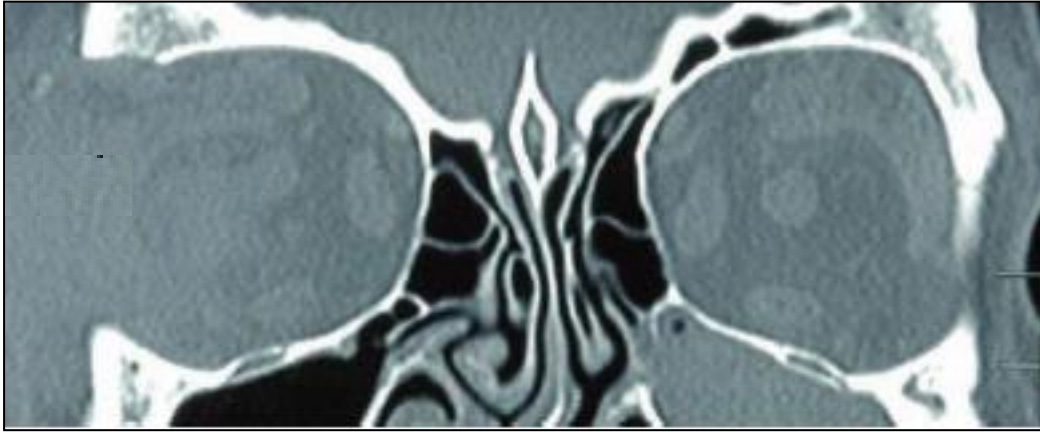
- A. RTH due to TR α mutation
- B. RTH due to TR β mutation
- C. Central hypothyroidism
- D. Iodine deficiency related hypothyroidism

Q5. 39 year woman presents with 3 cm nodule at lower pole of left thyroid lobe. Needle aspiration reveals watery, clear, colourless fluid. What is the probable diagnosis?



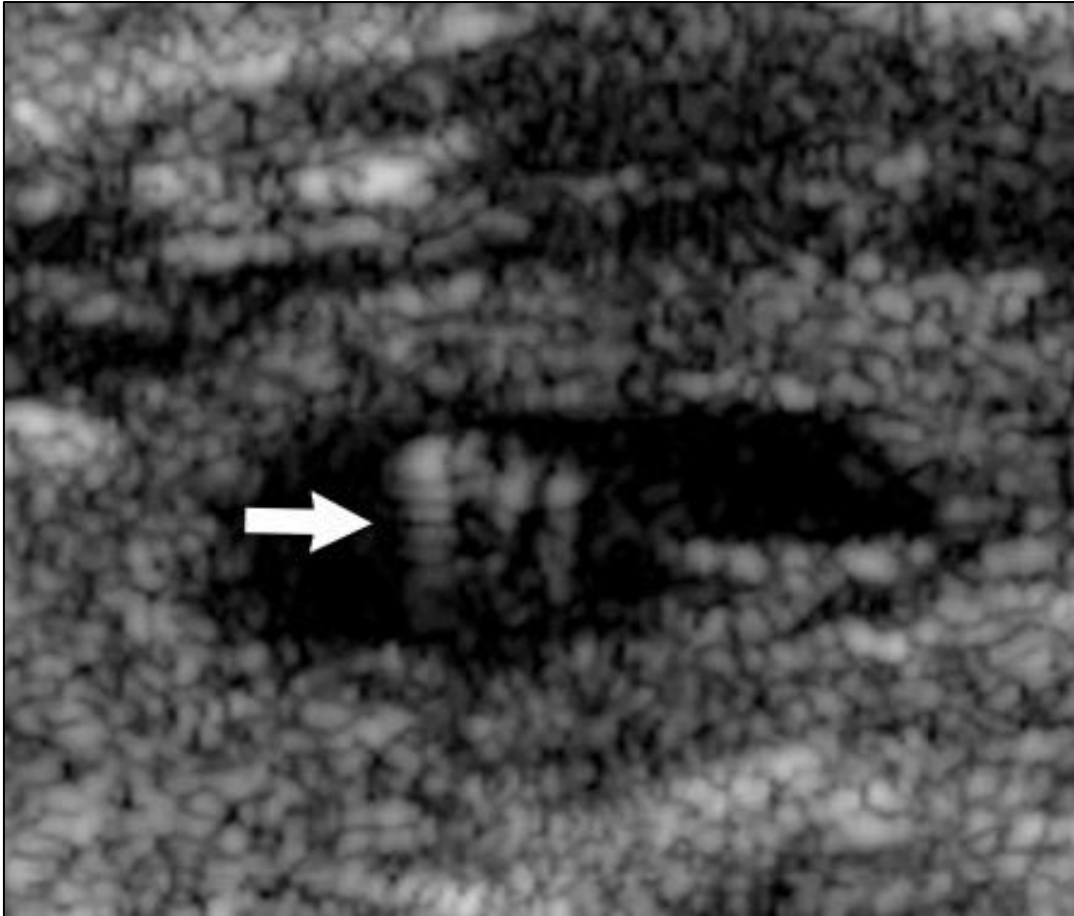
- A. Thyroid cyst
- B. Degenerated lymph node
- C. Parathyroid cyst
- D. MTC with degeneration

Q6. Measurement of proptosis is being done following a surgical intervention for TAO. Identify the instrument.



- A. Hertel exophthalmometer
- B. Naugle exophthalmometer
- C. Luedde exophthalmometer
- D. Graves exophthalmometer

Q7. The following is the USG finding in a thyroid nodule in a 40 y old man. What would be the TI-RADS level?



- A. TR1
- B. TR2
- C. TR3
- D. TR4

Q8. Identify the affected extraocular muscles in this patient with Graves' disease



- A. Right SR and Right MR
- B. Right IR and Right LR
- C. Right SR, Right MR and Right LPS
- D. Right IR, Right LR and Right LPS

Q9. What is the impact of postprandial state on the thyroid function test?

- A. Increase in FT4 and decrease in TSH
- B. Decrease in FT4 and decrease in TSH
- C. Increase in FT3 and decrease in TSH
- D. Decrease in FT3 and decrease in TSH

Q10. All of the following can be used for the treatment of very symptomatic patients with thyrotoxicosis factitia except

A. Methimazole

B. Propranolol

C. Cholestyramine

D. Iopanoic acid

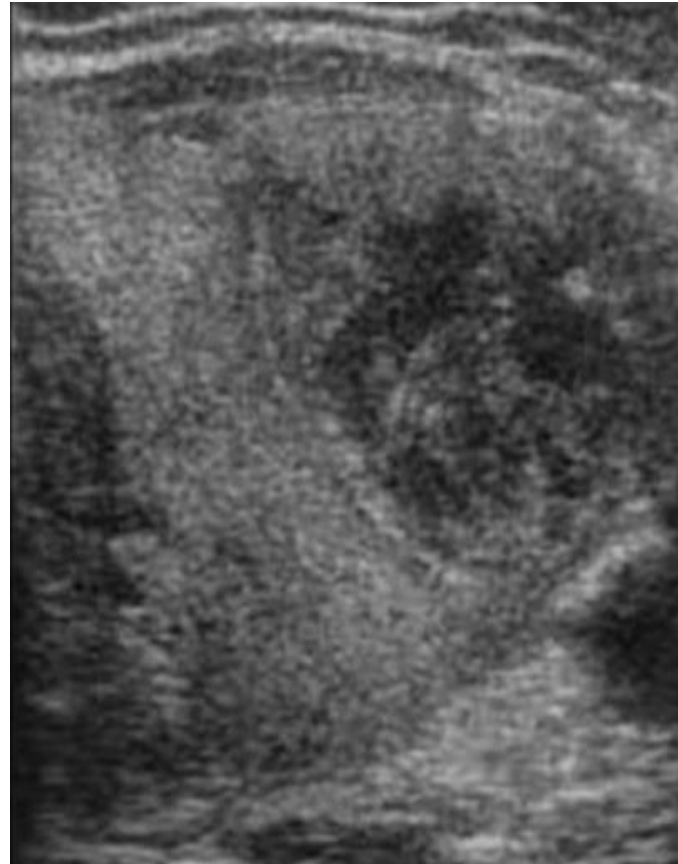
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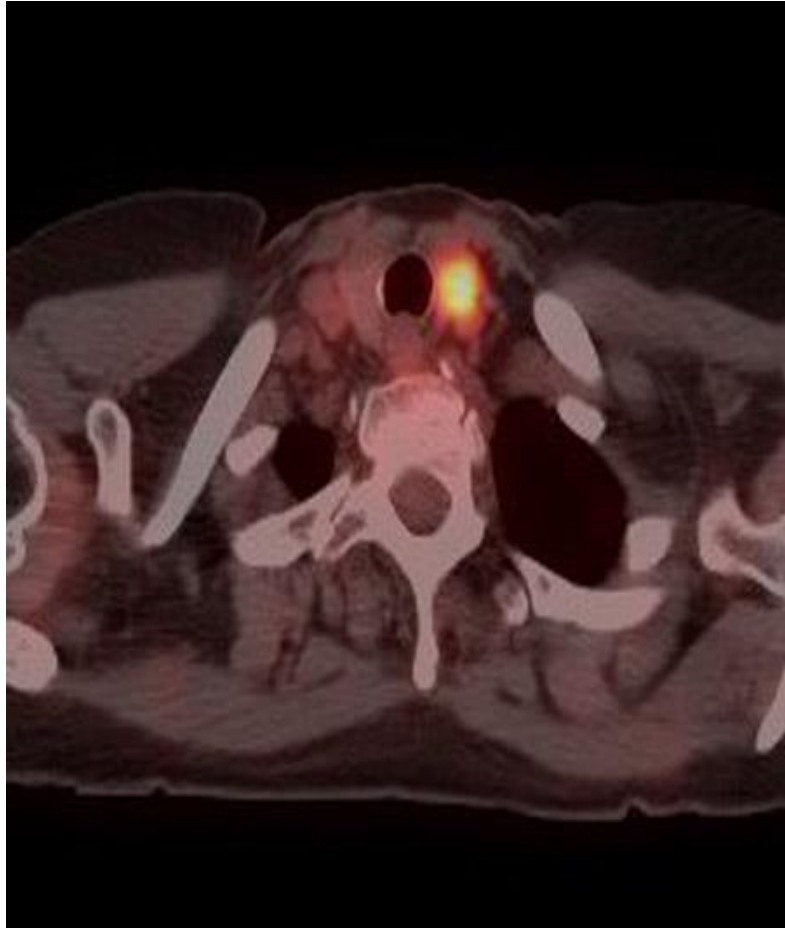
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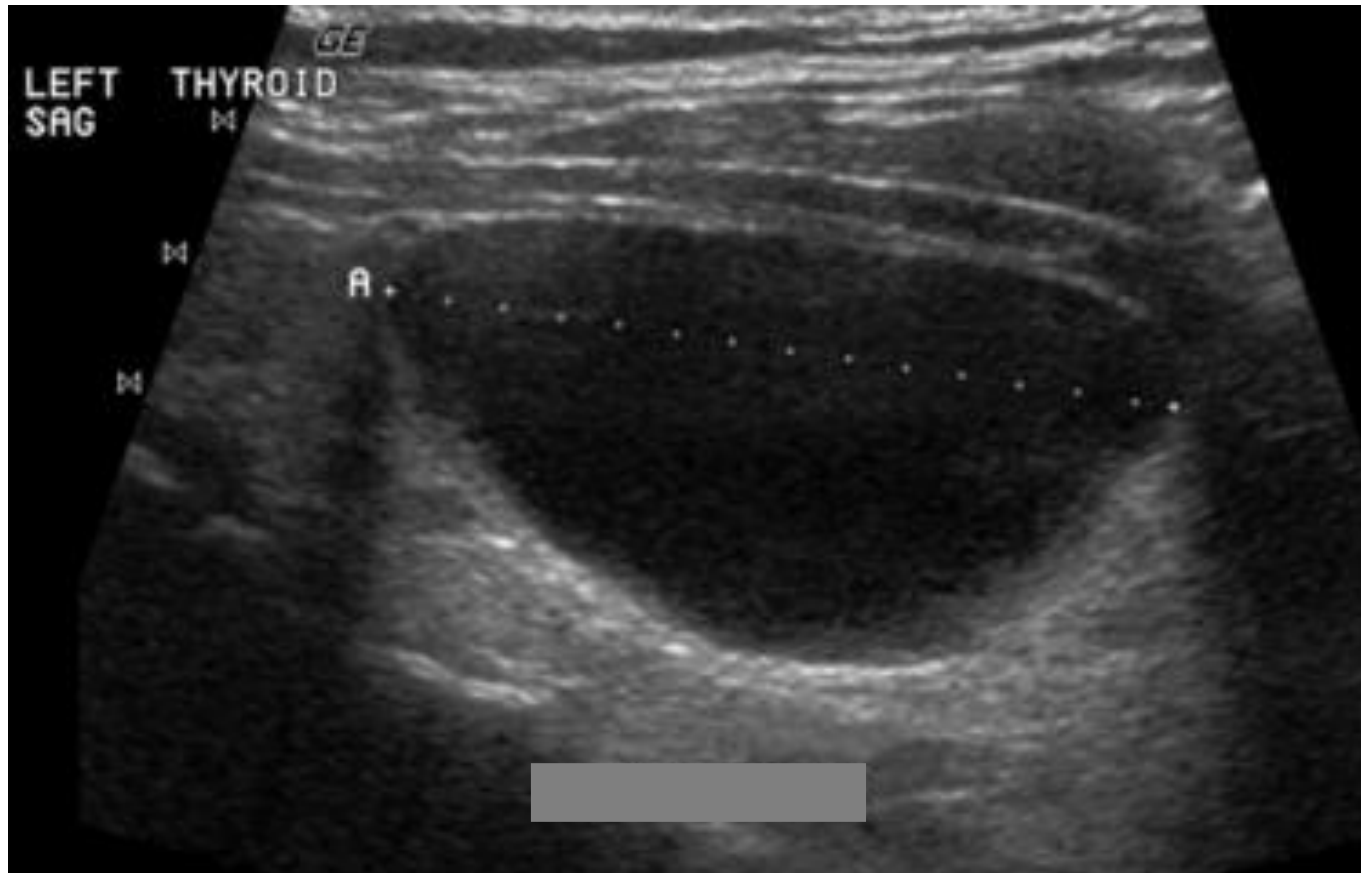
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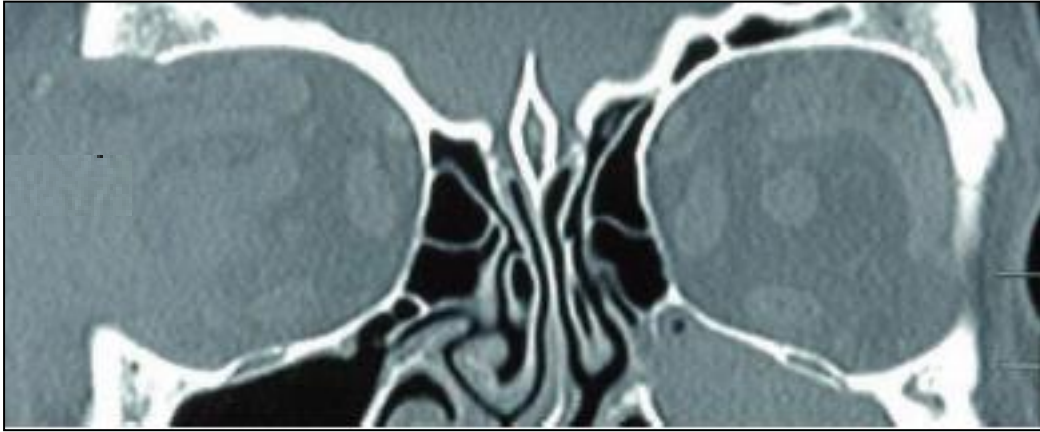
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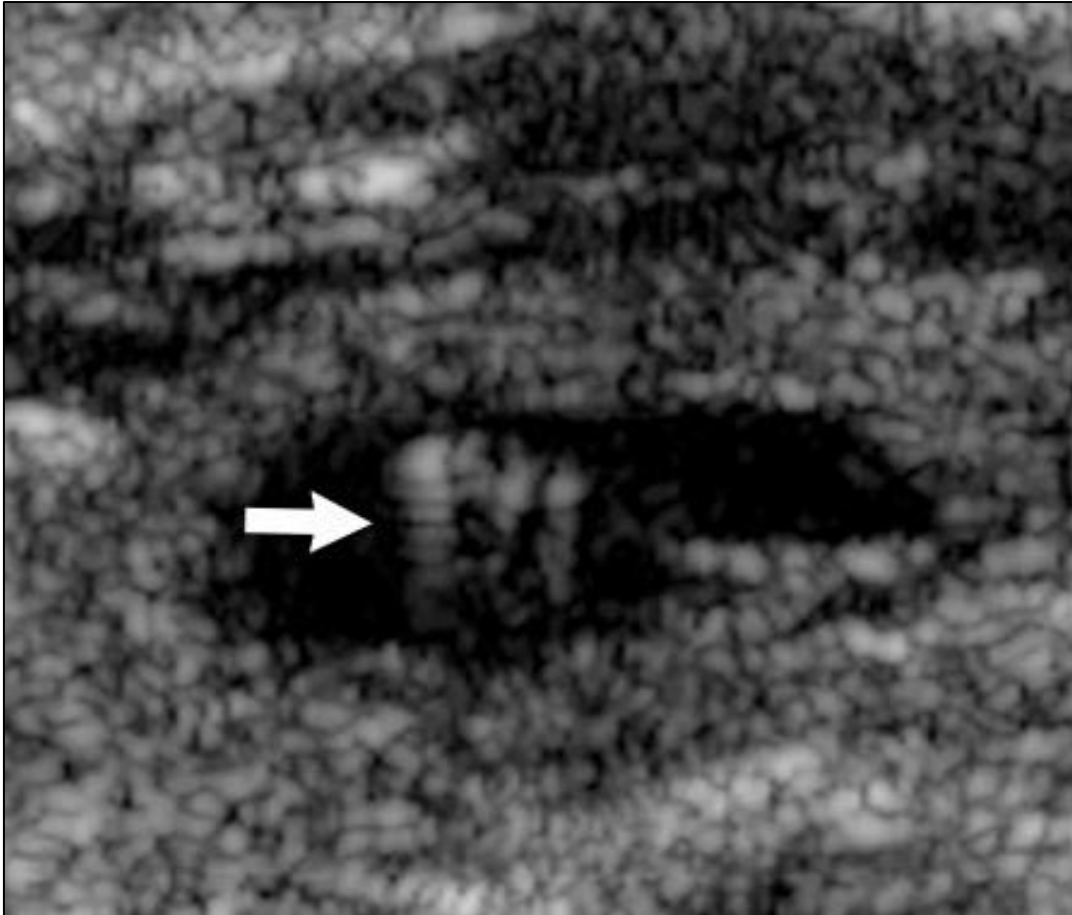
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Fasting versus postprandial state: Impact on thyroid function testing Futela D, Maheswari K, Khanna T. Thyroid Res Pract 2021;18:61-6.

ABSTRACT

Context: Thyroid dysfunctions are common health problems worldwide. Thyroid function tests (TFTs) are the mainstay of diagnosis. A common question by labs and clinicians is whether food intake makes a clinically significant difference for TFTs.

Aims: We aimed to assess the effect of fasting and postprandial state on thyroid-stimulating hormone (TSH), free T3, and free T4.

Settings and Design: A cross-sectional study was conducted. Sixty patients were prospectively selected.

Subjects and Methods: Patients were divided into two groups: Group A (known case of thyroid disorder and on medication) and Group B (no prior history of thyroid dysfunction). Two blood samples were collected from each patient, before and after breakfast, with a gap of 2 h. Serum samples were analyzed for TSH, free T3, and free T4.

Results: Mean (\pm standard deviation) TSH values (mIU/L) in fasting state were 2.38 ± 1.88 and in postprandial state were 2.08 ± 1.65 . A statistically significant postprandial decline was observed in TSH values (mean difference: -0.30 mIU/L) and free T3 (mean difference: -0.21 pmol/L), in both groups.

Conclusions: TFT results were altered in a statistically significant manner after food intake. Multiple studies have reported a similar postprandial decline in serum TSH. This may impact the diagnosis and management of thyroid patients, especially where minor changes in TSH levels are clinically relevant.

Keywords: Fasting, postprandial period, thyroid function tests, thyrotropin

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