

Bilobar Thyroid Pyramidal Lobe: Original Image

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A 21-year-old woman with a history of palpitation, weight loss and sweating was referred for thyroid scintigraphy. On physical examination, the thyroid gland was palpable. Serum levels of thyroid-stimulating hormone were 0,23 uIU/mL (normal range: 0,34-5,6); Free T3: 4,0 pg/mL (normal range: 2,5-3,9) and free T4 was 1,3 ng/dL (normal range: 0,58-1,6). On Tc-99m pertechnetate scintigraphy, thyroid revealed diffuse increased radioactivity uptake of the thyroid gland with bilobar pyramidal lobe (one of them originating from the right lobe upper pole, and the other from left lobe inferior pole) and background activity was suppressed (Figure1a). Thyroid scan with radioiodine also showed bilobar pyramidal lobe, localized on the superior site of the left lobe and on the inferior site of the right lobe (Figure1b). Ultrasonographic examination confirmed the presence of the bilobar pyramidal lobes (5.89x3.78 mm on the left side and 6.59x6.43 mm on the right side) (Figures 2a and 2b).

Embryonic remnants of the thyroglossal tract can remain as the pyramidal lobe which can be visualized easily as a narrow projection of thyroid tissue using scintigraphy.¹ For thyroid surgery, the detection of embryonic remnants of thyroid descents is important because if the pyramidal lobe is not totally removed at surgery, it may undergo hypertrophy and hyperplasia causing a recurrence of the disease.^{1,2} A cadaver study showed that a pyramidal lobe was found in 55% of individuals.³ But to the best of our knowledge, there are only a few reports demonstrating the existence of more than one pyramidal lobes.⁴⁻⁶ Such an entity should be kept in mind during reporting thyroid scintigraphy and radiological correlation should be made in order to differentiate from other pathologies of the thyroid gland.

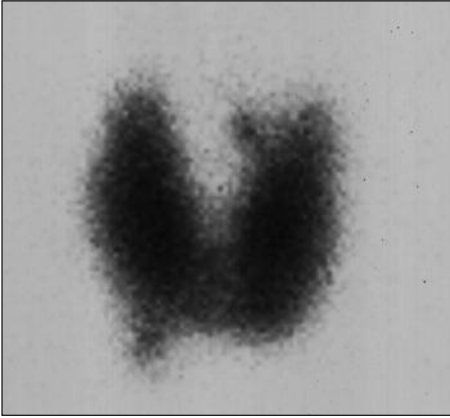


FIGURE 1a: Visualisation of double pyramidal lobes on pin-hole thyroid imaging with Tc-99m pertechnetate.



FIGURE 1b: Pyramidal lobes demonstrated on thyroid scan with low dose I-131.

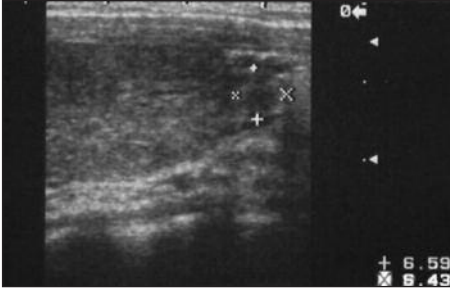


FIGURE 2a: Left pyramidal lobe on the left side demonstrated by ultrasonography.

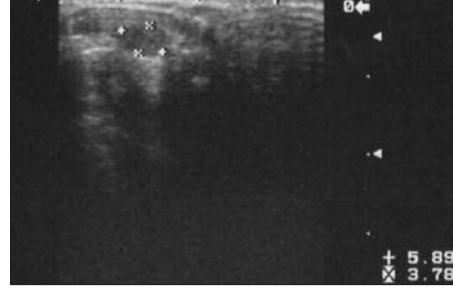


FIGURE 2b: Ultrasonographic image of pyramidal lobe on the right side.

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