



INTRATHYROIDAL ECTOPIC THYMIC TISSUE MIMICING A THYROID NODULE: A REPORT OF THREE PEDIATRIC CASES

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INTRODUCTION

The descent of the thymus and thyroid are closely related because of the proximity of the thyroid diverticulum to the 3rd branchial pouch. During the migration, thymic remnants can be left along the path and ectopic thymus tissue can be detected in various locations from the mouth or the base of the skull to the superior mediasteneum.

We report here three cases of intrathyroidal ectopic thymus tissue who presented as thyroid nodules in different ages.

CASES

Case 1: A 10-year-old girl referred to our clinic because of guatr. She had stage 2 guatr and palpable thyroid nodule in the right lobe, and no regional lymphadenopathy. Her TFT were normal. Thyroid US showed a hypoechoic calcified nodule (10x4 mm) in the right lobe (Fig 1a). Fine-needle aspiration biopsy (FNAB) was recommended, but the parents preferred to excision of the nodule.

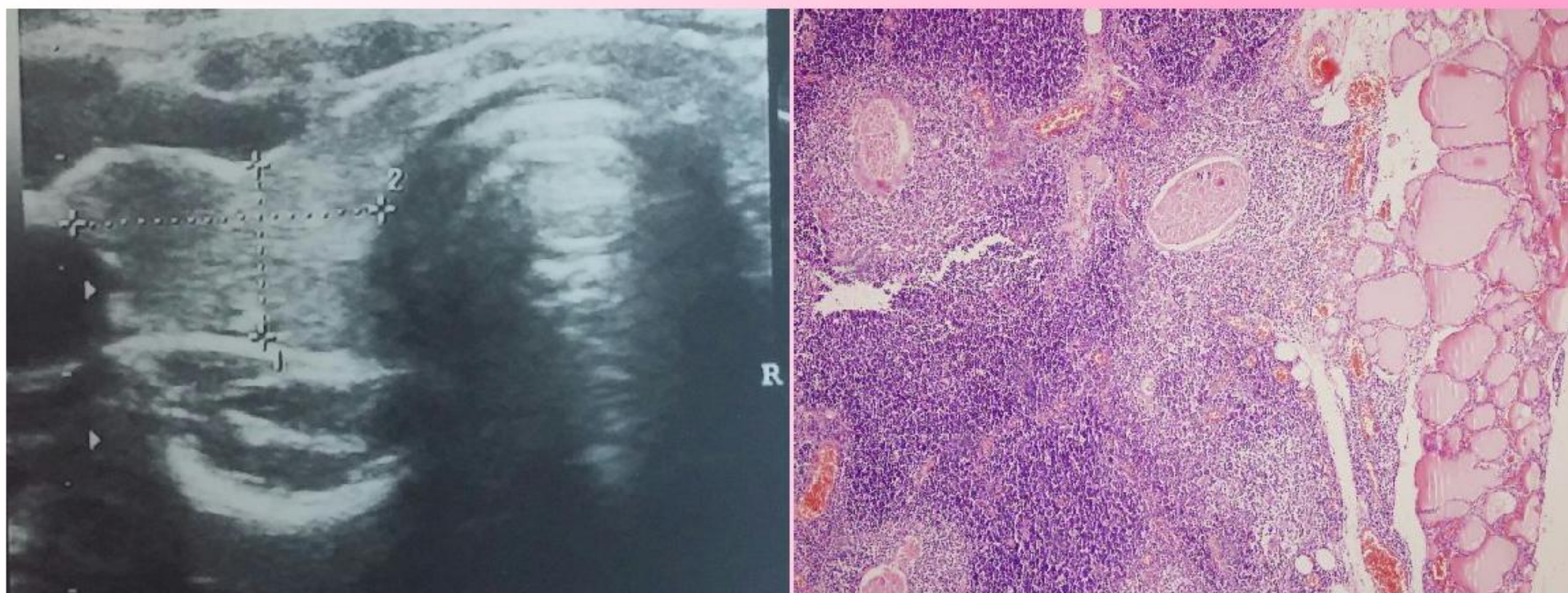


Figure 1a and 1b: Thyroid US showed a nodule in the right lobe (1a), ectopic intrathyroidal thymus tissue with Hassall's corpuscles on microscopic examination (1b).

Right lobectomi was performed and pathological examination showed an ectopic intrathyroidal thymus tissue (Fig 1b).

Case 2: A 7-month-old baby was referred to our clinic because of thyroid nodules which were detected incidentally. She was euthyroid, repeated US showed a hypoechoic nodule (7x5x9 mm) with multiple hyperechoic areas in the left lobe and a similar hypoechoic nodule in the right lobe which were reported as ectopic thymic tissues (Fig 2a-b). FNAB was not done because it was an invasive diagnostic procedure. During one year follow-up, nodular enlargement was not seen.

Case 3: A 4-month-old baby was referred to our clinic because of suspected thyroid nodule which was detected during neck US for torticollis. His TFT was normal and repeated thyroid US showed an intrathyroidal ectopic thymic tissue. There was no nodular enlargement during 18-month follow-up. FNAB was not performed. During his one year follow-up, nodular enlargement was not seen.

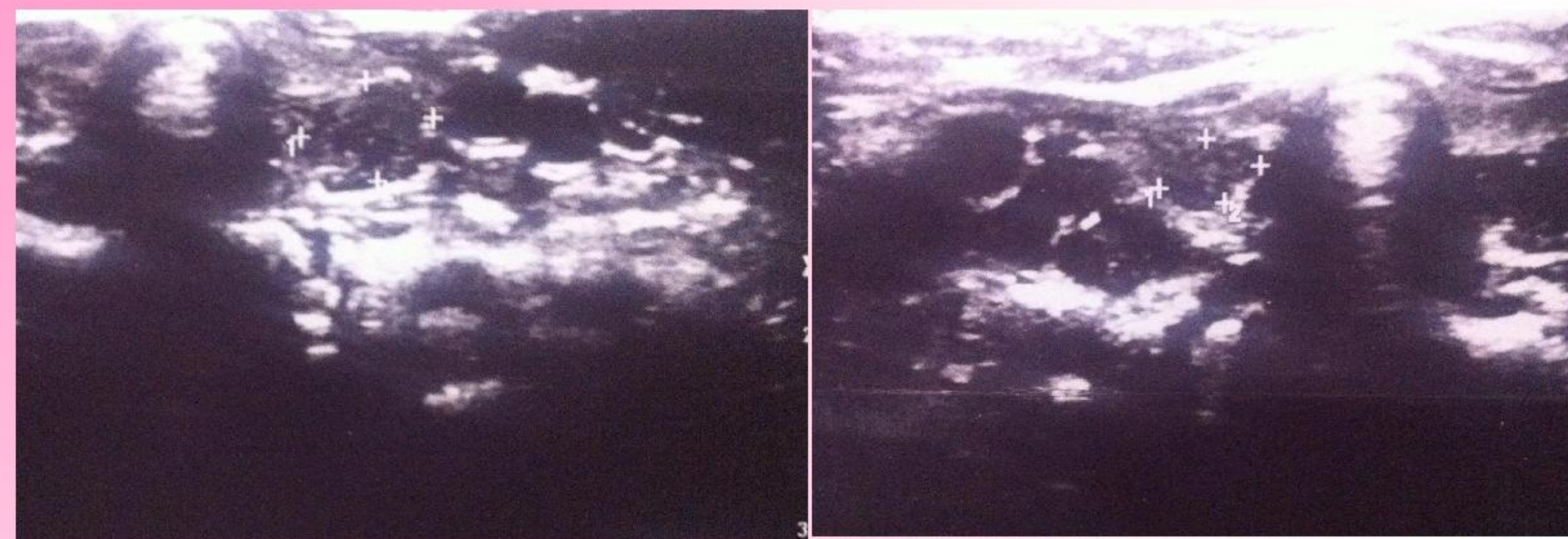


Figure 2a and 2b: Transverse gray-scale sonography of the thyroid show a heterogeneous and irregular hypoechoic mass within the left (1a) and right (1b) thyroid lobes.

CONCLUSIONS

- Solitary thyroid nodules are rare in children compared to adults, however, the probability of malignancy in children is higher than that in adults. Therefore, differential diagnosis of thyroid nodules is important in children.
- Ectopic thymic tissue can be diagnosed and followed-up safely by US.
- US findings are tipic for thymic tissue with a hypoechoic pattern with multiple regular linear and punctate bright echogenicities representing connective septa and blood vessels within the septa. If US results are inconclusive and further evaluation is needed, biopsy may be useful for confirmative diagnosis.
- The increasing use of thyroid US in children may result in an increased detection of intrathyroidal thymic inclusions as an embryologic anomaly.

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