INTRODUCTION

The relatively increasing use of ultrasound (US) examination in children and advances in imaging technologies may increase the detection of more thyroid lesions than there used to be. Intra-thyroidal ectopic thymus (IET), a benign lesion due to aberrant thymic migration during embryogenesis, is often discovered incidentally.

AIM

We aimed to present the US features, diagnostic methods, and follow-up of IET in children and adolescents.

METHOD

We searched our database of patients under 18 years old with a nodular thyroid lesion detected by US, between January 2007 and December 2019. In 30/255 (11.7%) IET was diagnosed. We retrospectively studied the clinical and US findings: the reason for referral, age, duration of follow-up, levels of thyroid stimulating hormone (TSH), free T4 and thyroid Peroxidase antibody (TPOAbs), US features of IET, and interventions (FNA and surgery).

RESULTS

The mean age at the first examination: 5 years (0.1-12.2, median 5.6).

The indications that led to the initial US: cervical lymphadenopathy (n=6), congenital hypothyroidism (n=2), elevated serum TSH concentration (n=4), 'thyroid nodule' found by US performed elsewhere (n=17), and follow-up imaging after hemato-oncological cancer treatment (n=1).

None of the children had a palpable thyroid nodule or clinical evidence of thyroid malignancy.

We observed 34 IETs in 30 patients as four patients had IETs bilaterally. 19 IETs (55.9%) were in the left lobe, and most (79%, 27/34) in the midportion.

The mean longest diameter of IET: 6.4 mm (2.5-21, median 4.5).

88% (30/34) were <1 cm. 85.3% (29/34) had well-defined margins.

CONCLUSIONS

IET may be more common than previously thought and should be considered in the differential diagnosis of incidental thyroid lesions and nodules in children and adolescents, keeping in mind that the US characteristics of IET can suggest a malignant nodule.

Awareness of this entity with long-term follow-up can reduce the need for FNA or unnecessary surgery.

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REFERENCES


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