

中文題目：甲狀腺內胸腺異位

英文題目：A 2-year-old female toddler with intrathyroidal ectopic thymus

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Introduction: The prevalence of thyroid nodules in pediatric population is 0.2% - 2%. Intrathyroidal ectopic thymic tissue is a rare congenital variant and differential diagnosis of thyroid lesion. Most cases were detected incidentally. We described a case report of thyroid lesions in a 2-year-old female toddler, which revealed ultrasonographic feature of thyroid malignancy. After reviewing of articles, intrathyroidal ectopic thymus is highly suspected.

Case presentation: A 2-year-old female toddler was born at 35 + 2/7 weeks. She has primary hypothyroidism diagnosed by newborn screening. There was no previous irradiation of the neck. She received levothyroxine supplement and now her thyroid status is euthyroid. Neck ultrasonography showed a thyroid gland of normal size. Some heterogeneous, very hypoechoic tissues with punctate echogenic foci were incidentally identified at bilateral lowest thyroid and the site below thyroid.

Discussion: Thymus originates from the third pharyngeal pouches and moves medially and caudally to superior mediastinum during embryogenesis. The developing path goes through the thyroid and thus makes the intrathyroidal ectopic thymus possible. The prevalence of intrathyroidal ectopic thymus in children is 0.91-0.99% according to reported study. Ultrasonography is noninvasive and does not expose patient to ionizing radiation. As mentioned above, ultrasonography is the preferred modality for investigate ectopic intrathyroidal thymus in children. The intrathyroidal ectopic thymus mimics thyroid nodule under ultrasound examination. Its localization tends to be mid-low thyroid. It has well-defined border, a hypoechoic pattern and internal punctate echogenic foci. The punctate echogenic foci were formed by fat and might be misinterpreted as micro-calcification of malignant thyroid nodules. Routine visualization of the mediastinal thymus benefits differentiation. If the diagnosis of intrathyroidal ectopic thymus is uncertain under ultrasound examination, fine-needle aspiration or additional imaging study should be considered. In our case, the thyroid lesions were located at bilateral lowest thyroid and extend to the site below thyroid. These lesions had well-defined border, hypoechoic pattern and punctate echogenic foci. Compared to the ultrasonic features mentioned above, intrathyroidal ectopic thymus is highly suspected. In conclusion, intrathyroidal ectopic thymus is rare and might be confused with thyroid malignancy. Clinicians should regard it as a differential diagnosis of pediatric thyroid nodules and be familiar with its ultrasonic features. If the diagnosis is uncertain under ultrasonography, further investigation like fine-needle aspiration or additional imaging study should be performed.

Conclusion: TAFRO syndrome is rare and might be ignored in the clinical setting, and the current