

Title Page

Clinical Picture:

A New Lateral Neck Mass in a 63-year-old Man with Multi-nodular Goiter

Nguyen T. Nguyen MD¹; Daniel P. Neelon MD², Michael I. Orestes MD³,

Mohamed K.M. Shakir, MD¹; Thanh D. Hoang, DO¹

1. Division of Endocrinology, Department of Medicine

2. Department of Pathology

3. Department of Otolaryngology

Walter Reed National Military Medical Center, Bethesda, Maryland, USA.

Walter Reed National Military Medical Center, 8901 Rockville Pike, Bethesda, Maryland 20889

Corresponding Author: Dr. Thanh D. Hoang

Division of Endocrinology, Walter Reed National Military Medical Center,
8901 Wisconsin Ave,
Bethesda, MD 20889.

Email: tdhdthanh@gmail.com

Key Clinical Message:

Ectopic thyroid tissue off the midline is rare and typically malignant. We describe a benign lateral ectopic thyroid mass in a 63-year-old man with nontoxic multinodular goiter.

Key words:

Ectopic thyroid tissue, multiple nodular goiter, lateral neck mass

Clinical vignette:

A 63-year-old male with a history of multiple nodular goiters (MNG) had benign fine needle aspiration (FNA) of nodules in bilateral lower lobes in 2017. He presented with a new 1.8-cm mass in the right neck for the last 6 months. The mass was confirmed on neck ultrasound (Fig1) and CT scan (Fig2). Thyroid ultrasound showed a 4.6-cm nodule in right middle lobe and a 2.2-cm nodule in left lower lobe. He denied compressive symptoms. The patient has no family history of thyroid cancer and personal history of neck irradiation. Repeat FNA of the 4.6-cm right nodule showed FLUS with negative thyroseq and FNA of the 2.2-cm left nodule was benign. Biopsy of the 1.8-cm right lateral neck lymph node (level V) showed features suggesting benign thyroid cells without evidence of malignancy (Fig3). Thyroid scan did not reveal lateral neck mass. Due to a great concern for malignancy, he underwent resection of the lateral neck mass with frozen section which excluded malignancy. Simultaneously, he had right thyroidectomy because of concerning about the large right nodule which was also benign in histology.

The ectopic thyroid tissue (ETT) refers to any thyroid tissue found outside of the area from the second to fourth tracheal cartilages. It is a very rare condition with the prevalence of 1 in 100,000-300,000 in general population and 1 in 4,000-8,000 in patients with a pre-existing thyroid disorder (1). ETT is usually located along the midline from the base of the tongue (90%) to the mediastinum (1%) and rarely found as a lateral neck mass. When an ETT is detected in aberrant places, the likelihood of malignancy is high. Moreover, it is challenging to determine whether ETT in neck lateral to the jugular vein is a benign condition or metastasis disease (2). The preoperative diagnostic tests include ultrasound and FNA cytology. Any disease affecting the thyroid gland may also involve the ETT, including malignancy. In the case of the MNG along with ectopic tissue, the thyroidectomy and excision of the ETT can be a satisfactory treatment (3).

Authorship List:

Nguyen T. Nguyen, MD - Author
Daniel P. Neelon, MD - reviewer, providing pathological slides
Michael I. Orestes - reviewer
Mohamed K.M. Shakir, MD - reviewer
Thanh D. Hoang, DO- reviewer, editor

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CONFLICT OF INTEREST

None to declare.

ETHICAL APPROVAL

This manuscript has been reviewed and approved by the IRB and Public Affairs Office.

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Abbreviations:

MNG: Multiple nodular goiter

ETT: ectopic thyroid tissue

FNA: Fine needle aspiration

Figures Legend:

Figure 1 - ultrasound showing right lateral neck mass

Figure 2 – neck CT showing right lateral neck mass, outside thyroid gland

Figure 3 – FNA of the right lateral neck mass showing benign follicular thyroid cells