DOI: 10.5152/TurkThoracJ.2019.306

[Abstract:0591] PP-126 [Accepted: Poster Presentation] [Thoracic Surgery]

Videothoracoscopic Resection of Ectopic Mediastinal Thyroid: Three Case Reports

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Introduction: Ectopic thyroid tissue (ETT) is a rare cause of mediastinal masses and it accounts for only 1% of mediastinal tumors. ETT could be found anywhere along the path of initial embryologic descent of the thyroid gland from the floor of the primitive foregut to its normal pre-tracheal position. Most ectopic thyroid tissues are found along this path of decent, while about 10% have been found in other anatomical locations. Through a review of three cases, the clinical-diagnostic, and therapeutic aspects of ectopic thyroid tissue are discussed to highlight the main presentations of this uncommon disease.

Case 1: 68-year-old women presented with an anterior mediastinal mass, incidentally detected on a computed tomography (CT) scan. Videothoracoscopic surgery was performed and ectopic thyroid gland of 5x4 cm in diameter resected.

Case 2: 64-year-old women presented with a middle mediastinal(posterior tracheal) mass, incidentally detected on a computed tomography (CT) scan. Videothoracoscopic surgery was performed and ectopic thyroid gland of 6x5 cm in diameter resected.

Case 3: 70-year-old women presented with a middle mediastinal(right paratracheal) mass, incidentally detected on a computed tomography (CT) scan. Videothoracoscopic surgery was performed and ectopic thyroid gland of 4x3 cm in diameter resected.

Conclusion: As a result of abnormal gland migration, ETT could be found anywhere along the path of embryologic descent of the thyroid gland. Ectopic thyroid tissue in the thorax with no connection to the cervical thyroid gland is very rare and we could find only a small number of cases of mediastinal ectopic thyroid tissues but we could not find any case series in the literature. Ectopic thyroid tissue should be considered in the diagnosis of mediastinal masses. A thyroid mass usually demonstrates high CT density on plain scan due to the iodine content as well as intense and sustained intravenous contrast enhancement. Generally, malignant transformation in ETT is very rare but these masses should be resected surgically due to the risks of malignant transformation, progressive enlargement, hemorrhage within the mass causing compression of neighboring vital mediastinal organs. Videothoracoscopic surgery is safe and feasible procedure for mediastinal ETTs and we applied it in our all cases without any complication. Mediastinal ectopic thyroid is an extremely rare condition. Although entirely intrathoracic ectopic thyroids are rare, they must be considered in the differential diagnosis of all mediastinal masses and surgical excision must be applied in proper cases.

Keywords: Ectopic thyroid, mediastinal mass, videothoracoscopic surgery