

# AN ABERRANT THYROID MASS IN THE POSTERIOR MEDIASTINUM : A CASE REPORT

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**Abstract** - A middle aged woman with the chief complaints of dyspnea and chest pain was referred to our center. Chest X-rays and computed tomogram revealed a mass in the posterior mediastinum, which was excised in toto. Pathological report of the specimen labelled it as normal thyroid tissue (aberrant thyroid).

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**Key Words:** Aberrant, thyroid, posterior mediastinum

## INTRODUCTION

Aberrant thyroid tissue in the mediastinum is an unusual finding which is more commonly found in the superior and anterior mediastinum (1,2). There have been several reports of intracardiac and intratracheal thyroid tissue (3,4,5,6). Also goiters have rarely been reported in the posterior mediastinum. Clinical findings in this situation are related to the adjacent organs such as the trachea (7,5,2). Signs and symptoms include dyspnea, cough, wheezing, stridor, and dysphagia due to the compressive effect of the mass on the esophagus. In this article we present a case of aberrant thyroid tissue located in the posterior mediastinum in a middle aged woman, presenting with the signs and symptoms of pressure effects on the trachea.

### Case report

A 50 year old woman was admitted at Imam Khomeini Hospital, Tehran for her complaints dyspnea, chest pain and sorethroat. All her problems had started about 4 years ago when she developed sudden severe respiratory distress following which she became speechless for 3-4 hours. Gradually this complaint subsided and was relatively resolved, but thereafter she developed chest pain, sore throat, headache, dysphonia and nonproductive cough. These symptoms continued and developed chronicity with time. The patient also developed exertional dyspnea.

In her past medical history she had no significant findings. She had had seven deliveries, six live and one expired due to rheumatic heart disease. In her review of systems the positive findings included weakness, weight loss about 3 - 4 kgs in several months, nausea and vomiting.

Physical and systemic examination revealed no

positive findings except for palpable firm nodules in the right and left lobes of the thyroid gland. Chest X - ray (PA view) (Fig.1) showed a well demarcated and sharply outlined soft tissue opacity in the right paramediastinal area and a lateral view (Fig.2) localized it in the posterior middle mediastinum. A computed tomogram (Fig.3) showed a well demarcated mass with a sharp border in the right paramediastinal space and posterior to the superior vena cava (SVC). Thyroid scan showed a multinodular goiter with cold nodules (fig.4) and FNA further confirmed it. Laboratory data proved to be normal except for the pulmonary function tests: FEV1 = 0.82 lit. : %36, FVC = 1.15 lit.: %43, FEV1/FVC = %71, VC = 1.69 lit. : %75.

A right posterolateral thoracotomy incision was given. On exploration a single mass was found posterior to the SVC and anterior to the esophagus. The mass was encapsulated and it's capsule was excised.

The patient had no specific problems postoperatively, and was discharged in good general condition after 10 days. During the several month follow - up of the patient she maintained her condition upon discharge and was asymptomatic.

## DISCUSSION

Review of the literature showed that the rate of cervical thyroid with extension to the substernal area (downward growth) was between 2% to 25% (90% in the anterior and superior mediastinum)(1,2,8).The incidence of aberrant thyroid has been reported as rare in the posterior mediastinum but isolated aberrant thyroid tissue in the retrosternal area has been reported as very rare and forms about 1% of total mediastinal masses (8,1). Peak incidence of this disorder is in the 6th & 7th decades. Females are affected more often.

When a thyroidal mass is present in the mediastinum, the symptoms occuring are usually due to pressure effects on the trachea (7,5), but rarely they may primarily be due to thyrotoxicosis. After detection of a well-demarcated and sharply outlined soft tissue mass on the X-ray, it's exact location is best evaluated by performing a CT scan of the thorax (9). In asymptomatic patients with anterosuperior or posteriosuperior masses, radionuclide thyroid scan

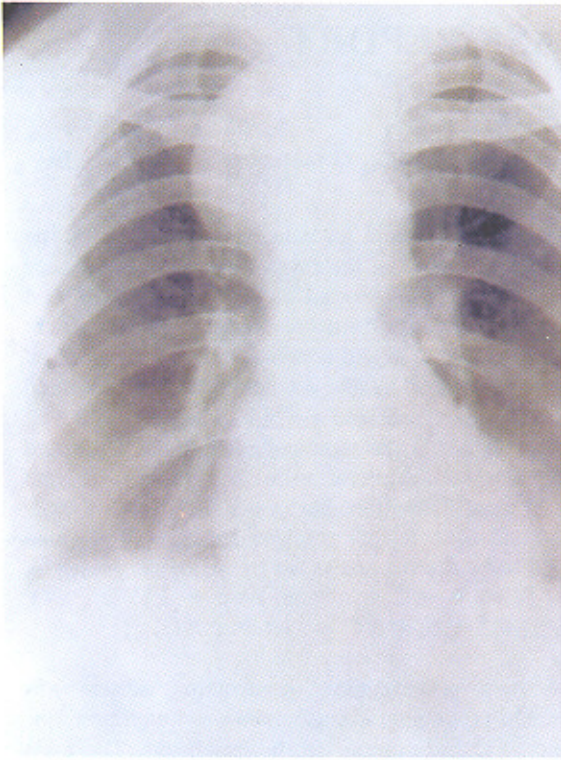


Fig. 1.

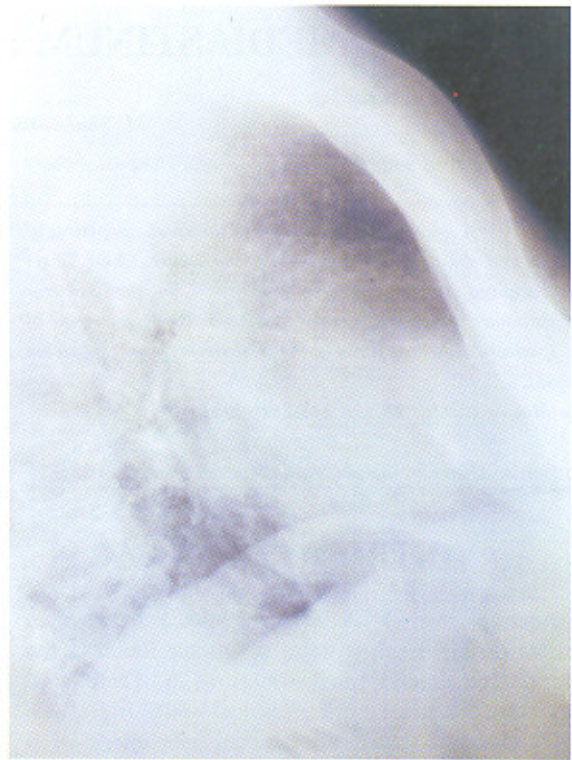


Fig. 2.

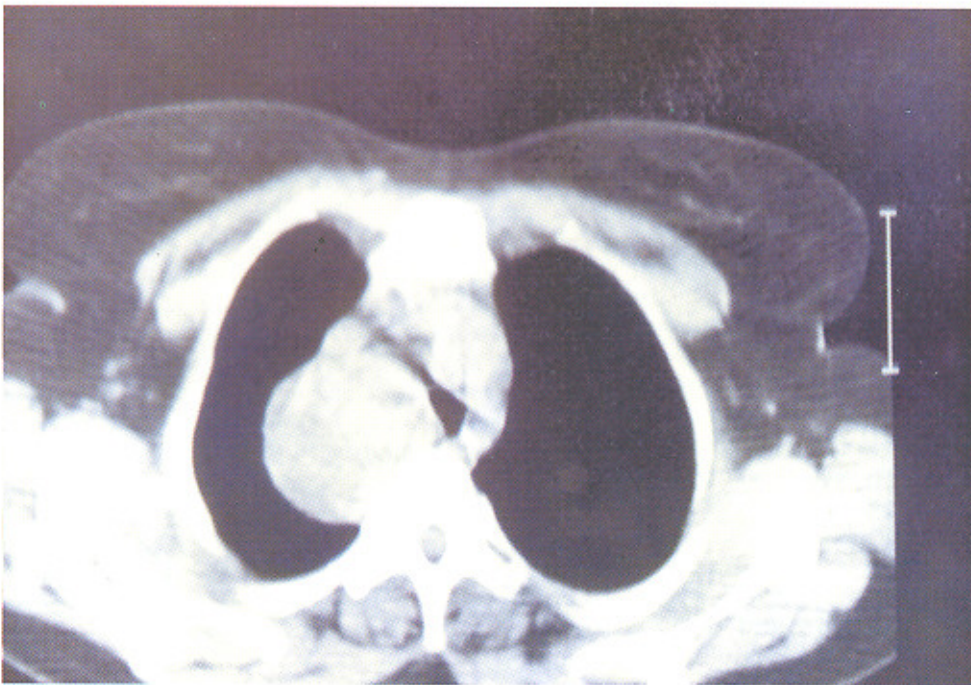


Fig. 3.



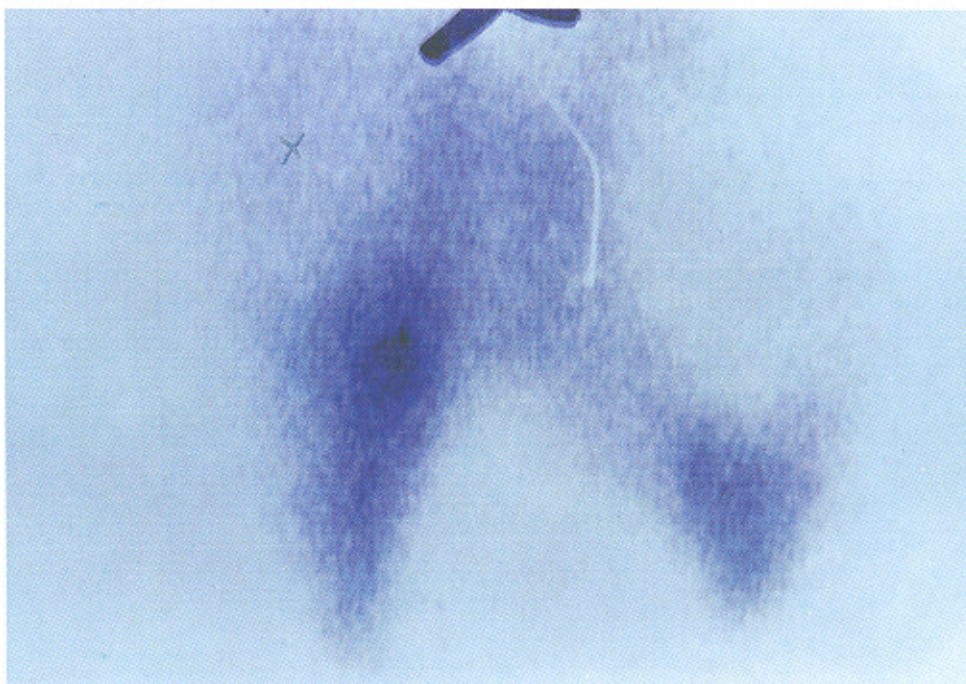


Fig. 4.

should be performed to document the presence of functioning cervical thyroid tissue to prevent the removal of the sole functioning thyroid tissue.

In asymptomatic and euthyroid patients exploration and excision of the mass is not indicated (10,11). However follow - up serial radiographic and physical exams for evaluation of the size and situation of the mass are mandatory. Surgical intervention and excision of the mass is indicated in lesions with rapid growth or those causing pressure effects on the trachea or surrounding tissues (10,5,12).

There have been several reports of aberrant thyroid tissue in the superior and the anterior mediastinum (13,2), and also adherent to the esophagus (1,12), in the intracardiac (3,4,6), intratracheal (5), and intrathymic regions (14), but the presence of aberrant thyroid tissue in the posterior mediastinum is very rare.

In the presented case, the patient was suffering from dyspnea and chest pain. Following workup, a mass was detected in the posterior mediastinum and was subsequently excised. This mass had created pressure effects on the trachea and after its resection the patient became symptom-free. Pathology report stated an aberrant thyroid tissue.

This case outlines the importance of thorough clinical workup in mediastinal masses presenting with pressure symptoms in the form of dyspnea and stridor. Timely surgical intervention is lifesaving and results in normal life.

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