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Editorial

Retrosternal goiter mimicking asthma: A diagnostic challenge

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Editorial

Asthma is a chronic respiratory disease characterized by chronic airway inflammation. Common manifestations of asthma include wheezing, chest tightness, cough, shortness of breath. Diagnosis of asthma requires clinical documentation of respiratory symptoms, exacerbation of symptoms following exposure to triggers, as well as demonstration of expiratory airflow obstruction. Wheeze is a continuous sound, lasting longer than 0.25 s that is produced by oscillation of opposing airway walls [1,2]. Wheezing, although a typical symptom of asthma, can also be caused by other diseases. Apart from asthma, wheezing can be due to extra-thoracic upper airway obstruction, intrathoracic upper airway obstruction, lower airway obstruction.

Benign multimodal goiter is a common disease, that rarely causes upper airway obstruction. Retrosternal goiter should be taken into account the differential diagnosis of upper airway obstruction [3]. The respiratory symptoms of a retrosternal goiter may be masked for years due to the slow growth of the goiter. Patients commonly complain of respiratory symptoms if tracheal diameter is narrowed more than 50% from the normal size. Respiratory symptoms may be suddenly precipitated by spontaneous or traumatically induced bleeding into the substernal goiter, as well as by tracheal infections [4]. Clinical management of this condition is really challenging. Diagnosis is also not straightforward, as clinical suspicion is needed. There are cases of retrosternal goiter mimicking asthma that remain undiagnosed for many years. Retrosternal goiter should be taken into account in the differential diagnosis of patients diagnosed as suffering from asthma, and presenting no improvement despite medical therapy. In addition, it should be taken into account that sudden gland enlargement due to hormonal changes might lead to life threatening upper airway obstruction with clinical picture similar to bronchial asthma attack [5]. In a recent very interesting case report, the authors present a case of a pregnant woman in the second trimester who presented with an acute airway obstruction due to the enlargement of a retrosternal goiter [3].

Goiters are the more common masses of the superior mediastinum [6,7]. Commonly, retrosternal goiter is due to the extension in the thorax of a cervical goiter. However, rarely, it may represent primary disease due to the growth of ectopic thyroid tissue. In addition, retrosternal goiter may develop in patient submitted to thyroidectomy due to cervical multinodular goiter [8]. Although retrosternal goiters are commonly asymptomatic, symptoms may include dyspnea, stridor, hoarseness, dysphagia, superior vena cava syndrome, transient ischemic attacks, cerebral edema, Horner's syndrome, and thyrotoxicosis [4]. Diagnosis could be verified by neck and chest radiography, thorax CT and MRI. Chest radiography commonly shows a widened mediastinum with a superior mediastinal mass causing compression of the trachea as well as deviation of the trachea to the right. Mediastinal computed tomography reveals a mass that is extension of the thyroid gland. The presence of respiratory symptoms in a patient with retrosternal goiter is an indication for surgery. The majority of retrosternal goiters can be approached through a cervical approach [9,10].

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