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A Rare Case Report on Pulmonary Hamartoma

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Abstract:
Hamartomas are non-neoplastic malformations which can be observed in lungs, pancreas, spleen, liver and kidney. Here, we have reported a 43 year old female on treatment for hypothyroidism was presented with complaints of dyspnea. The patient had undergone thyroidectomy 10 years ago. Her chest X-ray showed a solitary pulmonary nodule. The nodule size remained in the size range of 3-4cm. The diagnosis of solitary pulmonary nodule is only to undergo conservative surgery to remove the nodule.

INTRODUCTION:

Hamartomas are defined as the non-neoplastic developmental malformations which may be unifocal/multi-focal which consists of cytological normal mature cells which show a disorganized architectural pattern [1, 2, 3]. These malformations are commonly observed in lungs, pancreas, spleen, liver and kidney [2]. A non-cancerous deformed tissue normally seen in the membranous parts of lung tissue and cartilages are known as pulmonary hamartomas. These account for 75% of all benign lung tumors which are solitary in nature. The size of the nodules is small which comes in the range of 3-4cm [4]. Epidemiological studies reveal male populations are more evident to have pulmonary hamartomas which may be linked with their smoking habit. Computed tomography (CT) scan helps to diagnose the lesions.

CASE PRESENTATION:

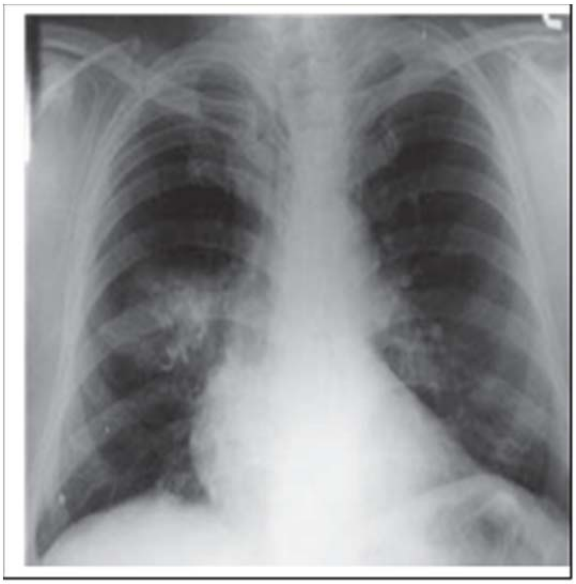

Fig 1: Chest X-ray shows the solitary pulmonary nodule in the right lung

A 43-year old female presented with complaints of progressive dyspnea for past one month. There is no history of cough, chest pain and fever. Patient have undergone thyroidectomy (10 years back), TAH-BSO (7 months back) and is presently on treatment for hypothyroidism.

Physical examination showed vital signs were stable, conscious, no pallor, no lymphadenopathy, heart and lungs were normal in auscultation, no joint swelling, nervous system examinations were normal.

Lab results: CBC: white blood cells: 5,400 cells/cumm; neutrophils 84%; haemoglobin 11.8g/dL; platelets 2.96lakhs/cumm; creatinine 0.6 mg/dL; TFT: TSH 22.53IU/mL; total T_3 100ng/dL; total T_4 4.09 µg/dL; total IgE 127.09 IU/mL. Blood cultures: no bacteria and fungus.

Chest X-ray (thorax) shows a solitary pulmonary nodule with well-defined fat containing lesions with sharp margins in right upper lung.

DIAGNOSIS: Solitary pulmonary nodule in right upper lung – pulmonary hamartoma.

DISCUSSION:

Pulmonary Hamartomas are commonly seen among the male gender than females with the incidence rate 2-3:1. It is seen usually as an asymptomatic with rare incidence of symptoms which include breathing difficulty, obstruction in bronchi, cough etc [5]. Peripheral tumours are seen in majority of the individuals. The pulmonary Hamartomas are very difficult to identify unless they grow in size [6]. The identification of these nodules can be done using CT scan, where these lesions appear as soft tissue masses which frequently observed to have calcification and fat deposition [7]. Most of the nodules seen are in the size range of 1-3cm which can go upto 9cm.

The treatment of hamartoma is usually in the form of conservative surgery, lung sparing, or bronchoplastic surgery: Wedge resection or enucleation of peripheral lesions and sleeve resection of endobronchial lesions.

CONCLUSION:

We have presented a case with PH which is non-cancerous presented with respiratory symptoms in the patient. Hamartomas generally show relatively slow annual growth, but rapid enlargement occurs in some cases [6]. The diagnosis for patients with solitary pulmonary nodule is only to undergo the surgery for removal of the nodule.

CONSENT:

Written informed consents were obtained from the patient for publication of this paper and accompanying image.

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