AUCTORES
Globalize your Research

Clinical Research and Clinical Trials

Vera Gamboa Raul*

Open Access

Case Report

Giant Vascularized Leiomyoma, Multidisciplinary Management: Case Report

Vera Gamboa Raul [1]*, Vera Gamboa Luis Carlos [2], Monroy Silva Monica Alexandra [2], Ducuara Solano Melvyn Yesid [3]

[1]Thoracic surgeon, Institute of Thoracic Diseases of Northeastern Colombia INTÓRAX, Erasmo Meoz University Hospital, Medical Duarte Clinic. Member of the departmental committee for lung cancer in northern Santander

[2]General Practitioner, Medical Duarte Clinic.

[3]General Physician at the Institute of Thoracic Diseases of Northeastern Colombia INTÓRAX, Academic and Scientific Coordinator of oncointorax, Regional Medical Coordinator INTORAX, Member of the Departmental Committee on Lung Cancer of North Santander

***Corresponding Author:** Vera Gamboa Raul, Thoracic surgeon, Institute of Thoracic Diseases of Northeastern Colombia INTÓRAX, Erasmo Meoz University Hospital.

Received date: November 13, 2024; **Accepted date:** December 05, 2024; **Published date:** January 03, 2025

Citation: Vera G. Raul, Luis Carlos VG, Monica Alexandra MS, Melvyn Yesid DS, (2025), Traconia (Multiplier) Fish Poisoning, *Clinical Research and Clinical Trials*, 12(1); **DOI:10.31579/2693-4779/246**

Abstract:

Primary lung leiomyoma is a rare benign tumor of mesodermal origin that accounts for approximately 2% of all benign lung tumors 1. Leiomyoma is a smooth muscle neoplasm that commonly occurs in the genitourinary system and gastrointestinal tract of the body. 2 Primary pulmonary leiomyoma is rarely reported in the literature. We present the case of a 47-year-old male patient with a clinical picture of approximately 6 months of evolution characterized by NYHA III dyspnea, adynamia, asthenia, and mild pain in the left costal grid. A chest CT scan was requested, which reported a solid left pulmonary mass of 24 x 13 cm that compromises 80% of the highly vascularized left hemithorax.

Keywords: pleural tumor; leiomyoma; vascularized; case report

Introduction

Primary lung leiomyoma is a rare benign tumor of mesodermal origin, accounting forapproximately 2% of all benign lung tumors [1]. It develops from smooth muscle fibers of the tracheobronchial tree, blood vessels, or heterotopic embryonic muscle islets in the lung, and may be parenchymal or tracheobronchial [2]. Leiomyoma is a smooth muscle neoplasm that commonly occurs in the genitourinary system and gastrointestinal tract of the body. Primary pulmonary leiomyoma is rarely reported in the literature. Pulmonary leiomyoma is a rare condition, with most cases being secondary to metastatic lung lesions, of primary origin usually located in the uterus in female patients. Primary pulmonary leiomyoma is rare and usually occurs in parenchymal, endotracheal, or endobronchial locations [3]

Case report:

The case of a 47-year-old male patient is presented. He was admitted to the emergency room with a clinical picture of 6 months' evolution given by respiratory symptoms of NYHA III type dyspnea, adynamia, asthenia, and mild pain in the left costal grid. He did not report any important or relevant history for the case. Upon admission to the service, a chest x-ray was requested, which showed great left opacity with displacement of the trachea and cardiac silhouette; the left lung is not visualized.

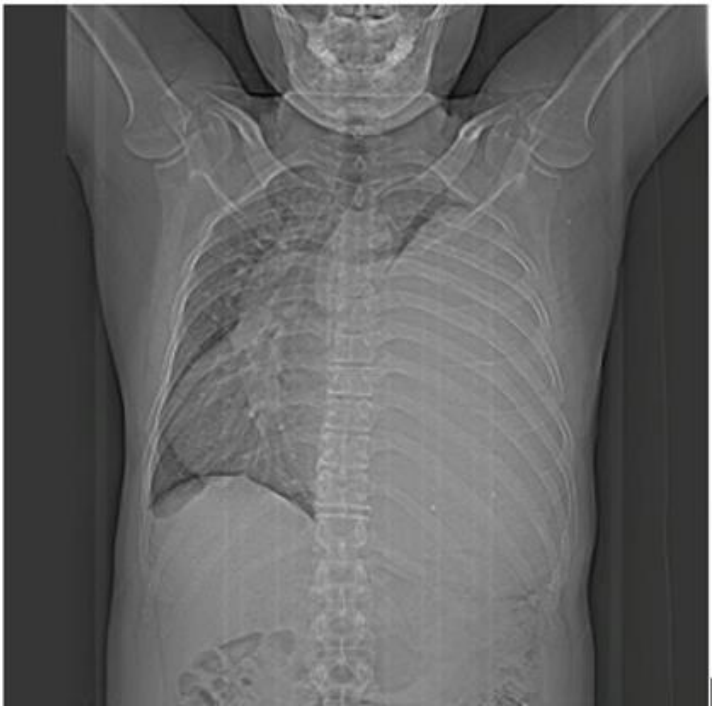

Image 1: Chest X-ray

Given the radiological findings, it was considered necessary to request a contrast- enhanced chest CT scan. which reported: a vascularized solid left pulmonary massof 24x13 cm that compromises 80% of the left hemithorax.

An evaluation was requested by the thoracic surgery service who indicated a percutaneous biopsy andangiotac in order to assess the characteristics of the lesion along with vascular compromise. The patient required oxygen via nasal cannula at 2 L/M during his hospital stay.

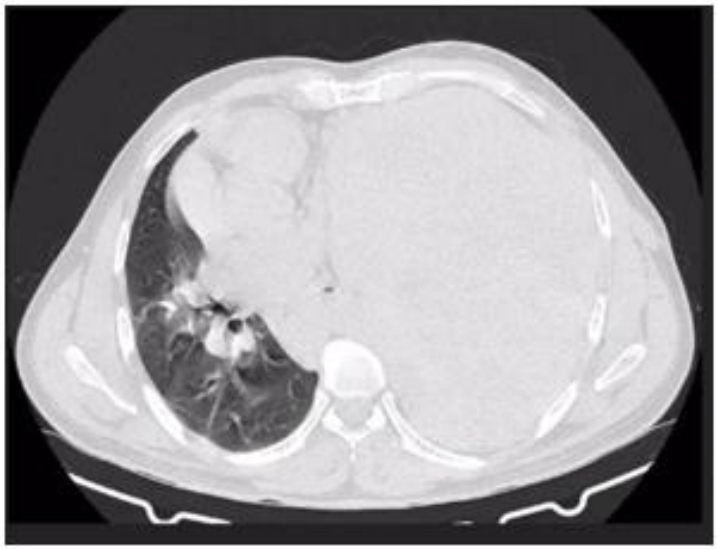

Image 2: Axial section of the pulmonarywindow with involvement of the left hemithorax by a tumor lesion

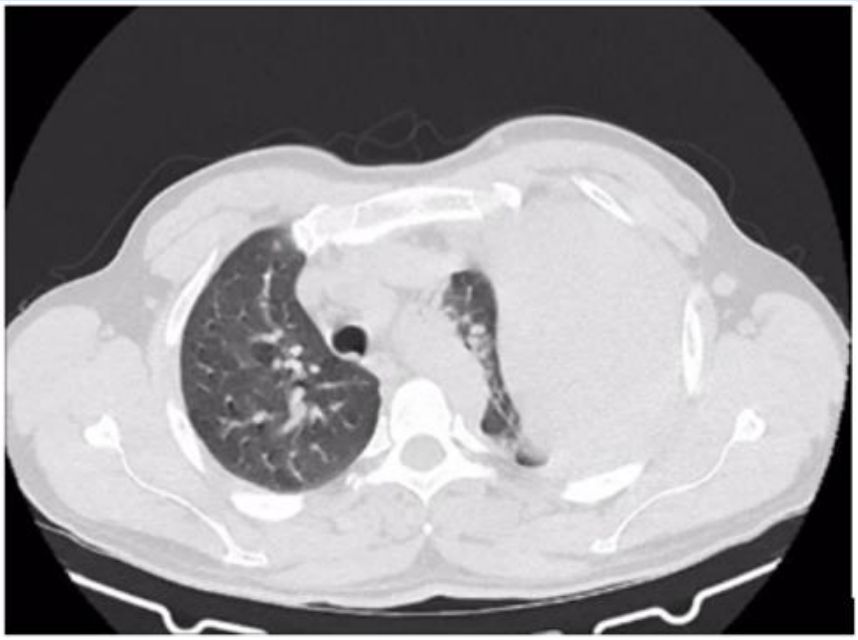

Image 3: Axial section of the pulmonary window showing displacement of the trachea and involvement of the left hemithorax due to a tumor lesion.

A percutaneous biopsy was performed with a pathological report of a lung mass withlow-grade spindle cell neoplasia involving desmoid fibromatosis. Additionally, immunohistochemical markers were requested, which reported: solitary fibrous tumor spindle cell neoplasia vs desmoid fibromatosis. A CT angiography was performed, which showed vascularization of the lesion, predominantly of the left internal mammary artery and the ipsilateral inferior phrenic artery. The lesion is susceptible to presurgical embolization to reduce intraoperative bleeding. Based on the reports, an evaluation was requested by the oncology service, who suggested surgical treatment for the T4N0M0 G1 STAGE 1B lesion, and an evaluation by interventional radiology, who performed embolization.

After each of the complementary studies, the patient was re-evaluated by thoracic surgery, who considered that the patient was a candidate for surgical management, which was performed by means of an extended posterolateral thoracotomy with open pleurectomy, which revealed a large fibrous tumor of giant left pleural origin with a vascular pedicle originating from the internal mammary artery. Ligation, mobilization of the tumor and closure by layers were performed. A large tumor lesion of approximately 6 kilos was obtained.

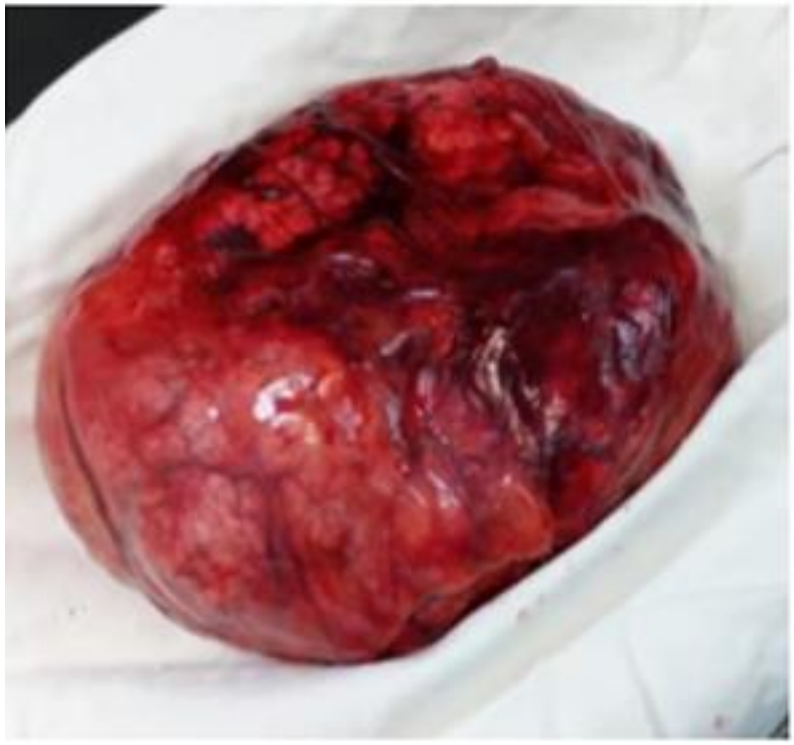

Image 4: Resected tumor

Image 5: Thoracotomy with tumor exposure

Following the intervention, the patient was transferred to the intensive care unit where he required management with invasive mechanical ventilation for 24 hours with subsequent extubation without complications. A control chest X-ray was taken with evidence of lung expansion and a centered trachea with no evidence ofpneumothorax or hemothorax.

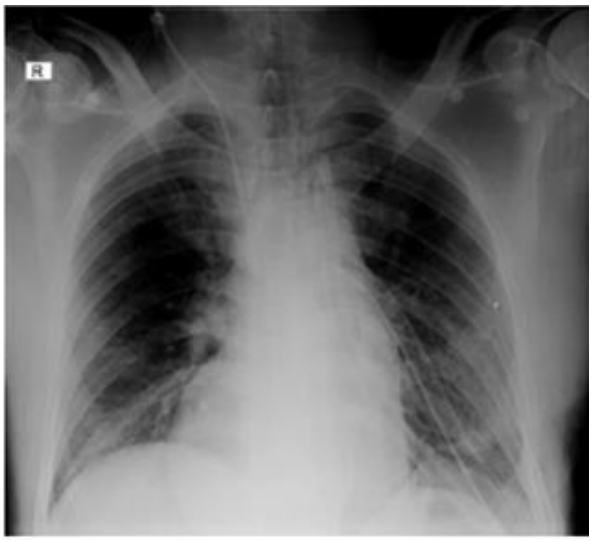

Image 6: Postoperative control chest X-ray

A pathological report of a tumor lesion was received with a description of a nodular lesion with expansive growth consisting of smooth muscle fibers, mature fibroblasts and collagen fibers, diagnosed as leiomyoma.

After a 17-day hospital stay with favorable clinical evolution, the patient was discharged with postoperative monitoring through an outpatient consultation with the thoracic surgery service.

Discussion

Pulmonary leiomyoma is a rare condition, with the majority of cases occurring secondary to metastatic lung lesions, of primary origin usually located in the uterus in female patients. Primary pulmonary leiomyoma is rare and usually occurs in parenchymal, endotracheal or endobronchial locations. The nature and etiology of primary pulmonary leiomyoma are still unknown. The diagnosis of primary pulmonary leiomyoma is mainly based on radiological and pathological investigations. Immunohistochemical stains are useful to rule out other differential diagnoses; CD117 and CD34 are markers of gastrointestinal stromal tumors; HMB- 45 reactivity suggests angiomyolipoma, while S-100 usually indicates a neural origin. There are currently no guidelines for the treatment of primary pulmonary leiomyoma. The treatment strategy for pulmonary leiomyoma depends on the airway location and the size of the lesion [5].

References:

1. Forkel W. (1910). A Fall of Fibroleiomyoma the Lunge [A case of fibroleiomyoma ofthe lung]. *Z. Krebsforsch.* 8: 390-393.
2. Vercillo MS, Kim AW, Pitalka L, et al. (2009). Right middle lobectomy for a primarypulmonary leiomyoma: a case report. *J Cases* 2:8673.
3. Fell CD, Tremblay A, Michaud GC, et al. 2005. Electrocautery of an endobronchialleiomyoma. *J. Bronchol* . 12: 181-183.
4. Sharifi N, Massoum SH, Shahri MK et al. (2010). Endobronchial leiomyoma; Report of a case successfully treated by bronchoscopic resection. *J.Res . Med. Sci.* 15: 364-370.
5. Ayabe H, Tsuji H, Tagawa Y, et al. (1995). Endobronchial leiomyoma: report of a case treated by bronchoplasty and review of the literature. *Surgery. Today* 25: 1057-1060.
6. Kwon YS, Kim H, Koh WJ, et al. (2008). Clinical features and efficacy of bronchoscopic intervention for tracheobronchial leiomyoma. *Respirology* 13: 908-912.
7. Park JS, Lee M, Kim HK, et al. (2012). Primary leiomyoma of trachea, bronchus and lung parenchyma: a unique institutional experience. *EUR. J. Cardiothoracic Surgery.* 41: 41-45.
8. Careaga Reyna G, Vélez Palafox M, Santiago Hernández JA, et al. (2008). Invasive leiomyoma of cardiac cavities. Case report and review of the literature. Mexican Journal of Cardiology.;19(1).30-38.
9. Cho-Kai Wu. (2009). Intravenous Leiomyomatosis with Intracardiac Extension. Internal Medicine (Case report). Department of Internal Medicine. National Taiwan University College of Medicine and Hospital Yun -Lin Branch,Yun - Lin, Taiwan. Division of Cardiology, Department of Internal Medicine.;48(12):997-1001.
10. Ruiz-Nodar JM, Aguilar Torres R, Nieto S. et. al. (2005). Intravenous leiomyomatosis with extension to cardiac cavities. Department of Cardiology, Pathological Anatomy and Cardiovascular Surgery. Hospital Universitario de la Princesa. Madrid. Section of Cardiology. Hospital Universitario de la Princesa. from Guadalajara. Spanish Journal of Cardiology.;58(10);1246-1248.
11. Matsuno Fichigami A, Fernandez Ocampo JB, Ortiz Urtecho E, et al. (2004). PrimitiveGiant Intrathoracic Leiomyoma. Journal of the Peruvian Society of Pulmonology.;48(2).
12. Martínez Basilio-Mora. (2011). Intravenous leiomyomatosis with extension to pulmonary arteries and pelvic aneurysms. Cardiocore .;46(3):42-44.
13. Ruiz Nodar Juan Miguel. (1997). Intravenous leiomyomatosis with extension to cardiaccavities. Rev Esp Cardiol .;50(6):451-454
14. Rosenberg JM. (1988). Intravenous Leiomyomatosis : a rare cause of right sided cardiac obstruction. Division of Cardiopulmonary Surgery, Departmens of Surgery and of Cardiology, SUNY Health Science Center and Crouse Irving Memorial Hospital, Syracuse, NY, USA. Eur J Cardiothorac Surg 2 (1): 58-56

DOI:10.31579/2693-4779/246