



AN ENIGMATIC ENCOUNTER OF HORNER'S SYNDROME AND PANCOAST TUMOUR PRESENTING AS SHOULDER PAIN

General Medicine

Dr. Reshma PG

Dr. P. Amaralinga Swamy

ABSTRACT

Pancoast tumors are rare malignancies located at the lung apex, often presenting with nonspecific symptoms such as shoulder pain. Their proximity to neurovascular structures can lead to Pancoast syndrome, which includes shoulder and arm pain, weakness of hand muscles, and Horner's syndrome. Early recognition is crucial but frequently delayed due to the subtlety of initial symptoms.

KEYWORDS

Pancoast Tumour, Horner's Syndrome, Shoulder Pain, Brachial Plexopathy

INTRODUCTION

Pancoast tumors—also referred to as superior sulcus or superior pulmonary sulcus tumors—are malignancies located in the apical region of the lung, specifically involving the pleuropulmonary groove. Anatomically, the definition includes any tumor invading through the parietal pleura at the level of the first rib and above which accounts for less than 5% of bronchogenic carcinoma.

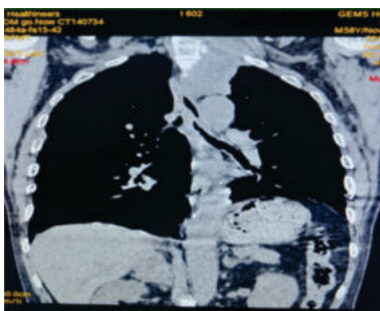
Pancoast syndrome: Shoulder and arm pain, Weakness of small muscles of hand and Horner's syndrome most common causes include extension of apical lung tumours at superior thoracic inlet with invasion of brachial plexus vertebrae, subclavian and greater vessels and sympathetic ganglia

Case Report

58 year old smoker with 29 pack years presented with pain and paresthesias in neck region radiating to left shoulder which is sharp lancinating type and difficulty in holding objects, mixing food

On Examination

- 1) Anisocoria, left eye ptosis and miosis (2mm pupil)
- 2) mass in upper lobe of left lung (dull note on left supra clavicular area, decreased breath sounds)
- 3) Left Upper Limb Wasting of thenar and hypothenar eminence, All intrinsic muscles of hand are weak, hand grip 0%, power of elbow and shoulder joint 3/5 & 4/5 respectively Reflexes of left upper limb 1+
- 4) Ciliospinal reflex; negative
- 5) Perspiration test; Decreased sweating on left side



HRCT Chest

Heterogenous lobulated mass in apical segment of left upper lobe of lung s/o pancoast tumor.

MRI BRACHIAL PLEXUS: T2 Hyperintense mass arising from anterior aspect of apicoposterior segment of left upper lobe compressing C6, C7, C8 roots, trunks, divisions and cords of brachial plexus, encasing branches, of arch of aorta (left subclavian and common carotid), left IJV, subclavian vein, mets to C7-T12 Vertebrae and left adrenal

NCS BRACHIAL PLEXUS: Pan brachial palsy

Histopathology: Adenocarcinoma Management

As the tumor is aggressive treated with 6 cycles of paclitaxel 260 mg + carboplatin 500 mg + ZA 4 mg. currently Horner's resolved patient is under followup for 6 months

DISCUSSION

The most common ignored complaint in our patient department but it can be an initial complaint of underlying malignancy Pancoast syndrome include Shoulder and arm pain, Weakness of small intrinsic muscles of hand and Horner's syndrome most common causes include extension of apical lung tumours at superior thoracic inlet with invasion of brachial plexus in C8-T2 distribution vertebrae, subclavian and greater vessels and sympathetic ganglia causing Horner's syndrome.

Pancoast-Tobias syndrome is most commonly caused by primary or secondary malignancies of the apical lung. However, a wide range of differential diagnoses for apical lung masses must also be considered. These include:

- (i) Infectious etiologies such as tuberculosis, Staphylococcus and Pseudomonas infections, thoracic actinomycosis, aspergillosis, echinococcosis, alveolar echinococcosis, cryptococcosis, and hydatid cysts; and
- (ii) Miscellaneous conditions including neurofibromatosis, cervical rib syndrome, vascular aneurysms, and amyloid nodules.

Given this broad spectrum of possible causes, obtaining a tissue biopsy is essential to establish the definitive histopathological diagnosis.

CONCLUSION

Ipsilateral shoulder and arm pain is the most common early sign of Pancoast-Tobias syndrome, often leading to delayed diagnosis due to its nonspecific nature. Persistent pain in chronic smokers should prompt chest imaging. Signs like Horner's syndrome and hand muscle atrophy aid diagnosis. Early detection and trimodality treatment improve outcomes, highlighting the need for strong lung cancer prevention efforts.

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Ethical Approval: The study was approved by the Institutional Ethics Committee

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