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# Chronic Cavitatory Pulmonary Aspergillosis With Horner's Syndrome

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**ABSTRACT**
**Rationale:**Chronic pulmonary aspergillosis is an uncommon and problematic disease complicating respiratory disorders.The most common form of chronic pulmonary aspergillosis is chronic cavitatory pulmonary aspergillosis.Horner's syndrome is characterized by miosis,anhidrosis,enophthalmosis and ptosis.
**Patient concern:**Patient had symptoms of cough with expectoration of brown,mucusplugs,shortness of breath associated with wheezing since three months following antitubetcular therapy of six months with Horner's syndrome.
**Diagnosis:**Chroniccavitatory pulmonary aspergillosis with Horner's syndrome.
**Intervention:**Antifungals,bronchodilators and LTRA.
**Conclusion:**Long term oral antifungal therapy is recommended for chronic cavitatory pulmonary aspergillosis to improve overall health status and respiratory symptoms and prevent progression.

## I. INTRODUCTION

Chronic pulmonary aspergillosis was first recognized as a fatal condition in 1842 in Edinburgh,UK[1].Chronic pulmonary aspergillosis is characterized by slowly progressive destruction of parenchyma,in the form of multiple cavities,nodules,infiltrates and fibrosis with or without an aspergilloma.it affects pre existing pulmonary pathology such as active or previous tuberculosis and non tuberculosis mycobacterial infection,chronic obstructive pulmonary disease,sarcoidosis or previous surgery for lung cancer[2].

## II. CASE REPORT

Patient named Tannu,17 years old presented to the out patient department with complaints of cough with copius,mucoid,whitesputum since three months associated with shortness of breath grade 3 mMRC since three months ,persistent in nature associated with wheezing.
Patient complaint of fever since three months which was low grade,intermittent,not associated with chills and rigors, relieved with medications.
History of loss of appetite and loss of weight present.
History of expectoration ofbrowncoloured mucus plugs.

Similar complaints of fever with loss of appetite and loss of weight nine months back associated with cough and expectoration for which she was initiated on antitubercular therapy byprivate practitioner for six months following which she did not have any improvement in the symptoms.
No history of haemoptysis,chest pain associated.
No history of smoking,biomassexposue,environmentalexposure,allergy,occupational exposure.
No history of any other associated co morbidities.
History of drooping of left upper eyelid since three months.
On examination,patient was pale with noicterus,clubbing,cyanosis,lymphadenopathy and pedal edema.
Left eye was sunken into the eyeball cavity(enophthalmos)with drooping of eyelid(ptosis),constricted pupil(miosis) and reduced sweating of the left face.
On inspection,patient was tachypneic with bilateral equal chest movements and bilaterally symmetrical chest with use of acessory muscles of respiration,.No engorged veins,sinuses or scars.
On palpation,apex beat was present in the left fifth intercostal space 1.5cm medial to midclavicularline.Allinspectory findings confirmed.
On percussion,bilateral resonant note was encountered over all the areas.
On auscultation,cavernous bronchial breathing was appreciated over leftsuprascapular and infraclavicular area.
Patient was evaluated with chest x ray,complete blood count.

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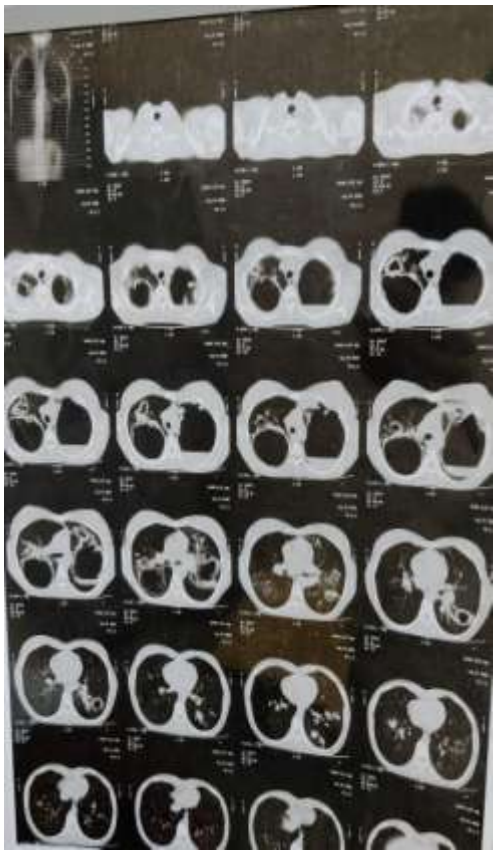
Chest x ray showed multiple bilateral cavitatory lesions .Complete blood count showed eosinplilia with AEC count 750.

Patient was evaluated further in terms of HRCT thorax and C MRI to rule out association between right upper lobe mass and Horner's syndrome and to see for any lesions in the brain.
and Horner's syndrome was attributed to pathology in the thalamus.

Patient was evaluated for IgE againstAspergillusfumigatus and total IgE levels which were elevated,culture for Aspergillusfumigatus was positive,serum precipitins for Aspergillusfumigatus was positive,presence of multiple colonies on fungal culture which was suggestive ofchronic cavitatory pulmonary aspergillosis after ruling out tuberculosis in terms of sputum cbnaat which was negative,AFB culture which was not suggestive of tuberculosis,patient was negative for pANCA and c ANCA,USG abdomen was within normal limits
Patient was treated for chronic cavitatorypulmonary aspergillosis interms of

antifungals,bronchodilators and LTRA.



CECT Thorax showing multiple bilateral cavitatory lesions

HRCT revealed multiple bilateral cavitatory lesions with central bronchiectasis with left upper lobe cystic lesion and granuloma in the left thalamaus on MRI brain.
The above findings suggested that the respiratory symptoms are attributed to respiratory pathology

## III. DISCUSSION

Chronic cavitatory pulmonary aspergillosis is characterized by one or more pulmonary cavities containing irregular intraluminal material with serologic and microbiological evidence implicating Aspergillus species with significant pulmonary symptoms and radiological progression oer three months.[3]
In the patient,there was a history of shortness of breath associated with wheezing over.

Clinical features and investigations supportive of diagnosis of chronic cavitatory pulmonary aspergillosis in the case was an elevated total IgE which was 1400 i.e. greater than 1000,raised eosinophils i.e. 750 absolute eosinophil count,central bronchiectasis on high resolution CT scan, expectoration of brown mucus plugs with raised serum precipitins against Aspergillusfumigatus,multiple colonies on fungal culture.
Horner's syndrome is characterized by the disruption of sympathetic innervation to the eyes which gives rise to a constellation of symptoms consisting of miosis,enophthalmosis,ptosis and anhidrosis.This syndrome was initially described in animals by the French physiologist Claude Bernard in 1854[4]and subsequently in a soldier who sustained a gunshot injury to his neck.[5]
Lesions in the hypothalamus such as tumour,haemorrahge can cause ipsilateral horner's syndrome.[5]

Apical lung lesions that spread locally to the region of the superior thoracic outlet can cause symptoms of ipsilateral shoulder pain,paresthesias along the medial arm,forearm,fourth and fifth digits,weakness of the hand muscles and a preganglionic Horner's syndrome.The combination of of signs is called as Pancoastsyndrome.The most common cause of Pancoast syndrome is non small cell lung carcinoma.[6,7]
The patient did not have left sided weakness and pain attributing Horner's syndrome to the mass in the hypothalamus.

Chronic pulmonaryaspergillosis can be successfully treated with antifungals.

Itraconazole 200mg twice daily for for 16 weeks has led to decreased IgElevels,greater resolution of pulmonary infiltrates and gained exercise tolerance or pulmonary function.[8]

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