CASE PRESENTATION

- 44 year old female, with no known co-morbidities
- Came to pulmonology opd with complaints of ,

breathlessness- MMRC grade 3

• Initially she had MMRC grade 1 before 3 months, slowly progressed .

Cough - 3 months

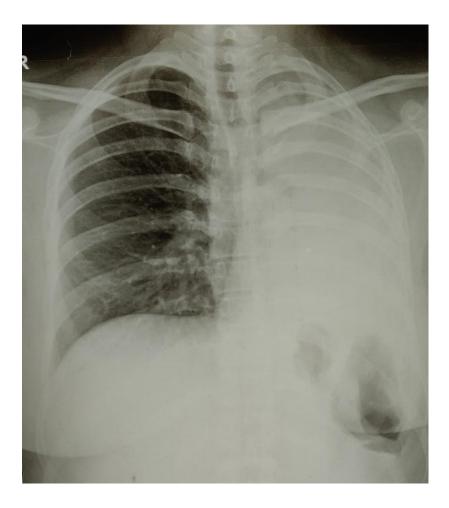
- H/O cough, dry , intermittent, associated with hemoptysis 3 days before presenting to us.
- Hemoptysis was mild, less than one spoonful per day

Left sided chest pain

O/E- PR - 98 bpm, BP 140/70, RR- 24 cycles per minute, spo2 - 95 % room air

Trachea shifted to left, movement of chest reduced on left side.

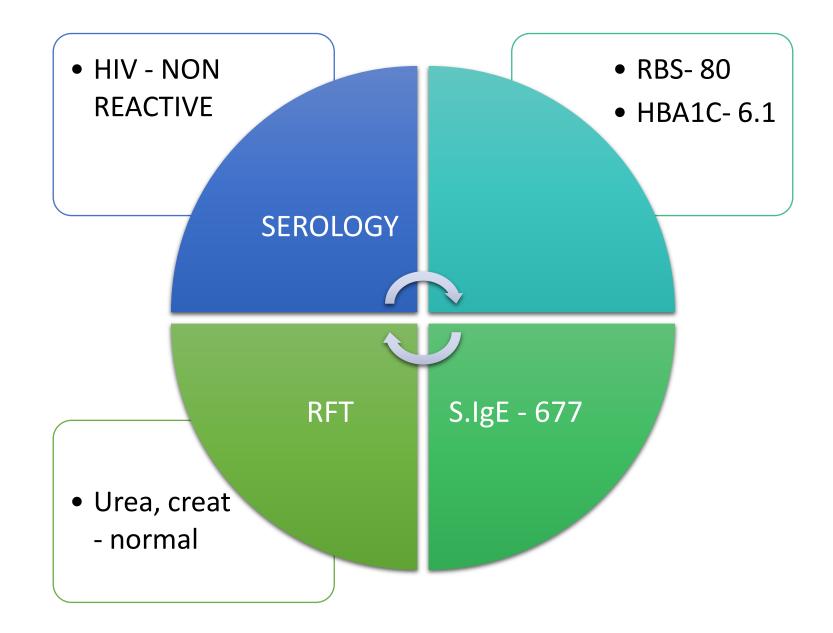
Spino scapular distance reduced, Air entry reduced.

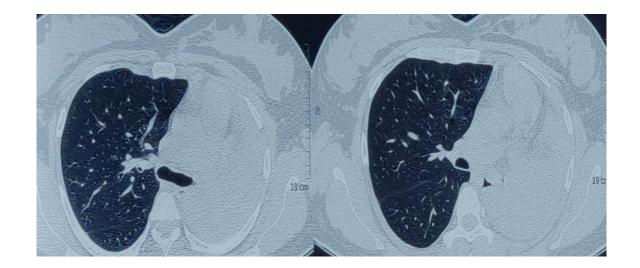


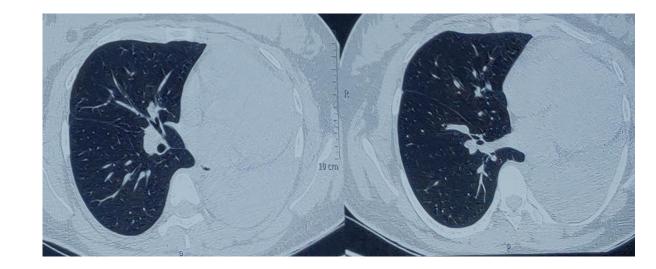
CXR showing left side homogenous opacity, with shift of trachea to left, and bronchus cut - off.

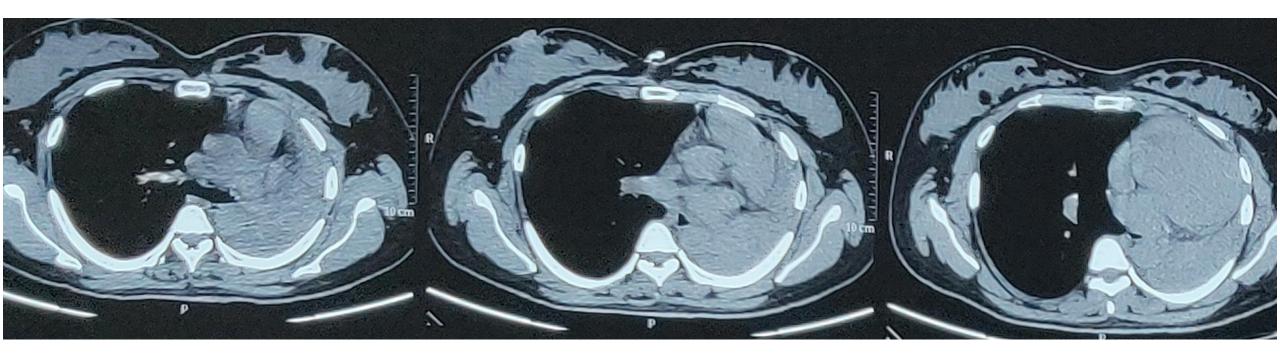
DIFFERENTIAL DIAGNOSIS

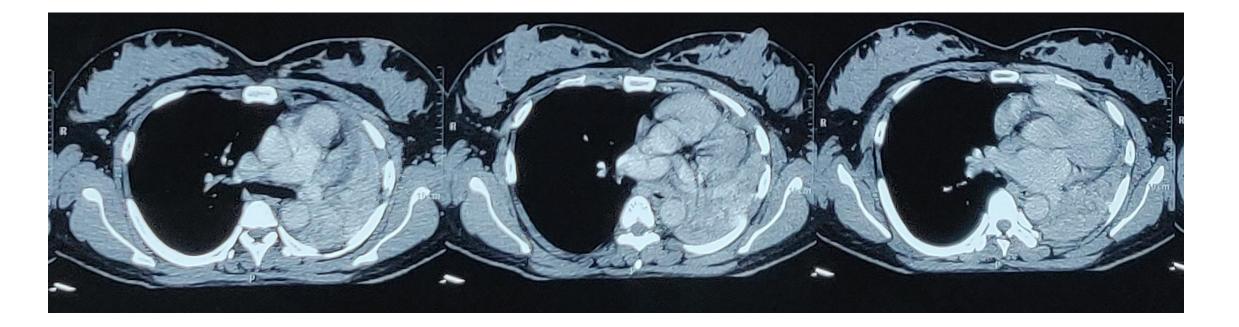
- Left side pleural effusion.
- Left side mass lesion.
- Left side endo bronchial obstruction, leading to collapse.
- Foreign body obstructing left main bronchus.



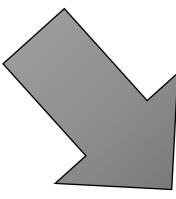








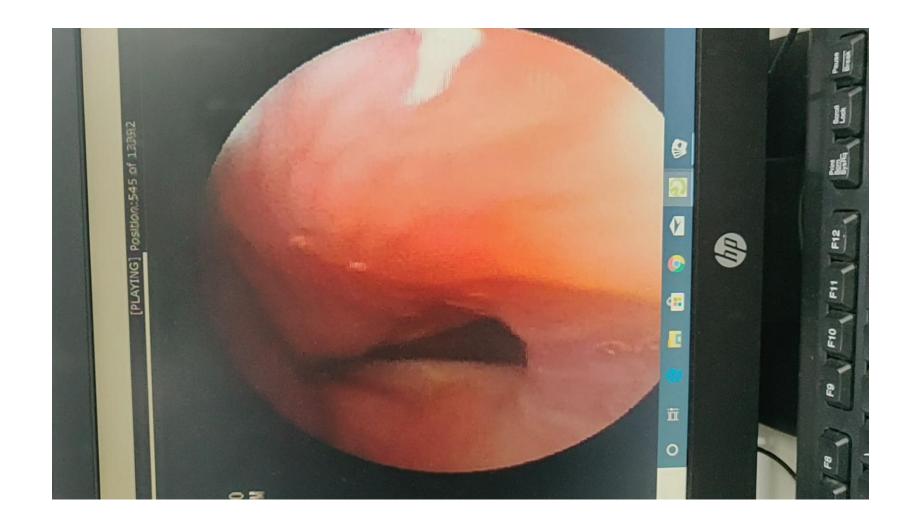
BRONCHOSCOPY

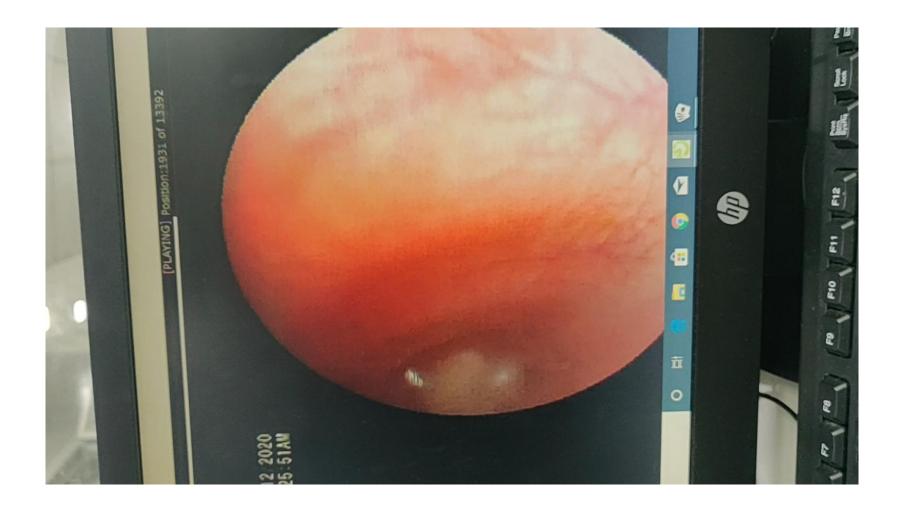


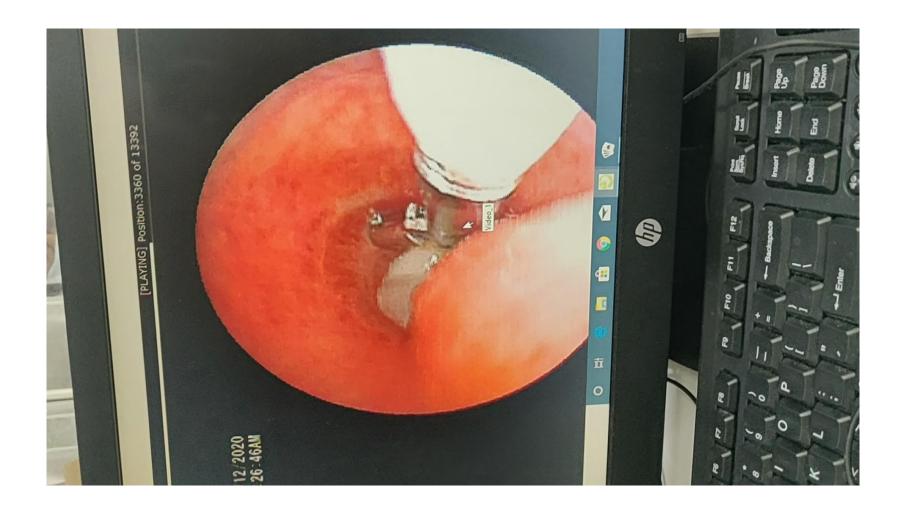
Whitish mass , irregular border was obstructing the left main bronchus. Scope could not be passed beyond the mass.

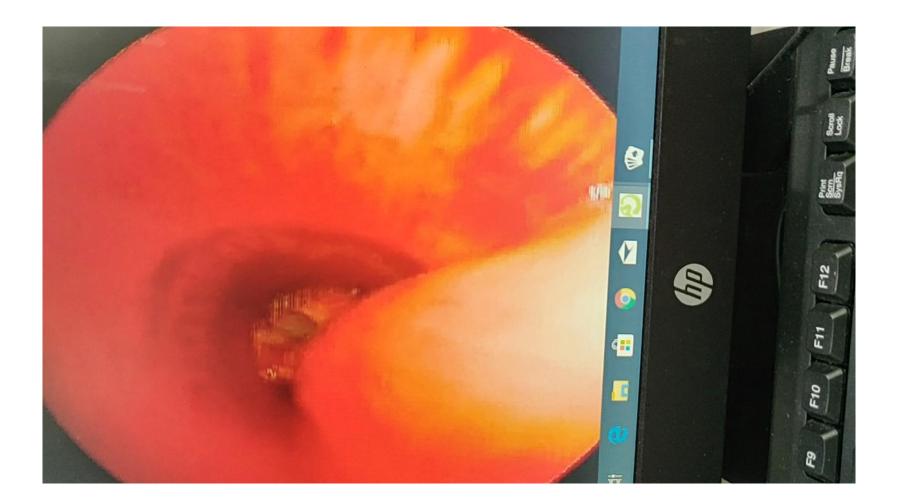
ATTEMPTED TO TAKE BIOPSY, BLED ON TOUCH. AFTER ACHIEVING HEMOSTASIS , BIOPSY FROM THE MASS TAKEN

VIDEO











Whitish mass like, friable, bleeds on touch, irregular border, completely obstructing the left main bronchus



CXR 2 MONTHS BACK



CXR SHOWING HYPERINFLATION OF LEFT LUNG FIELD, WITH STRAIGHTENING OF LEFT HEART BORDER SUGGESTIVE OF SOME UNDERLYING COLLAPSE.

HISTOPATHOLOGY REPORT

CLINICAL DETAILS :

C/o hemoptysis, cough, Left side chest pain

CxR showed complete Left lung collapse suggestive of foreign body obstruction in Left bronchus

HRCT-Left lung collapse

Bronchoscopy- ? mass attached to bronchial walls circumferentially bleeds on biopsy Rule out carcinoid, malignancy, infective etiology

SPECIMEN :

Endobronchial biopsy

GROSS:

Received multiple reddish white soft tissue bits aggregate measuring 1.5x0.5x0.5 cm. (A-B)-All processed

MICROSCOPY :

Sections show predominantly fibrinoid necrosis along with inflammatory cells. Necrotic material show fungal organisms. Fungus show mixture of yeast & hyphal form. Fungus have narrow cell wall , septate hyphe and acute angle branches

No evidence of malignancy seen. Occasional strip of viable mucosa is identified lined by

respiratory epithelium

IMPRESSION: Endobronchial biopsy-Fungal organism possibilities on morphology are 1) Aspergillus 2) Candida

NOTE:

Kindy correlate with microbiological findings for exact species identification.

ENDOBRONCHIAL BIOPSY IS SUGGESTIVE OF ASPERGILLUS OR CANDIDA.

• Started patient on VORICONAZOLE.

<u>Oxf Med Case Reports</u>. 2019 Jun; 2019(6): omz055. Published online 2019 Jun 28. doi: <u>10.1093/omcr/omz055</u> PMCID: PMC6600126 PMID: <u>31281663</u>

Endobronchial fungal infection caused by *Candida albicans* with main bronchus obstruction: a case report

Taeyun Kim,¹ Yohan Jeon,² Hyunji Choi,³ Jin Young Lee,⁴ and Jehun Kim¹

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Abstract

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Endobronchial fungal infection (EBFI) is a rare form of pulmonary fungal infection that especially affects immunocompromised patients. Furthermore, EBFI resulting in obstruction of the main bronchus is extremely rare. With the development of bronchoscopic techniques, rare cases of EBFI have been reported. A 68-year-old female was referred to the Department of Pulmonology for confusion and obtundation. The patient was diagnosed with septic shock due to acute pyelonephritis followed by obstructive EBFI. We performed bronchoscopic biopsy and endobronchial aspiration for culture. Biopsy showed yeast-like fungus and *Candida albicans* grew in the culture. EBFI has been under-recognized because of difficulties in confirming the diagnosis. Endobronchial ultrasound-guided transbronchial needle aspiration and bronchoscopy are used to improve the diagnosis of thoracic infection, such as tuberculosis. The role of bronchoscopy in the diagnosis of infectious diseases of the trachea or main bronchi is expected to widen in the future.

X



Abstract

Endobronchial fungal infections (EBFIs), though rare compared to pulmonary or systemic disease, can result from inhalation of fungal yeast or hyphae. Compromised host status and certain environmental factors may increase the likelihood of this type of infection. EBFIs have few systemic symptoms and therefore have been historically difficult to diagnose, but the increased use of flexible bronchoscopy has made diagnosis easier. Characteristics of this type of infection vary and may range from mild mucosal inflammation to invasive disease. *Aspergillus* species, *Coccidioides immitis*, Zygomycetes, *Candida* species, *Cryptococcus neoformans*, and

• Endo bronchial fungal infecions are present in immunocompromised patients, who are on long term steroids, post organ transplant patients, immunosuppressive medications.

• In our case, patient does not have any immunosuppressive conditions.