

A CASE REPORT OF PULMONARY ASPERGILLOSIS DIAGNOSED ON BRONCHIAL WASH CYTOLOGY WITH HISTOPATHOLOGICAL CORRELATION IN CLINICALLY UNSUSPECTED PATIENT



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INTRODUCTION

Pulmonary aspergillosis is most commonly caused by *Aspergillus fumigatus* and is rarely diagnosed on cytology¹. Generally, biopsy or serologic techniques are relied for diagnosis of fungal infections². The prevalence of aspergillus complicating asthma globally is 2.5% (range, 0.7-3.5%)³.

CASE REPORT

We hereby present a case of 66 years old asthmatic male who presented with chief complaints of intermittent fever with chills, breathlessness and cough with expectoration for 14 days. Radiological investigations were suggestive of fibro-nodular opacities involving the apical segment of the right upper lobe. Bronchoscopy guided bronchial wash and biopsy were taken and cytological examination revealed thin septate fungal hyphae with acute angle branching which was correlated by histopathological examination and further confirmed by serology and culture.

INVESTIGATIONS

Hematology: Within normal limits.

Chest X-Ray: Suggestive of consolidation of apical right lung.

HRCT Thorax: Suggestive of fibro-nodular opacities with patchy consolidation involving the apical segment of the right upper lobe.

Bronchoscopy: Suggestive of bronchiectatic changes in right upper lobe and mucus plug in right lower lobe.

Bronchial wash cytology: cytological examination revealed thin septate fungal hyphae with acute angle branching

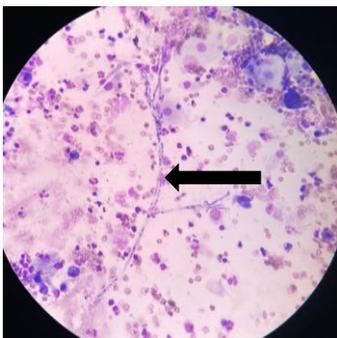


Fig-1

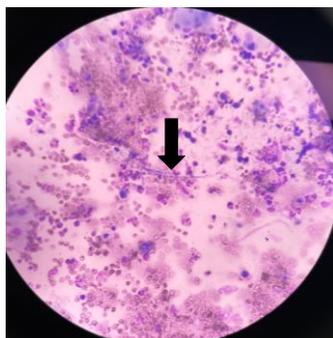


Fig-2

Fig 1&2 MGG smears showing thin septate fungal hyphae with acute angle branching

Bronchial biopsy: H & E stained section revealed septate hyphae with acute angle branching.

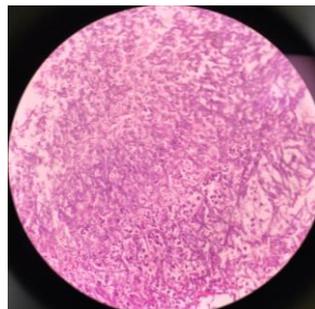


Fig-3
H & E stained section showing septate hyphae with acute angle branching

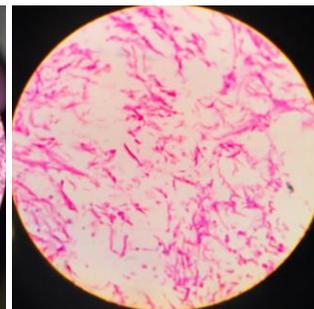


Fig-4
PAS stained section showing magenta stained fungal hyphae

Serology Galactomannan BAL Fluid: Positive

Mycology Culture: showed *Aspergillus* species colonies.

DISCUSSION & CONCLUSION

Cytology of pulmonary lesions has been widely used to diagnose pulmonary neoplasms, but often biopsy or serologic techniques are relied for the diagnosis of fungal infections, which demands time of a patient as well as clinicians. Clinicians however interested in rapid and reliable diagnosis for initiation of correct treatment. Hence, cytologic diagnosis should be considered as valuable tool in clinically unsuspected cases of Pulmonary Aspergillosis so that therapy should be initiated early to reduce mortality and morbidity while a workup is under way.

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