

## Chronic Pulmonary Aspergillosis- Diagnostic Challenge

Dr Ritu Singhal

National Institute of Tuberculosis and Respiratory Diseases, New Delhi, India

### Abstract

Chronic Pulmonary Aspergillosis (CPA) is pulmonary disease estimated to affect 3 million people world-wide making it an under-recognized, but significant health problem world-wide, which however confers significant morbidity and mortality. The disease is caused by *Aspergillus* species, which can reach respiratory tract by air-borne transmission. Any form of lung injury or illness is predisposing factor for development of CPA, among which most common cause is pulmonary tuberculosis. Such pulmonary injury affects local host defenses enabling *Aspergillus* conidia to germinate within lung. It is crucial to diagnose CPA timely and appropriately to ensure relevant treatment considering similarity of CPA to many other diseases.

Diagnosis of CPA is based on well-established diagnostic criteria, which requires thoracic imaging, direct microbiological evidence of *Aspergillus* infection or an immune response to *Aspergillus* spp. New laboratory diagnostics have been developed specifically for diagnosing CPA, which need to be evaluated specifically for CPA and utilized for diagnosis.

### Biography:

Dr Ritu Singhal (MD) is working as Senior Specialist and Quality Co-ordinator in Department of Microbiology, Centre of Excellence (WHO) & National Reference Laboratory (NABL accredited) for Tuberculosis at National Institute of Tuberculosis and Respiratory Disease, New Delhi. She is National level trainer in molecular technologies in TB for SAARC and Union. She has conceptualized many projects with over 32 publications in peer reviewed National and International Journals. She has been awarded Prof. AN Chakrabarty memorial prize for best published paper in IAMM, year 2017, is recipient of outstanding achievement as Fogarty Fellow in 2014.

### References:

1. Aggarwal, Amit & Singhal, Ritu & Bhalla, Manpreet & Myneedu, Vithal. (2020). Study of Contaminants Growing on Lowenstein Jensen Media during *Mycobacterium tuberculosis* Culture from a Respiratory Speciality Hospital in Northern India. *JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH*. 14. 10.7860/JCDR/2020/43525.13586.
2. Singhal, Ritu & Anthwal, Divya & Kumar, Gavish & Sah, Grish & Salfinger, Max & Choudhury, Sangeeta & Arora, Jyoti & Bhalla, Manpreet & Myneedu, Vithal & Sarin, Rohit & Haldar, Sagarika. (2020). Genotypic characterization of 'inferred' rifampin mutations in GenoType MTBDRplus assay and its association with phenotypic susceptibility testing of *Mycobacterium tuberculosis*. *Diagnostic Microbiology and Infectious Disease*. 96. 114995. 10.1016/j.diagmicrobio.2020.114995.
3. Sharma, Sujata & Verma, Deepak & Nebyou, Alazar Essayas. (2020). Evaluation of antagonistic and aggregation property of probiotic Lactic acid bacteria isolated from bovine milk. *International Journal of Scientific & Technology Research*. 9. 1734-1741.

Citation : Dr. Ritu Singhal, Chronic Pulmonary Aspergillosis- Diagnostic Challenge, *Fungal Infection* 2020; April 27th, 2020; London, UK