Co infection of Pulmonary tuberculosis, Nocardia and CMV in Post Renal Transplant – A Rare Case Presentation

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INTRODUCTION

Nocardiosis is a opportunistic infection caused mostly by nocardia asteroids, less commonly nocardia farscinia, Nocardiosis is a systemic infection usually starts in the lungs and has high predilection for brain, skin and subcutaneous tissues.[1] Pulmonary nocardiosis generally presents with pneumonia not responding to antibiotics with rapid deterioration of graft function and significant mortality.[1] It is commonly seen in solid organ transplant recipients those patients who are on immunosuppressive drugs.[1] The incidence of nocardiosis in solid organ transplant recipients is about 0.6%, recipients. In India, nocardiosis was reported in around 1.4% of renal transplant recipients,[2] most common species is nocardia steroids. Inhalation and inoculation are the two important routes of transmission of the bacteria. Heavy immunosuppression is the commonest predisposing risk factor. [3]

CASE REPORT

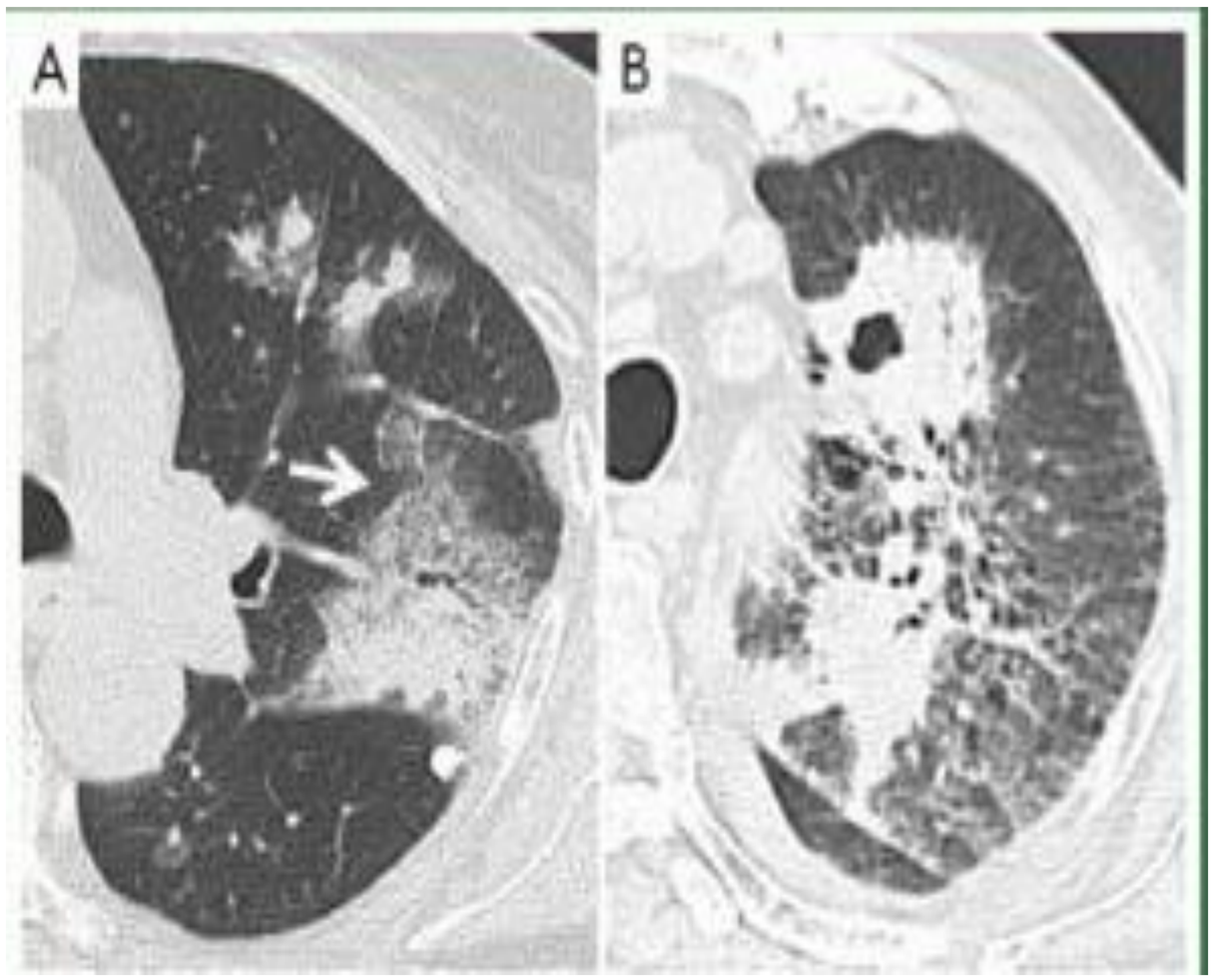
We report a case 45 years old, live related post renal transplant in 2019, **presented** with shortness of breath, cough with expectoration and fever.

On examination of the patient, blood pressure was 70/30 mmHg with saturation of 88% on room air and was using accessory muscles with crepitations present over both sides mammary and inframammary areas.

A **diagnosis** of pneumonia was made and empirically started antibiotics after obtaining cultures but even after 5 days of empirical antibiotics no response observed.

Investigations: Sputum AFB , Gram staining , and CT chest followed by this bronchoscopy was done.

HRCT CHEST



Air-bronchogram shows consolidation surrounded by CPA (arrow) and scattered nodules with GGO

- Initial sputum AFB and gram staining was negative.
- CT chest suggestive Air-bronchogram showed consolidation surrounded by CPA (arrow) and scattered nodules with GGO with parahilar lymphadenopathy.
- Bronchoscopy was done which showed purulent secretion and BAL showed branching hyphae.
- AFB stain was positive, suggestive of Nocardia with positive TB PCR result.
- On further evaluation CMV PCR was found positive with 1700 copies/ml.
- **Treatment**: Patient was treated with co-trimoxazole, ATT and oral valganciclovir. Patient responded well to treatment and pneumonia was resolved.

CONCLUSION

- This patient had an isolated lung involvement without any clinically evident of dissemination.. It is known fact that 28-50% of pulmonary nocardiosis may develop disseminated nocardiosis So, high index of suspicion is important in early diagnosis and treatment of pulmonary nocardial infections. Nocardial infection is always keep in differential diagnosis in transplant recipients who are presenting with pulmonary symptoms and not responding to usual antibiotics

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