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Fungal Pneumonia – Leptospirosis Co-Infection: A Case Report.

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ABSTRACT

We present a rare co- infection of fungal pneumonia with Leptospirosis in a pregnant patient. 29 yrs old immune competent patient had short pyrexia, cough and breathlessness. Due to the current season of influenza, it was considered. Radiograph of chest showed left lower lobe pneumonia. The culture of sputum was positive for Candida albicans. Serologically in fever investigations profile leptospira IGM was detected. She was treated with antibiotics, antifungal, and supportive measures and was discharged in a stable condition. This is a rare co infection of fungal Pneumonia and Leptospirosis.

Keywords: fungal pneumonia, leptospirosis.

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INTRODUCTION

Fungal lung infection is a rarity. Fungal Pneumonia with Leptospirosis co infection is still rare. Common co infections are Malaria and Leptospirosis, Dengue with Leptospirosis, Melioidosis and Leptospirosis, Fungi may colonize body sites without disease or produce a varied clinical syndromes. Opportunistic Fungal diseases occur in patients with congenital or acquired defects in the host immune defence mechanism. Fungal Pneumonia is diffuse and prone for complications by blood vessel invasion, pulmonary infection and dissemination.

CASE REPORT

29 Years old lady was hospitalized with five day history of fever, cough with expectoration and breathlessness. She is a second gravida with seven months of pregnancy. Clinical examination and investigation revealed left lower lobe pneumonia. Routine investigation for fever revealed Leptospirosis co infection. She was very dyspnoeic and was put on nasal oxygen, higher antibiotics and supportive measures in the intensive care unit. There was no remarkable response to antibiotics like Piperacillin and Tazobactam, Azithromycin and Doxycycline. Seasonal H_1N_1 influenza was ruled out by serology. Her anemia was corrected. Once the sputum culture revealed Candida albicans (On the 4th day of admission) antifungal treatment was started. Six days after antifungal treatment she remarkably improved and was discharged in a stable condition.

Investigations:

Test	Result
WBC	5.5 Thousands cu.mm
RBC:	3.85 Millions cu.mm
Hb :	8.7 g/dl
PLATELETS:	158 Thousands / cu.mm
SEROLOGY : CRP	44 mg / dl
LEPTOSPIRA IsM –	Positive (18.67 Panbio units)
ANTINUCLEAR Ab	< 0.50
THROAT SWAB – Real time PCR	H_1N_1 not detected
Obstetric scan	2/3 Trimester – Viable foetus
Sputum for Acid fast bacilli –	Negative
Sputum Culture –culture.	Candida albicans grown in
RA Factor	7.7 U/L
Dengue NS1 / IgM / IgG	Non reactive
Blood Widal	Non reactive
ESR	71 mm/ hour
Blood Sugar Fasting	86 mg/dl
Glucose Challenge Test	154 mgm/dl
Renal function test	Normal
Liver function test	Marginal elevation of enzymes.
Radiograph of chest	**Left lower lobe pneumonia**

DISCUSSION

Leptospirosis is a zoonosis may present in a mild to severe form with jaundice and renal failure. Involvement of lung in Leptospirosis can be either a subtle clinical finding, or pulmonary haemorrhage or even an acute respiratory distress syndrome. Leptospirosis has been identified of late to manifest atypically with predominant pulmonary manifestation. This can delay the diagnosis. It has a biphasic pattern of illness. Hepato renal pulmonary involvement is due to capillary vasculitis. Association of fungal pneumonia with Leptospirosis in an immunocompetent pregnant mother is very rare. A slowly resolving pneumonia in this case raised suspicion. There was a dramatic response to antifungal treatment along with antibiotic and anemia correction supported by bronchodilators. Inhalation of fungal spores or reactivation of latent fungal infection can lead to this clinical picture. Endemic fungal pathogen is usually Histoplasma capsulatum. Imidazole derivatives, Amphotericin and Echinocandians are effective in treating fungal pneumonia in these cases.

This rare combination of Leptospirosis with Fungal Pneumonia is presented for its rarity.

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