

# CLINICAL, EPIDEMIOLOGICAL AND MICROBIOLOGICAL PROFILE AND OUTCOME OF PULMONARY INFECTIONS IN RENAL ALLOGRAFT RECIPIENTS. A 4 YEAR STUDY AT BANGLADESH MEDICAL COLLEGE HOSPITAL

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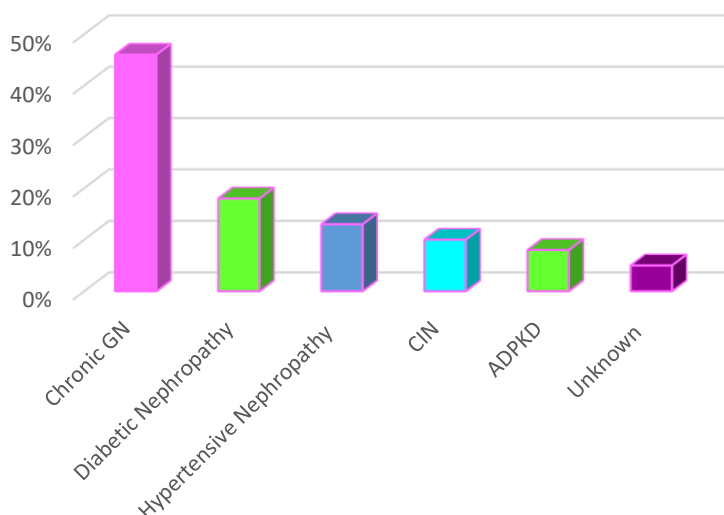
## INTRODUCTION

Pulmonary Infection recognized as the most common cause of infection related mortality in Renal Allograft recipients. A brief knowledge about spectrum of the microorganism involved in pulmonary infection, an appropriate empirical treatment, aggressive diagnostic approach required for instituting timely and appropriate therapy. So this study done to assess microbiological profile and outcome involved in pulmonary Infection of Renal Allograft recipients

## METHOD

Prospective observational study. From April 2020 to June 2024  
 Total 79 Renal Allograft Recipients with sign symptoms suggestive of pulmonary infection .  
 Bangladesh Medical College Hospital, Bangladesh.

**Figure 1: Primary Disease of Renal Allograft Recipients**



**Table 1: Microbiological profile of Renal Allograft**

Organism	Species	N
Bacteria	Klebsiella	10
	Staphylococcus	8
	Enterococcus	4
	E. coli	2
	Enterococcus	2
	Pseudomonas	1
	Acinetobacter	1
Virus	COVID 19	20
	CMV	12
MTB		8
Fungus	Candida albicans	3
	PCP	2
	Aspergillosis	1
	Mucor mycosis	1
Undiagnosed		4

## RESULT

Total 79 RAR with 85 episodes of infection. Mean age 37.2 years 74% Male.

Median time of Transplantation 39 months

Donor :All were live related donor with 67 % Male.

Chronic GN most common primary Disease (Figure 1)

Total 72% received induction therapy with majority ATG and were on triple immunosuppressive regimen (steroid, CNI, MMF).

Total 18 patients had episode of AR received methylprednisolone. Total 11 patient developed NODAT. Fever (79%) was most common clinical feature followed by dyspnea (39%), chest pain (62%). Hemoptysis was presenting feature of 8 patients and 21 patients had low oxygen saturation during hospitalization .

**Xray chest Finding (among 85 episodes)**

51.1% had air space opacity,

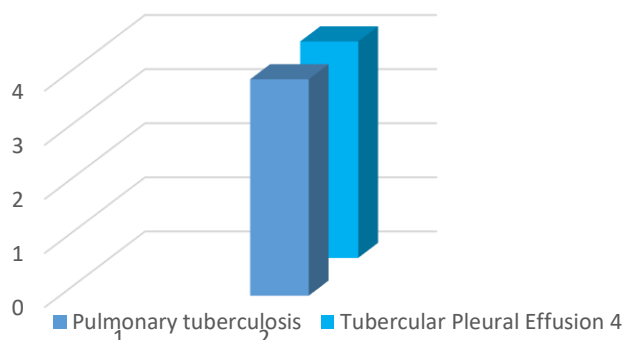
14.1 % pleural effusion and 11 patients had both.

Eight of all developed hilar lymphadenopathy and air fluid level.

**CT chest**

Among 18 episodes and found ground glass opacity ,consolidation in 8 cases fungal ball.

**Figure 2: spectrum of involvement with MTB**



## Outcome

Among all bacterial pneumonia five patients with bacterial pneumonia died from MOF

Among all CMV pneumonia 5 had associated bacterial infection and 8 patients developed type II respiratory failure and 6 patients with septic shock and finally six patients expired.

Total 2 patients

(one aspergillosis ,one mucormycosis )required lobectomy.

Total 18 patients( 22%) developed graft dysfunction and 8 required HD.

Total mortality 11.9%

## CONCLUSION

Pulmonary infection being a major cause of morbidity and mortality in RAR. Aggressive diagnostic approach and wide range Empirical regimen, timely intervention required for better outcome