

Mycobacterium Tuberculosis in Kidney Transplant Recipients

J Radha Krishna¹, Hin Seng Wong^{1,2}, S Yakob¹, EZZ Tan¹

1.Department of Nephrology, Hospital Selayang
2.Clinical Research Centre, Hospital Selayang

Introduction

The incidence of Tuberculosis (TB) in kidney transplant recipients(KTR) is 0.5 to 6.5% in developed countries and up to 15.4% in endemic areas. This study is to describe the prevalence and clinical manifestations of TB in KTR.

Methodology

This is a retrospective analysis of KTR who were diagnosed with TB between 2000 to 2022 in Hospital Selayang from Transplant Database . Electronic medical records were used for data collection.

Table 1 : Demographics

Transplant Recipients with Tuberculosis	N =15
Age (mean)	43.3 ± 7.46 years
Gender	
Male	73.3%
Female	26.7%
Type of Kidney Transplant	
Living-donor kidney transplant	46.7%
Deceased-donor kidney transplant	53.3%
Induction agents	
Intravenous thymoglobulin	27%
Interleukin- 2 inhibitors	27%
Unknown	46%
Maintenance Immunosuppressants	
Tacrolimus + Mycophenolate Mofetil + Prednisolone	53.3 %
Cyclosporin + Mycophenolate Mofetil + Prednisolone	20.0 %
Tacrolimus + Everolimus + Prednisolone	6.7%
Everolimus + Mycophenolate Mofetil + Prednisolone	6.7%
Tacrolimus + Azathioprine + Prednisolone	6.7%
Everolimus + Prednisolone	6.7%

Results

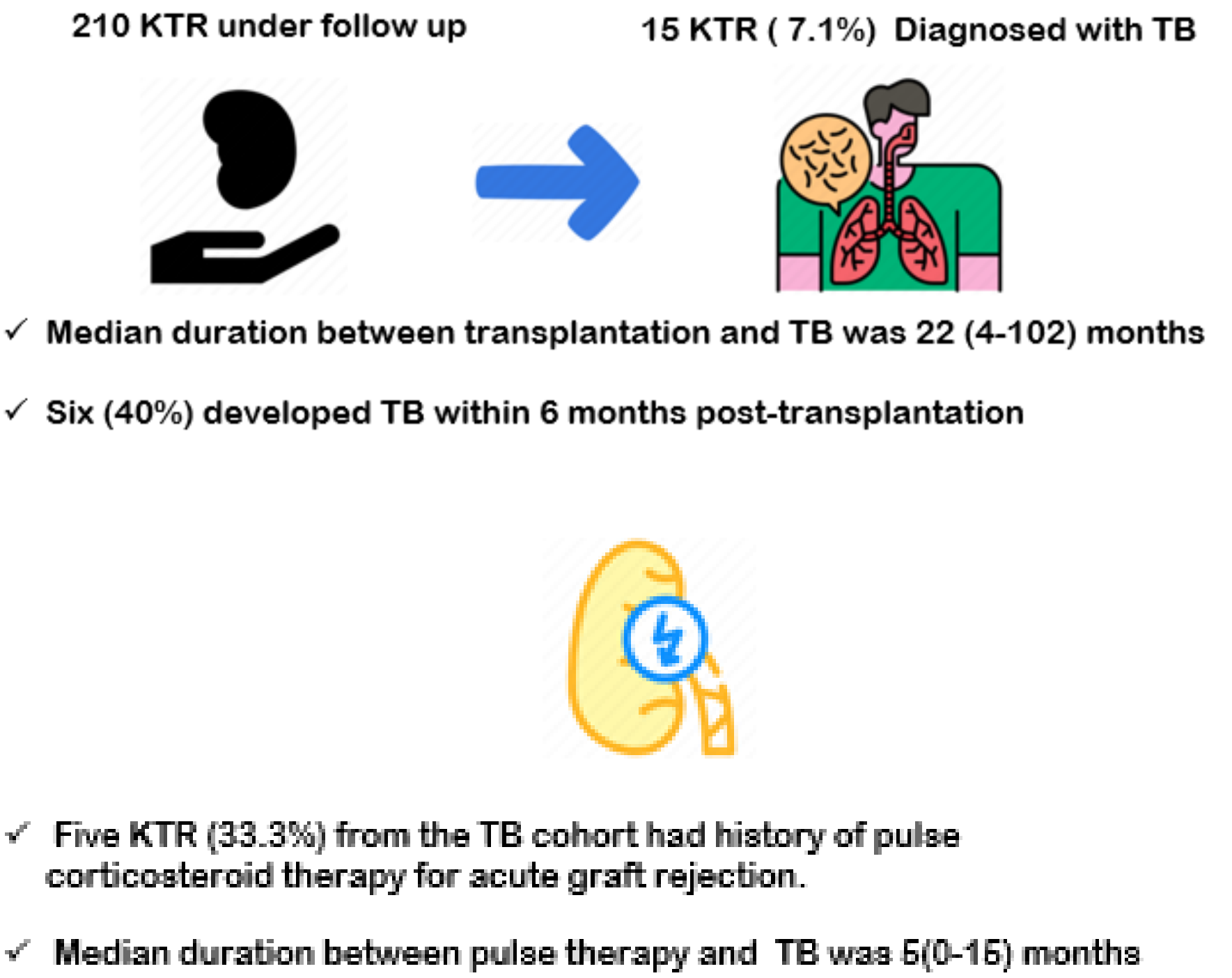
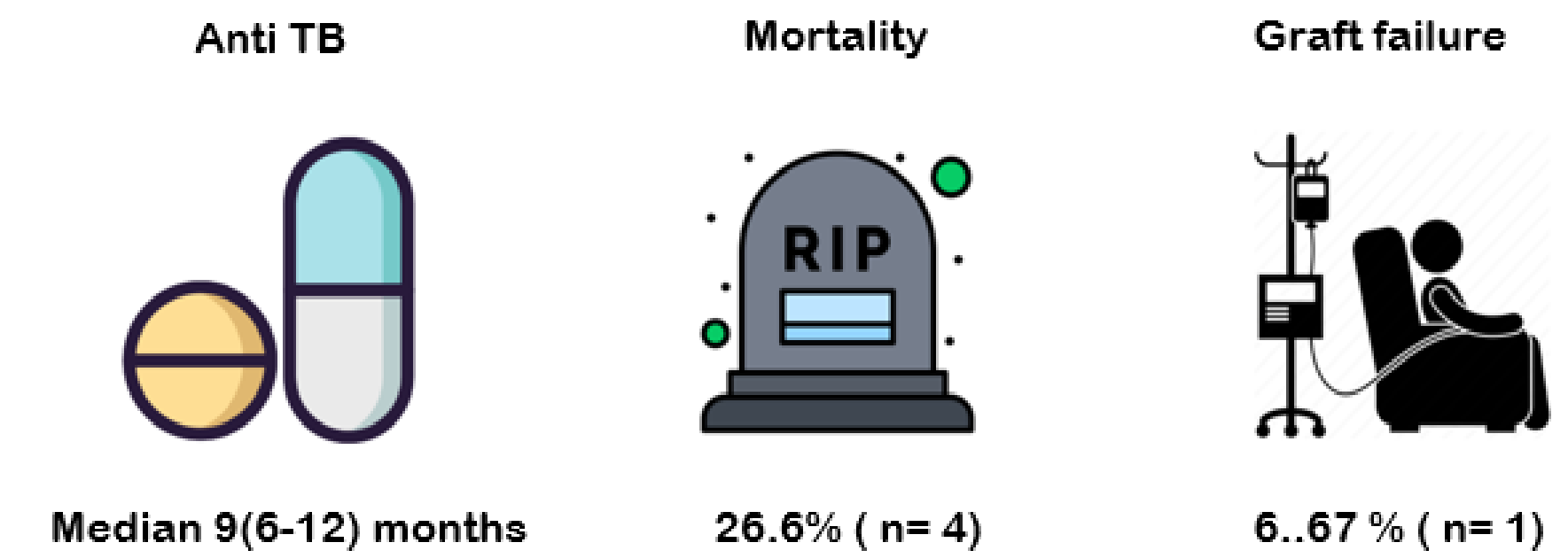


Table 2: Clinical course

Clinical Presentation and Diagnosis		
Clinical Presentation		n =15
	Fever/night sweats	13
	Respiratory symptoms	6
	Constitutional symptoms	4
	Diarrhoea	2
	Acute confusional state	1
Organ Involvement	Pulmonary	13
	Extrapulmonary	6
	✓ Bone Marrow	2
	✓ Lymph node	1
	✓ Pericardium	2
	✓ Brain	1
Diagnosis	Disseminated Tuberculosis	4
	Positive Sputum AFB direct smear and Culture	4
	Positive Bronchoalveolar lavage for AFB	5
	Positive HPE finding of lung nodule	1
	Positive HPE finding of lymph node	1
	Positive CSF finding	1
	Empirical treatment	4



Conclusion

TB remains endemic in our KTR population with high suspicion index in patients presenting with fever. Extensive investigation including bronchoscopy provides a higher yield of diagnosis in this group of cohorts.