

Biopsy-Proven Acute Rejection (BPAR) in Kidney Transplant Recipients (KTR): Characteristics and Outcomes

A Single Centre Experience

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Introduction

Allograft Rejection remains one of the most feared complications in Kidney Transplantation. We aim to evaluate the characteristics and outcomes of BPAR in Hospital Selayang.

Methodology

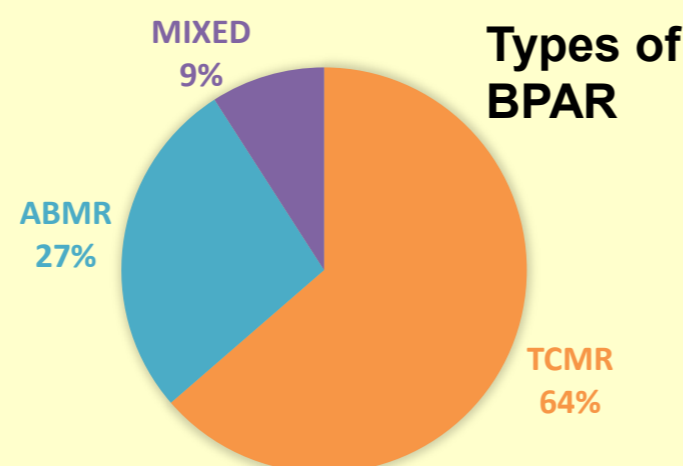
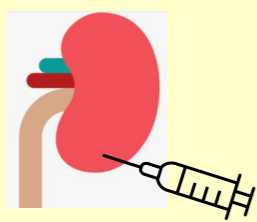
Records for all KTRs who underwent Kidney Allograft Biopsies (KAB) from January 2021 to March 2024 were evaluated.

Results

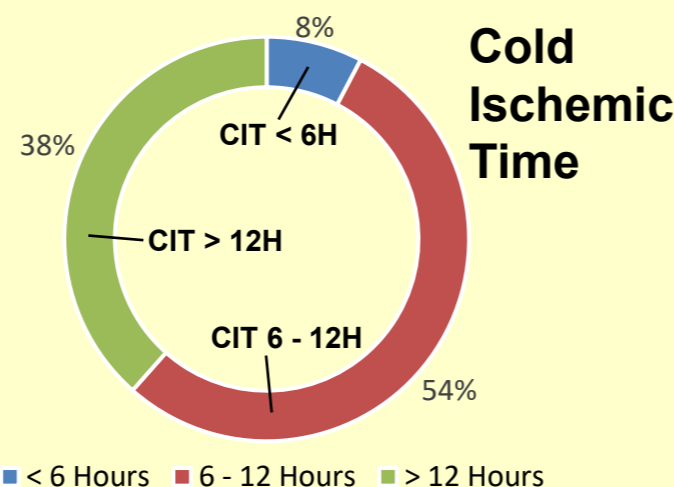
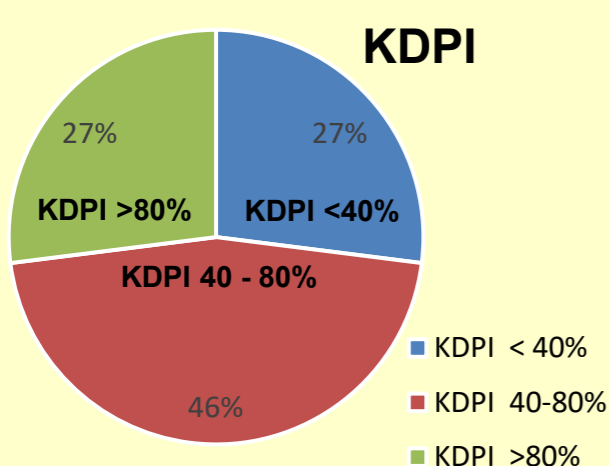
Total KAB = 108
 Total BPAR = 22 (20%)

BPAR Cohort:

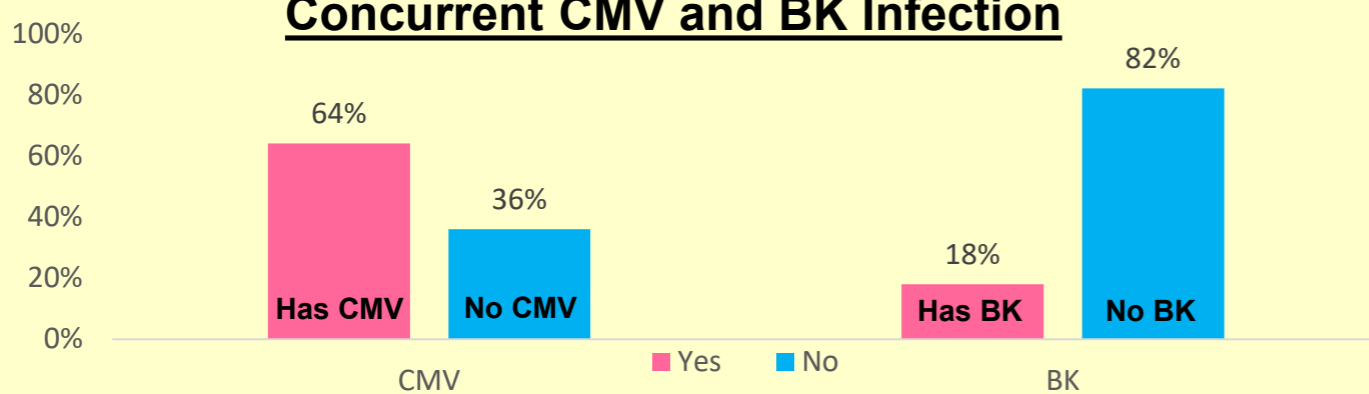
Living Related KTR = 27%
 Deceased Donor KTR = 73%



Characteristics of Cadaveric Donors



Concurrent CMV and BK Infection

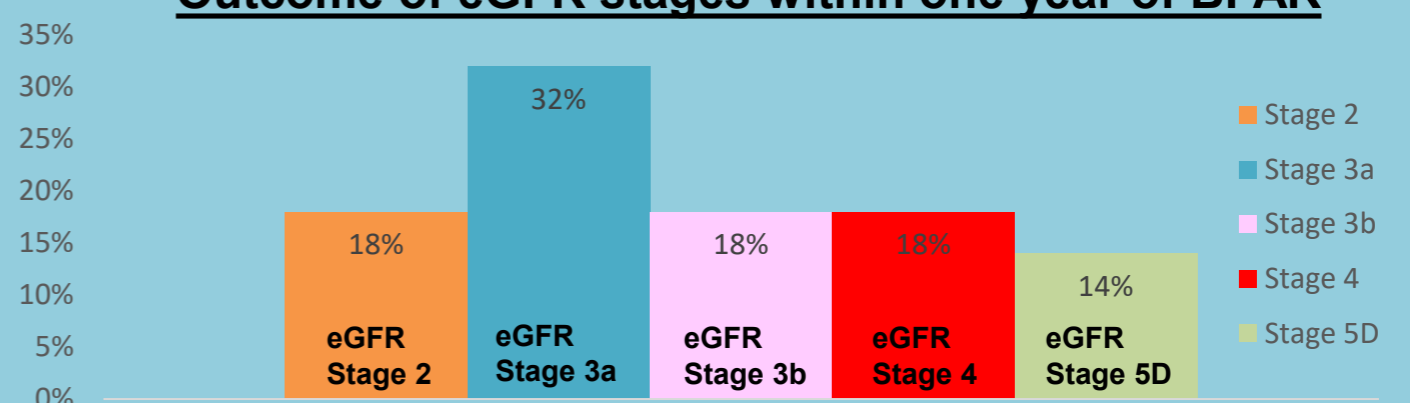


DEMOGRAPHICS	DETAILS	
Median Age (IQR)	36 years old (33 – 43 y/o)	
Race	Malay 77%	Chinese 23%
Gender	Male 68%	Female 32%
PRIMARY DISEASE	PERCENTAGE	
Unknown Etiology	60%	
1° Glomerulonephritis	32%	
Lupus Nephritis	4%	
Obstructive Uropathy	4%	
INDUCTION AGENTS	PERCENTAGE	
Basiliximab	57%	
Thymoglobulin	43%	
SENSITIZING EVENTS	PERCENTAGE	
Blood Transfusions (BT)	Had BT 87%	No BT 13%
Pregnancy (P)	Had P 10%	No P 90%
HLA Mismatches (M/M)	PERCENTAGE	
No Mismatch	6%	
4 Mismatches	29%	
5 Mismatches	41%	
6 Mismatches	24%	

Outcome

Within one year of BPAR, median creatinine was 152µmol/L (IQR 129 – 210µmol/L), not including dialysis-dependent KTRs.

Outcome of eGFR stages within one year of BPAR



BPAR was diagnosed early, within 3 weeks post-transplant in 50% of patients

Conclusion

This study has led to a better understanding of BPAR, which occurs early in many patients. Protocol biopsies should be considered for earlier detection which enables augmentation of immunosuppression and improves allograft longevity.