INFECTIONS IN KIDNEY TRANSPLANT RECIPIENTS : SINGLE CENTER EXPERIENCE FROM TERTIARY CARE CENTER IN SOUTH INDIA

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INTRODUCTION

- Infections occurring in the post transplant period are the major cause of morbidity and mortality in renal transplant recipients.
- Early infections (within the first month) are more likely to be due to nosocomially acquired pathogens, surgical issues, and some donor-derived infections.
- Opportunistic pathogens occur later after 6 months, reflects the greater impact of immunosuppressive therapies.
- Late infections may be secondary to opportunistic pathogens or conventional ones.

METHOD

- Retrospective observational study.
- Patients admitted with infections between November 2019 to march 2022 excluding covid 19 were studied.
- Infections were categorised based on time line of infection into less than one month, 1-6 months and more than 6 months.
- Further sub categorised based on type of organisms and source of infection.
- Baseline characteristics, microbiological evidence, radiological findings were studied.
- Complications including graft dysfunction and need for various supports such as O2, ionotropes, ventilator and dialysis and treatment details and in hospital patient outcomes were analysed.

RESULTS

- 53 patients were included in the study.
- Mean age of the study population was 35.2 years.
- 88.67% were males and 11.33% females .
- 66.03 % underwent live related renal transplant.
- 22.64 % of the study population had post transplant diabetes mellitus.
- There were 118 events of infection identified during the study period.
- Urosepsis being the the most common post-transplant infection, occurred in 36.44 % of total events followed by pneumonia in 19.49%
- There were 13 events of infection in the first month ,48 events in the period of 1 to 6 months and 57 events of infections after 6 months
- Most common organism isolated in patients with Urosepsis was Escherichia coli.
- 95.76% events were associated allograft dysfunction.
- In 15.25 % of events, patients had septic shock at presentation. Amongst them 44.44% had urosepsis, 33.33% had pneumonia, 22.22% had acute gastroenteritis.
- Among the patients who got admitted 18.86% expired during hospital stay,amongst them 60% had pneumonia and 30% had urosepsis and 10% had acute gastroenteritis.

BASELINE CHARACTERISTIC OF PATIENTS	(N=53)
AGE - MEAN	35.2 yrs
SEX - MALE- N(%)	47 (88.67)
LIVE TRANSPLANT - N (%)	35 (66.03)
PTDM - N (%)	12 (22.64)
IN HOSPITAL MORTALITY - N (%)	10 (18.86)
BASELINE CHARACTERISTIC (IN 118 EVENTS)	
DIALYSIS REQUIREMENT - N (%)	9 (7.62)
O2 SUPPORT - N (%)	18 (15.25)
VENTILATORY SUPPORT - N (%)	8 (6.77)
IONOTROPES - N (%)	18 (15.25)
ALLOGRAFT DYSFUNCTION - N (%)	113 (95.76)
MEAN HOSPITAL DAYS	23.2 DAYS

EVENTS	TOTAL EVENTS (118)	LESS THAN ONE MONTH(13)	ONE MONTH TO 6 MONTH(48)	MORE THAN 6 MONTHS (57)
UROSEPSIS	43	7	18	18
PNEUMOMIA	23	3	9	11
HEPATITIS B	1	1		
HERPES LABIALIS	1	1		
TB PLEURAL EFFUSION	1	1		
EUMTECTOMA	1		1	
TINEA CORPORIS	2		2	
CHROMOBLASTOMYOSIS	2		1	1
VARICELLA	2		2	
ESOPHAGEAL CANDIDIASIS	1		1	
ORAL CANDIDIASIS	4		2	2
TB LYMPHADENOPATHY	1		1	
PULMONARY TB	3		1	2
MILARY TB	1		1	
GASTROENTERITIS	6		2	4
CMV	7		5	2
PERINEAL ABSCESS	2			2
THIGH ABSCESS	5		2	3
SCROTAL ABSCESS	1			1
CONDYLOMA ACUMINATA	1			1
HERPES ZOSTER	5			5
BKVN	3			3
MENINGITIS	1			1
DENGUE	1			1

UROSEPSIS	43 EVENTS
ECOLI	20
PSEUDOMONAS	6
KLEBSEILLA	7
CANDIDA	2
ENTEROBACTER	1
ENTEROCOCCUS	1
NO ORGANISM	6
PNEUMONIA	**23 EVENTS**
KLEBSEILLA	9
CANDIDA	1
E COLI	1
NO ORGANISM	2
ASPERGILLUS	4
BURKOLDERIA	1
ACINETOBACTER+KLEBSIELLA	1
ACINETOBACTER	1
PNEUMOCYSTIS CARINI	1
STAPHYLOCOCCUS +PSEUDOMONAS	1
E COLI + KLEBSELLA	1
SUBCUTANEOUS ABSCESS	**8 EVENTS**
KLEBSEILLA	1
STAPHYLOCOCCUS AUREUS	5
KLEBSEILLA+PSEUDOMONAS	1
PROTEUS	1
GASTROENTERITIS	**6 EVENTS**
NO ORGANISM	2
CRYPTOSPORIDIUM	1
SALMONELLA	1
ENTEROBACTER	1
CLOSTRIDIUM DIFFICILE	1
CRYPTOCOCCAL MENGITIS	1

CONCLUSIONS

- Patients who undergo renal transplantation are subjected to immunosuppression which increase the burden of infections in the post-transplant period .Early and accurate diagnosis is the key to prevent morbidity and mortality of renal transplant recipients .

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