

A CASE SERIES OF MALIGNANCY IN POST KIDNEY TRANSPLANTATION: A SINGLE CENTRE EXPERIENCE

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INTRODUCTION

The cumulative incidence of malignancy in solid organ transplant was reported to be 11-15% and it is the commonest cause of mortality.

AIMS

- To review the incidence of malignancy after kidney transplantation.
- To review the characteristics of patients with malignancy post kidney transplantation, their risk and outcome.

METHODS

- Retrospective analysis of all renal transplant recipients at our institution over the last twenty years (2002-2022).
- The patient's characteristics, malignancy types, immunosuppression regimen and risk factors and their outcome were reviewed

RESULTS

- 8 out of 69 patients developed malignancy (11.5%) and occur exclusively in male patients.
- Most common malignancy was Post Transplant Lymphoproliferative Disorder (PTLD), 50%, followed by nasopharyngeal carcinoma, 25%, and one squamous cell carcinoma and one colorectal cancer.
- Most of the PTLD was incidentally diagnosed from transplant biopsy for worsening renal function.
- Two patients had NPC not long after transplantation; suggestive of possible preexisting undiagnosed malignancy.
- Majority of PTLD was treated with reduction of immunosuppression.
- Majority of the patient pass away due to the disease or its complications.

Patient	Pt 1	Pt 2	Pt 3	Pt 4	Pt 5	Pt 6	Pt 7	Pt 8
Type of transplant	Living non related	Living non related	Living non related	Cadaveric transplant	Living non related	Living non related	Cadaveric transplant	Living non related
Immunosuppression at diagnosis	Cyclosporin A Prednisolone Cellcept	Tacrolimus Prednisolone Cellcept	Cyclosporin Prednisolone Cellcept	Cyclosporin A Cellcept	Azathioprine Cyclosporin A Prednisolone	Prednisolone Cellcept Sirolimus	Prednisolone Cellcept Cyclosporin A	Prednisolone Cellcept Cyclosporin A
Age at diagnosis	69	54	67	65	55	33	34	42
Duration post transplant at diagnosis	108 months	118 months	24 months	36 months	24 months	13 months	16 months	39 months
Types of malignancy	Squamous cell carcinoma	High Grade T cell lymphoma (Left submandibular lymph node)	Nasopharyngeal carcinoma	Nasopharyngeal carcinoma	Sigmoid cancer	PTLD	PTLD with systemic involvement	PTLD
Treatment for the cancer	Surgical excision	CHOP Chemotherapy 6 cycles with reduction in immunosuppression	Unknown	Unknown	Left hemicolectomy	Reduction of immunosuppression	Reduction in immunosuppression Rituximab 4 doses	Reduction in immunosuppression Rituximab 4 doses, IV Immunoglobulin
Outcome of disease and patients	No recurrence. Patients alive	Remission after 6 cycles. Patients pass away due to septicemia	Patient pass away	Patient pass away	Patient pass away after recurrence of the cancer.	Cured. Patients alive.	Cured. Patients alive	Patient pass away due to septicemia.

DISCUSSIONS

- The incidence of malignancy in our centre is comparable to the reported incidence in other centres.
- Only one skin cancer incidence in our cohort despite skin malignancy being the most common malignancy reported post solid organ transplant suggestive the geographical difference on type of malignancy.
- PTLD occur at much younger age and majority presented within 18 months of transplantation which is in keeping with reported data.
- Immunosuppression regimens has an effect on the incidence of malignancy particularly cyclosporin, but all of our patients were receiving standard dose of the treatment.
- EBV infection is particularly associated with haematological malignancy but the EBV status of the donor for most of our patient were unknown.
- The induction agent was unknown to us for many of the patients as they were commercial transplant, but study has shown the effect of induction therapy and its relation to the incidence of malignancy.

CONCLUSION

Our incidence of malignancy after renal transplant were comparable to other centers however the type of cancer differed probably due to different risk factors reflecting the variation that might impact the different strategies in post-transplant malignancy surveillance.

References:

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