Post- transplant lymphoproliferative disorder in adult solid organ transplant recipients: Case series and single – centre experience

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BACKGROUND

Posttransplant lymphoproliferative disorders (PTLDs) comprise a heterogeneous group of lymphoid or plasmacytic proliferation or neoplasms, can occur after solid organ transplantation (SOT) or hematopoietic stem cell transplant (HSCT).PTLDs comprise approximately 20% of all malignancies after solid organ transplantation. The incidence of PTLD in adult is dependent on several factors: the allograft , EBV status, and the degree of immunosuppressant .

OBJECTIVE

To present seven cases of post-transplant lymphoproliferative disease observed in our centre among solid organ transplant recipient.

REFERENCE

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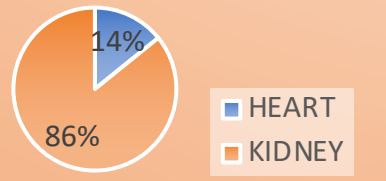
METHODS

We performed a retrospective single-Centre assessment of PTLD incidence in adult solid organ transplant recipients under our Centre follow up from year 2010-2021. Total seven cases of PTLD, four men and three women, aged 26-61 at the time of diagnosis of PTLD, transplanted between 1990-2016. We reviewed the follow variables from database: sex, race, age, transplant type, immunosuppression regime, EBV status, time from kidney transplant to PTLD diagnosis, treatment given and outcome.

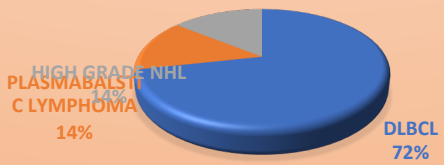
RESULT

We identified 7 cases PTLD in solid organ transplant recipient from year 2010-2021. Histological subgroup included 5 cases DLBCL, 1 case of plasmablastic lymphoma, 1 case high grade NHL. Median time from transplant to PTLD diagnosis was 12.8 years (range from 1-29 years). EBV status was unknown in 2 cases, negative for 2 cases, positive for 3 cases. 3 cases of stages III/IV advanced disease at diagnosis, 4 cases of Stage I/II at diagnosis. 1 out of 7cases developed PTLD in the transplanted graft. For treatment regimen, in addition of RIS and switching immunosuppressant, 1 case achieved remission after 4 cycles rituximab monotherapy, 1 case received 4 cycles rituximab followed by 5 cycles rituximab and 7 cycles half CHOP, 3 case treated with RCHOP chemotherapy, 1 case with velcade based chemotherapy and 1 case received RCHOP/DHAC/RICE and followed autologous stem cell transplant. Total 4 patients passed away while receiving treatment. 3 out 4 patients died of cardiovascular complication and 1 case died of treatment complication. 3 out of 4 cases died within 2 years after PTLD diagnosis

TRANSPLANT TYPE



PTLD TYPE



TABLE

MORTALITY RATE

TIME FROM DIAGNOSIS	PERCENTAGE (%)
Less than 2 years from diagnosis	42.8%
More than 2 years from diagnosis	14.2%

IMMUNOSUPPRESSANT EXPOSURE

Immunosuppressant agent	Percentage (%)
CYCLOSPORIN	28.4%
MYCOPHENOLATE MOFETIL	57.1%
TACROLIMUS	57.1%
EVEROLIMUS	42.8%

EBV STATUS AND PREVELANCE

EBV STATUS	PREVELANCE	EARLY ONSET	LATE ONSET
POSITIVE	3	1	2
NEGATIVE	2	0	2
UNKNOWN	2	0	2

CONCLUSION

Post-transplant lymphoproliferative disorder (PTLD) is an important complication of the changed immunological environment after transplantation and also potentially life threatening complication. PTLD after solid organ transplantation may carry a poorer prognosis than lymphoma in immunocompetent individuals.