RISK FACTOR AND PROGNOSIS OF RECURRENT IgA NEPHROPATHY AFTER KIDNEY TRANSPLANTATION

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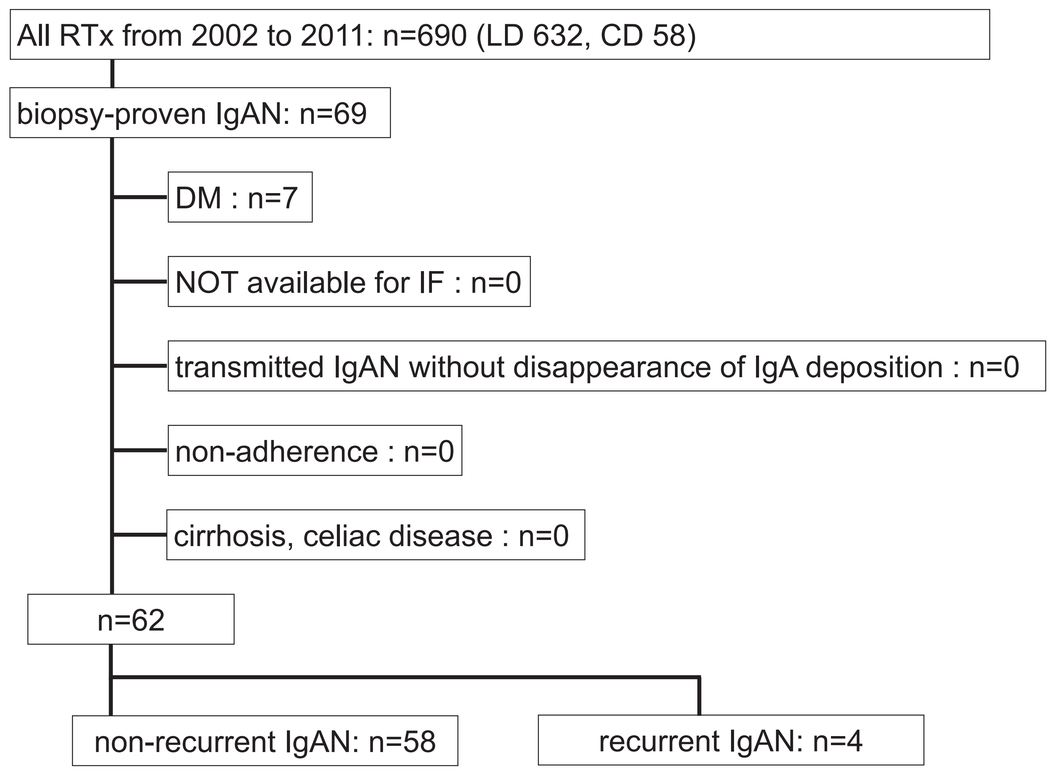
INTRODUCTION AND AIMS

There are a few studies showing that the long-term allograft survival of patients with IgA nephropathy (IgAN) is lower than that of non-IgAN, indicating that the cause of lower graft survival is recurrence of IgAN. There have been no large, prospective studies defining the risk factors contributing to the development of recurrent IgAN (rIgAN), and preventive therapy for rIgAN is unknown. The objective of this study is to assess prognosis for rIgAN and to find risk factors of rIgAN.

METHODS

Retrospective data were collected from 2002 to 2011 on 69 consecutive biopsy-proven IgAN patients who received kidney transplantation (KTx) at our center. 7 cases concurrent with diabetes mellitus were excluded. The cases of IgA vasculitis were not included in this study. The diagnosis of rIgAN was made by biopsy, and was defined as immunofluorescent positive staining for IgA in the mesangial area and active lesion in light microscopy including crescents and tuft necrosis with fibrin.

Study flow chart



RESULTS

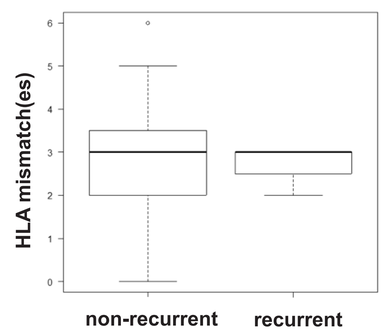
	non-recurrent n=58	recurrent n=4	P-value
Sex of the recipient M/F (cases)	34/24	3/1	0.642
Recipient age at tx (years)	38.4±10.5	32.5±16.4	0.528
Donor age at tx (years)	55.6±9.2	56.8±3.3	0.528
follow up (months)	65.8±34.1	76.0±37.1	0.627
max HbA1c (NGSP)	4.62±2.20	3.70±3.27	0.675
Duration of dialysis (months)	35.7±56.3	7.8±14.2	0.0181
Duration of CKD (months)(from RBx to ESRD)	115.1±75.0	73.8±109.3	0.507
PEKT (cases)	18	2	0.591
HD (cases)	41	2	0.58
PD (cases)	10	0	1
ABO incompatible (cases)	17	0	0.568
Pulse+Rit+PEx	6	2	0.0774
Steroid pulse	4	1	0.23
Rituximab (cases)	3	2	0.0158
DFPP and/or PEx (cases)	1	0	1
Splenectomy (cases)	7	0	1
MMF (cases)	44	3	1
Basiliximab for induction (cases)	57	4	1
living-related donor kidney (cases)	42	4	0.565
tonsilx before tx (cases)	7	2	0.0971
tonsilx before tx + 1y after tx (cases)	19	2	0.599
donor-transmitted IgAN (cases)	5	1	0.357
IgA before tx (mg/dL)	246.1±94.2	347.5±85.6	0.329
HLA A2 (cases)	21	1	1
HLA B35 (cases)	3	1	0.251
HLA DR4 (cases)	35	1	0.289
HLA B8 (cases)	0	0	–
HLA DR3 (cases)	0	0	–

Duration of dialysis is significantly shorter in recurrent IgAN than in non-recurrent IgAN (35.7±56.3 months vs. 7.8±14.2 months, p=0.0181). Duration from native kidney biopsy to end-stage renal disease in non-recurrent IgAN and recurrent IgAN is 115.1±75.0 months and 73.8±109.3 months (p=0.507), respectively.

Immunosuppressive resimens	non-recurrent n=58	recurrent n=4
PSL+CyA+MMF	29	3
PSL+FK+MMF	9	0
PSL+GFK+MMF	5	0
PSL+CyA+EVR (without MMF)	2	0
PSL+FK+MZ (without MMF)	2	0
PSL+CyA+MZ (without MMF)	4	1
PSL+CyA+CY	1	0
PSL+FK+CY	3	0
PSL+FK+CY+ALG	1	0
PSL+CyA+FTU720	1	0

Fisher's exact test p=0.856

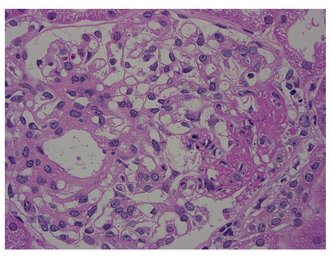
HLA mismatch(es)

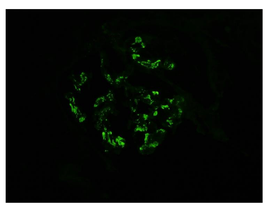


Mann-Whitney U test p=0.677

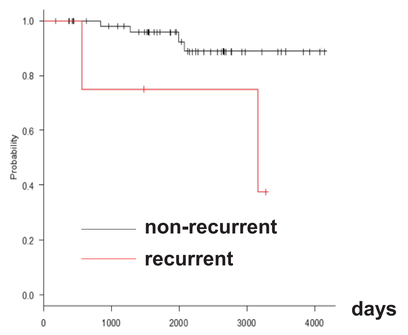
	non-recurrent	recurrent
Rejection (+)	7	1
Rejection (-)	51	3

Fisher's exact test p=0.433



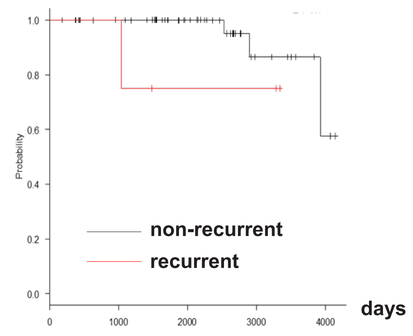


Doubling of serum creatinine



p=0.0334

Graft survival



p=0.205

CONCLUSIONS

Short duration of dialysis was a risk factor for short time to doubling of serum creatinine in KTx in patients with recurrent IgAN.

References

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