

CHANGES IN IMMUNOSUPPRESSIVE MEDICATION AFTER KIDNEY TRANSPLANTATION – NPRTSG Registry data

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Background

- There are a lot of data available on the initial immunosuppression in pediatric kidney transplant (KT) recipients.
- However, knowledge of changes in the maintenance immunosuppression is scarce.
- The medication can be modified for several reasons, such as rejections, viremias, medical side effects and PTLD.
- We studied changes in calcineurin inhibitor and antimetabolite medications in pediatric KT recipients in the Nordic countries.

Methods

Subjects

- Data were collected retrospectively from the ScandiTransplant pediatric registry (Nordic Pediatric Renal Transplantation Study Group, NPRTSG)
- This registry includes all pediatric KT in the Nordic countries
- The inclusion criteria were
 - KT between the years 2005 and 2016
 - Age below 16 years at transplantation
 - Post-transplant follow-up time at least two years

Results

- 482 children received KT between the years 2005 and 2016.
- 345 of them had at least 2 years follow-up and met the inclusion criteria.

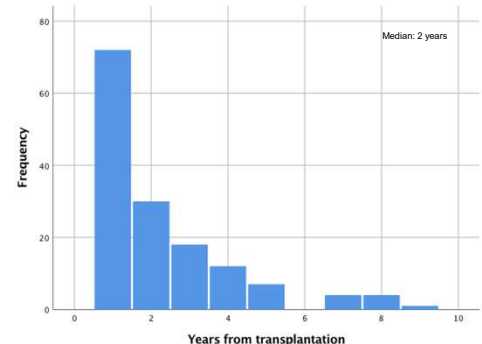
Changes of initial immunosuppression

- 161 (47.1%) patients underwent a change in calcineurin inhibitor or (and) antimetabolite medications (Table)
- CsA → Tac was the most common transition
 - 41.6% of all changes
- Antimetabolites remained mostly unchanged

Changes in initial immunosuppression. The data are presented on all KT recipients and grouped according to the age at KT.

	under 2 years n = 72	2-5 years n = 58	5-16 years n = 215	Total n = 345
Calcineurin inhibitors				
Cyclosporine	n = 42	n = 14	n = 37	n = 93
1. <u>No change</u>	14 (33.3%)	3 (21.4%)	9 (24.3%)	26 (28.0%)
2. <u>CsA → Tac</u>	28 (66.7%)	11 (78.6%)	28 (75.7%)	67 (72.0%)
3. <u>CNI stop</u>	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Tacrolimus	n = 29	n = 44	n = 176	n = 249
1. <u>No change</u>	25 (86.2%)	41 (93.2%)	168 (95.5%)	234 (94.0%)
2. <u>Tac → CsA</u>	2 (6.9%)	1 (2.3%)	2 (1.1%)	5 (2.0%)
3. <u>CNI stop</u>	2 (6.9%)	2 (4.5%)	6 (3.4%)	10 (4.0%)
Antimetabolites				
MMF	n = 24	n = 36	n = 152	n = 212
1. <u>No change</u>	6 (25%)	16 (44.4%)	132 (86.8%)	154 (72.6%)
2. <u>MMF → AZA</u>	7 (29.2%)	6 (16.7%)	10 (6.6%)	23 (10.8%)
3. <u>Antimetabolite stop</u>	11 (45.8%)	14 (38.9%)	10 (6.6%)	35 (16.5%)
AZA	n = 45	n = 14	n = 47	n = 106
1. <u>No change</u>	31 (68.9%)	10 (71.4%)	33 (70.2%)	74 (69.8%)
2. <u>AZA → MMF</u>	7 (15.6%)	3 (21.4%)	12 (25.5%)	22 (20.8%)
3. <u>Antimetabolite stop</u>	7 (15.6%)	1 (7.1%)	2 (4.3%)	10 (9.4%)

Time from transplantation to the immunosuppression change



Concurrent rejection

- Immunosuppression change overall
 - 17.5% of cases had concurrent rejection
- CsA → Tac
 - 23.9% of cases had concurrent rejection

PTLD

- There were 10 recorded PTLD cases
 - 8 with Tac as an initial CNI
 - 2 with CsA as an initial CNI

Conclusion

The majority of the patients with CsA as an initial immunosuppression were converted to Tac during the follow-up. In most cases the change was done for other reasons than rejection or PTLD. Antimetabolites remained mostly unchanged.

ON BEHALF OF THE NORDIC PEDIATRIC RENAL TRANSPLANTATION STUDY GROUP