ATSI Transplant Recipients in WA- where are we now?

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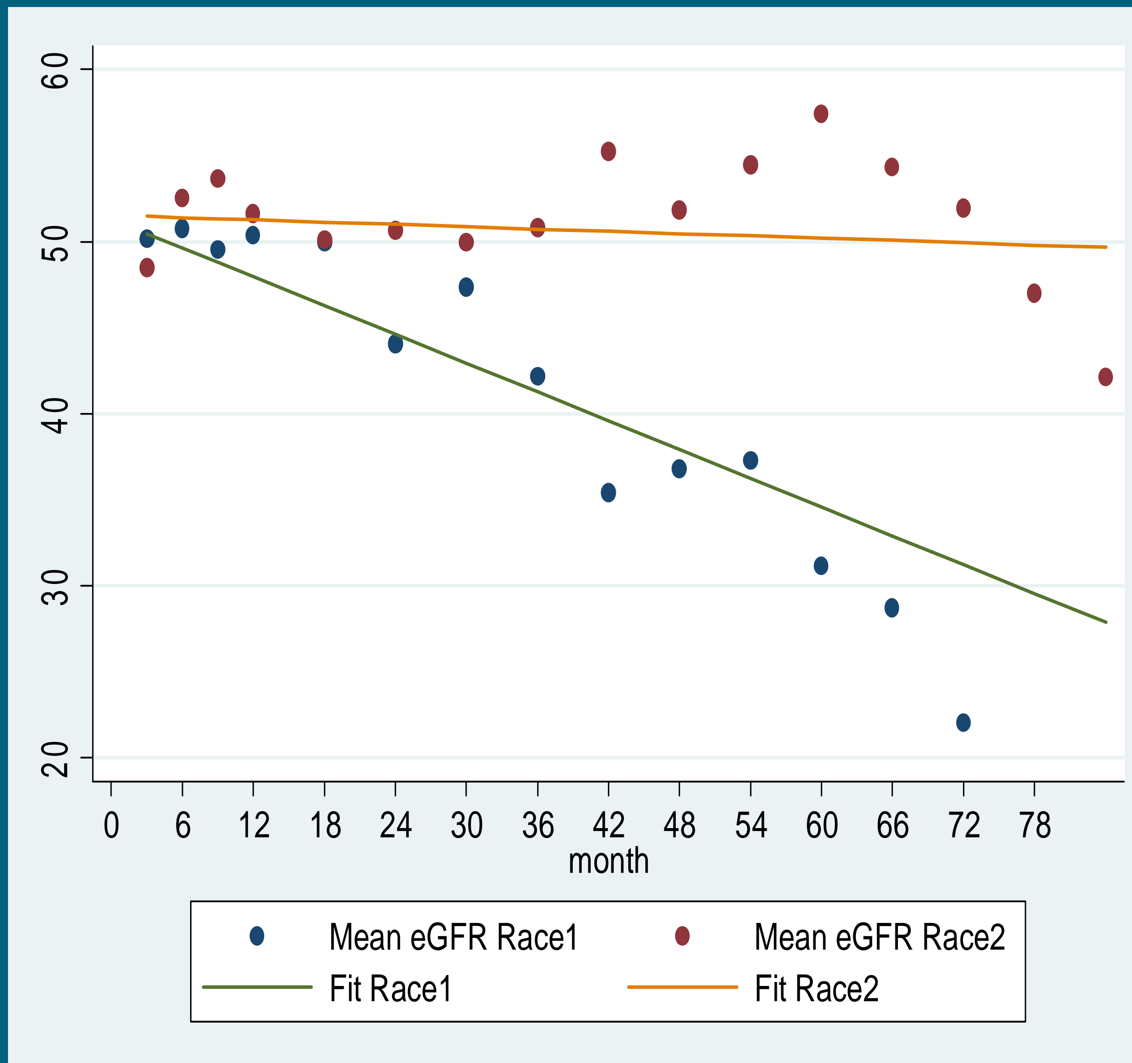
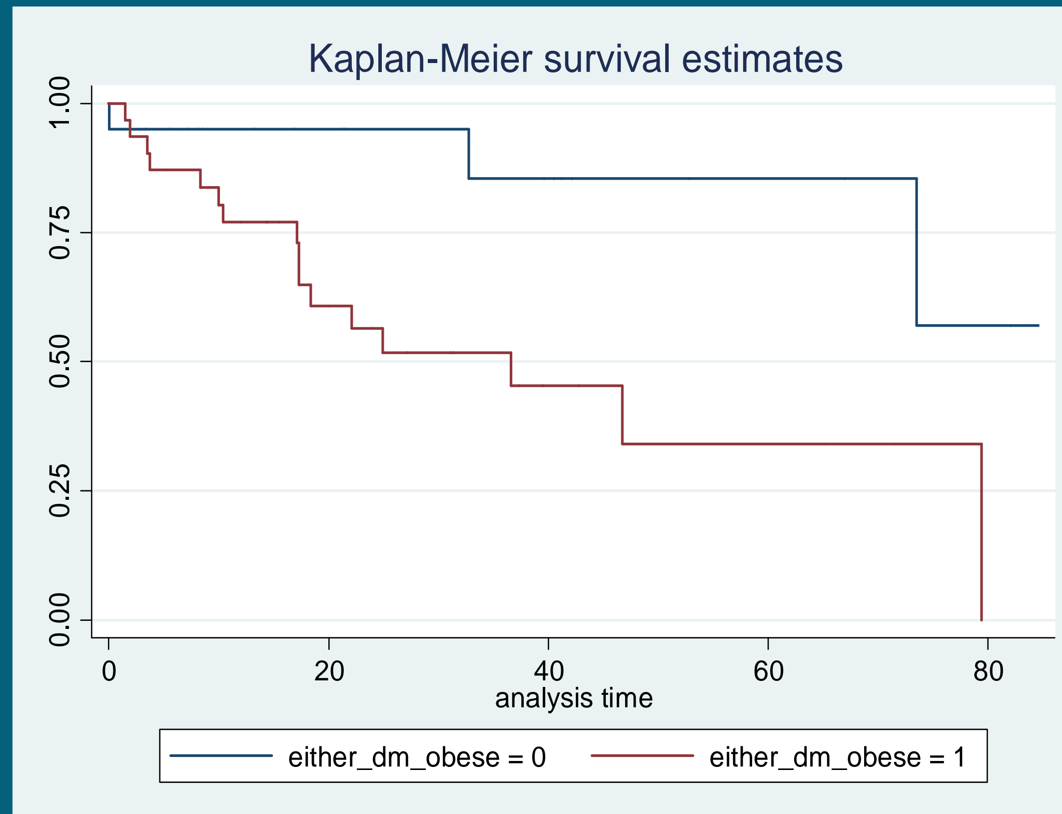
Objectives

- Review the outcomes of ATSI renal transplant recipients in WA 2012 – 2013

Graft Function



What Causes Graft loss in the ATSI?



Diabetes +Obesity HR =30!

What about the Non ATSI

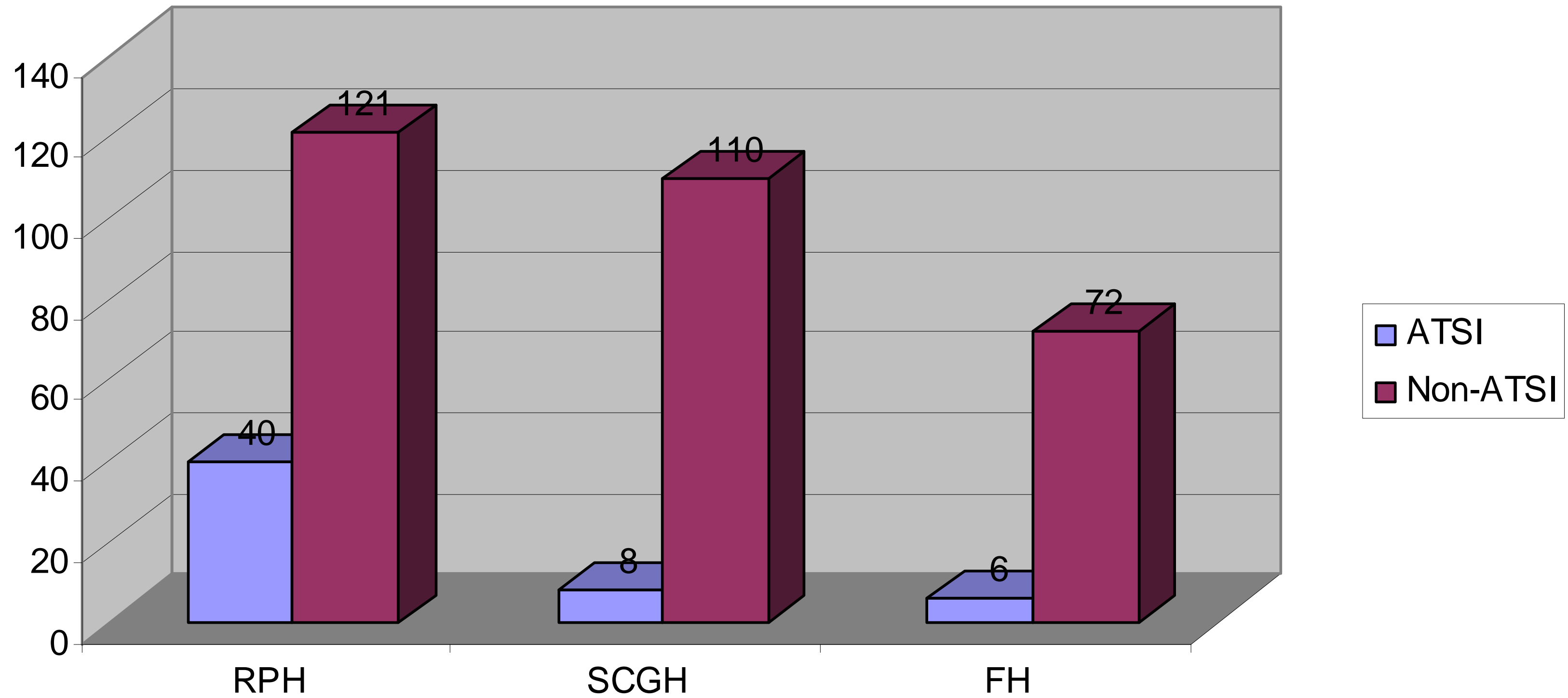
	HR	Std. Er	P >IzI	95% CI
ATSI	0.8	0.5	0.7	0.2, 2.9
DM_Obese	0.1	0.1	0.07	0.2, 1.2
ATSI _DM_Obese	30.4	37.4	0.006	2.8, 339

- The HR for composite death & graft loss increases 30 fold for Obese / DM ATSI compared with obese/DM non-ATSI.

And

- More NODAT such that 75% all ATSI were diabetic
- More late rejections (non-compliance)

Number of Transplants 2005-2011



So what did we do?

- Halted ATSI transplants to review all existing TWL patients.
- Consider obesity AND diabetes an EXCLUSION for TWL
- Revise protocol to steroid avoidance
- Actively review all patients on or referred for listing
- Standardise review process

WA ATSI Transplant Activity 2012-13

Transplants

Year	RPH	SCGH	FH	Total WA	
2012	4	0	1	85	6%
2013	3	1	0	73	5%

Current CWL

Hospital	ATSI	Non-ATSI
RPH	1	11
SCGH	0	14
FH	0	15

What Happened

- Since Jan 2012
- 7 ATSI Transplants
  - 5 rapid steroid wean (10 days)
  - Basil / Tac and MMF
  - 3 month and 12 month biopsy

	TL	TT	BMI	Pre-DM	NODAT	eGFR	Rej	Com
62F (P)	7	19	28	no	no	23	no	no
39F(M)	25	27	24	no	no	64	no	no
43F(G)*	26	37	27	yes	-	67	no	no
46M(K)*	15	30	35	no	yes	43	no	no
21F(K)*	11	12	19	no	no	54	no	Yes
50F(P)*	2	3	23.5	no	no	47	no	no
38F(P)*	73	74	27	no	no	23	no	Yes
47M(M)	11	15	16	no	no	>60	no	no
37M(M)	14	15	30.3	no	yes	54	no	no

2 episodes of wound dehiscence/haematomas requiring surgical drainage

Future

- Caution and Selective listing
- Avoid obesity and diabetes combination
- Continue steroid avoidance and low dose immunosuppression
  - ?role of Prednisolone metabolism in ATSI
- Early days, greatest risk is after removal from intense supervision in Perth.

Solutions……

- Stringent Selection
- Modification of immunosuppression
- Other?

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Morbidity

	ATSI	Non-ATSI	P-value
Initial LOS	Mean 20.6 +/- 22 Med 9 (6,16)	8.4 +/- 8 Med 7 (6,9)	0.003
Unplanned admissions in 1st year	2.3	1.5	0.05
Hospitalized days in 1st year	Mean 20.6 +/- 23 Med 12 (3,37)	Mean 12 +/-18 Med 3(0,18)	0.02
ICU visit	26%	9%	0.02
Time in ICU	205 hours	113 hours	0.02

Graft Loss

- 33% graft loss vs. 11% (P=0.001)
- Actual Numbers
  - 19 /58 vs.9/83
  - HR is 3.1 95% CI (1.5,6.5) p=0.002.
- ATSI: 50% was due to non-compliance and rejection

NODAT

- 74% of ATSI have PTDM vs. 33% of controls P <0.001
- NODAT 30 % vs. 18 %
- HbA1C 7.5 vs. 6.5 (p=0.001)

BPAR

- Cellular rejection
  - 50% ATSI vs.36% (NS)
  - Time to first Rejection: 10 months vs. 3.2 months (P=0.01)
- ABMR
  - 20% ATSI vs. 11% (NS)
  - 9 months vs. 7 months
- Mixed picture more common in ATSI

Remote vs. Metro

- Kimberley 17
- Pilbara 17
- Metro 19
- Others 4
- No difference in
  - Patient survival
  - Graft survival