

RENAL TRANSPLANTATION FOR PATIENTS WITH AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE: LONG TERM FOLLOW-UP AND IMPORTANCE OF INTRACRANIAL ANEURYSMS ON OUTCOMES

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INTRODUCTION

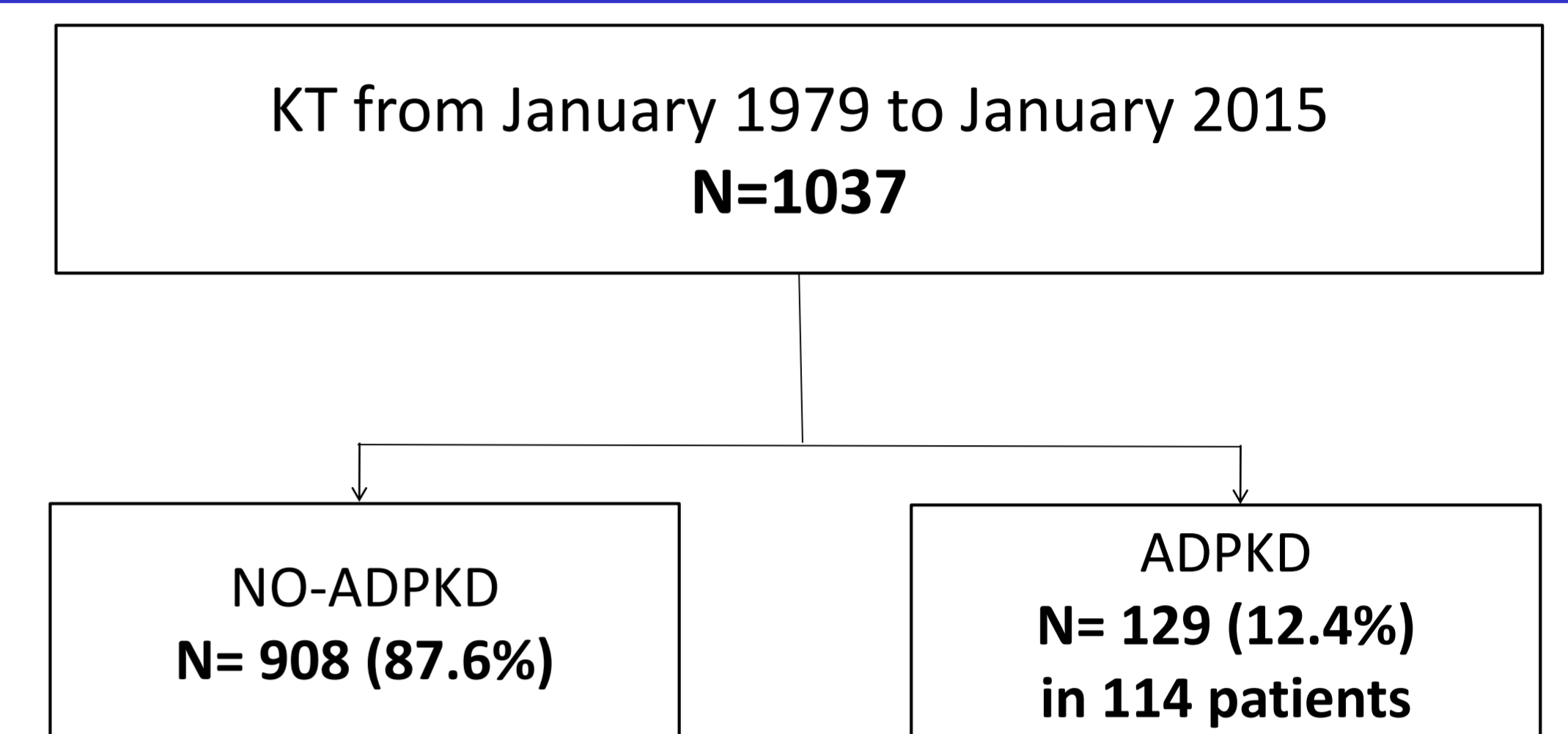
- Some studies suggest that there is graft and patient survival advantage in ADPKD patients when age-matched compared to other ESRD patients.
- Intracranial Aneurysms (IA) prevalence in general population is 1.8%. In Autosomal dominant polycystic kidney disease (ADPKD) patients is 6.9 a 12.4 %. (1),(2) When there's A family history of IA prevalence is 22% (3)
- There's no consensus about screening for aneurysms of ADPKD patients before Kidney Transplantation (KT) .

OBJECTIVES

1. To evaluate the prevalence of IA and secondary mortality in ADPKD RTR.
2. To analyze allograft and patient survival in a cohort of ADPKD Renal Transplant Recipients (RTR).
3. To evaluate long-term outcomes in a cohort of RTR with ADPKD and establish a comparison with a no-ADPKD cohort

MATERIALS AND METHODS

- Retrospective observational study
- Patient and graft survival 3-5-10 years post-KT were assessed.
- Brain imaging tests were employed when symptoms were present or when patients had familial history of IA. They were not used as screening tests in asymptomatic patients.



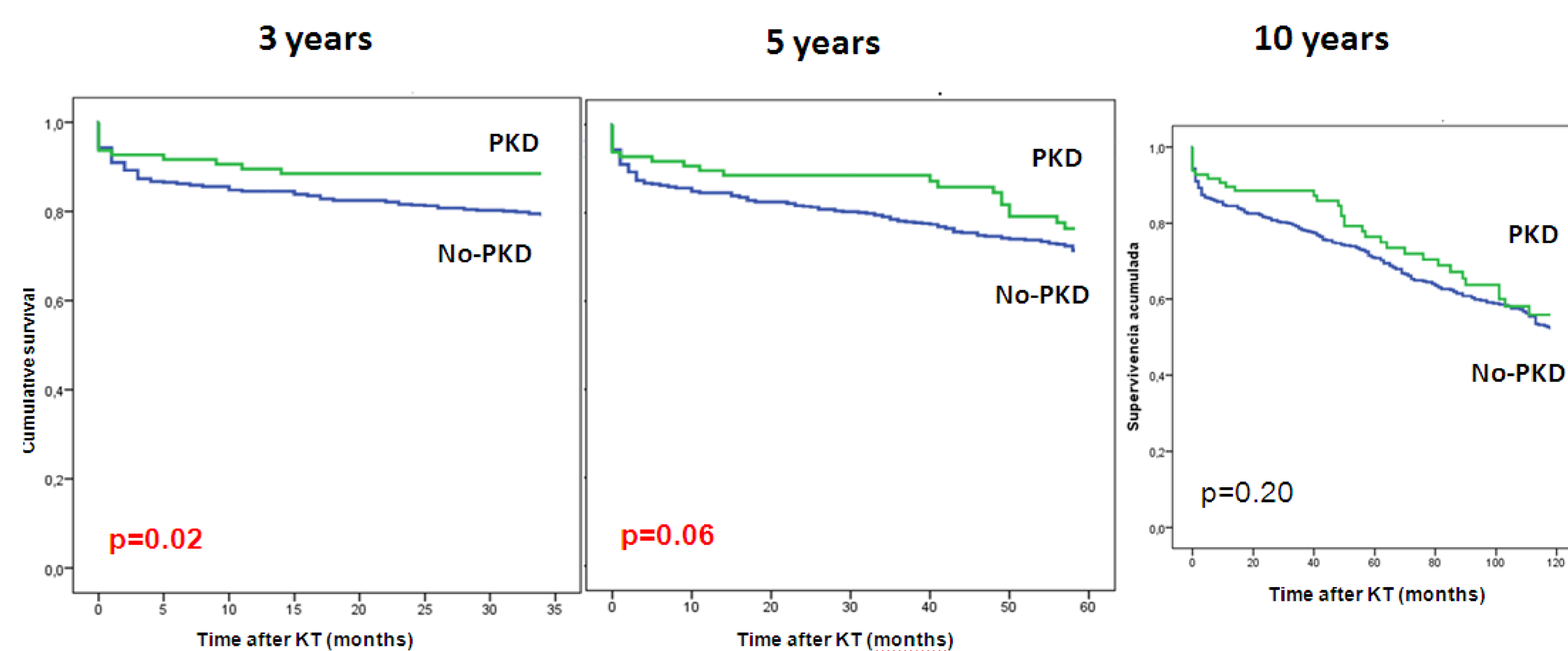
RESULTS

	ADPKD (N=129)	No-ADPKD (N=908)	p
Recipient characteristics			
Age (mean ± SD)	53.7±10.1	47±14.6	<0.001
Gender[women] (n. %)	64 (49.6%)	323 (31.1%)	0.008
Time renal replac. (months, median IQR)	27.3 (23)	31.2 (30.2)	NS
PRA>5% (n,%)	23 (17.8%)	175 (19.4%)	NS
Donor characteristics			
Age (mean ± SD)	50.2 (±14.7)	46.4 (±16.8)	0.01
Gender[women] (n. %)	54 (5.3%)	359 (35%)	NS
Type of donor (n.%)	117 (11.4%)/ 45 (34.9%)	795 (77.6%)/247 (27.3%)	NS
Cadaveric /Expanded Living	9 (0.9%)	104 (10.1%)	
Delayed graft function	59 (46.1%)	346 (38.4%)	NS
Follow-up			
Biopsy proven Acute rejection (n,%)	7 (12.5%)	131 (25.5%)	0.003
Graft loss (n,%)	35 (27.3)	352 (39.4%)	0.02
Death with functioning graft (n,%)	16 (12.4%)	114 (12.5%)	NS

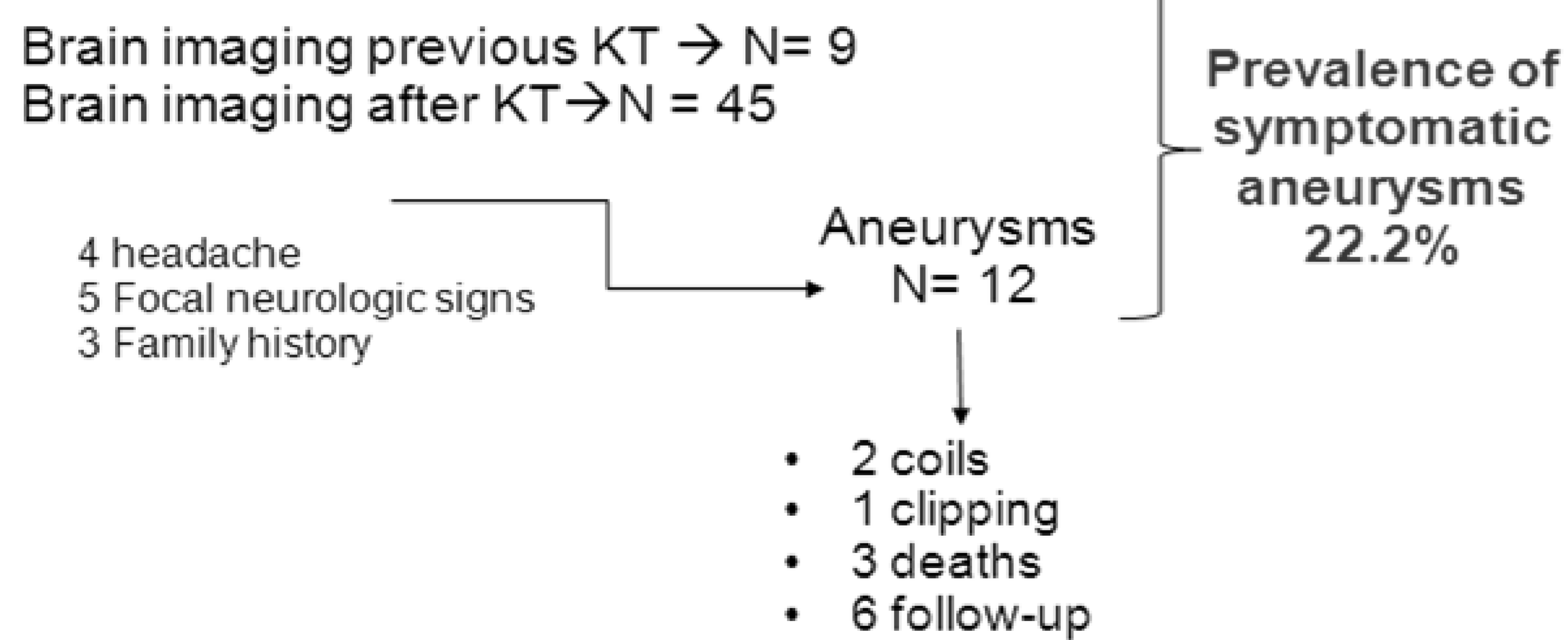
Cox Regression: Graft Loss

	HR	CI (95%)	p
PKD	0.69	0.48-1.01	0.05
Recipient age (years)	0.99	0.98-1.01	0.40
Recipient sex [women]	1.25	1.0-1.5	0.05
Donor age (years)	1.02	1.01-1.03	<0.001
Renal biopsy proven rejection(n,%)	2.7	2.09-3.56	<0.001

Patient survival



Prevalence of aneurysms and mortality due to aneurysmal hemorrhage



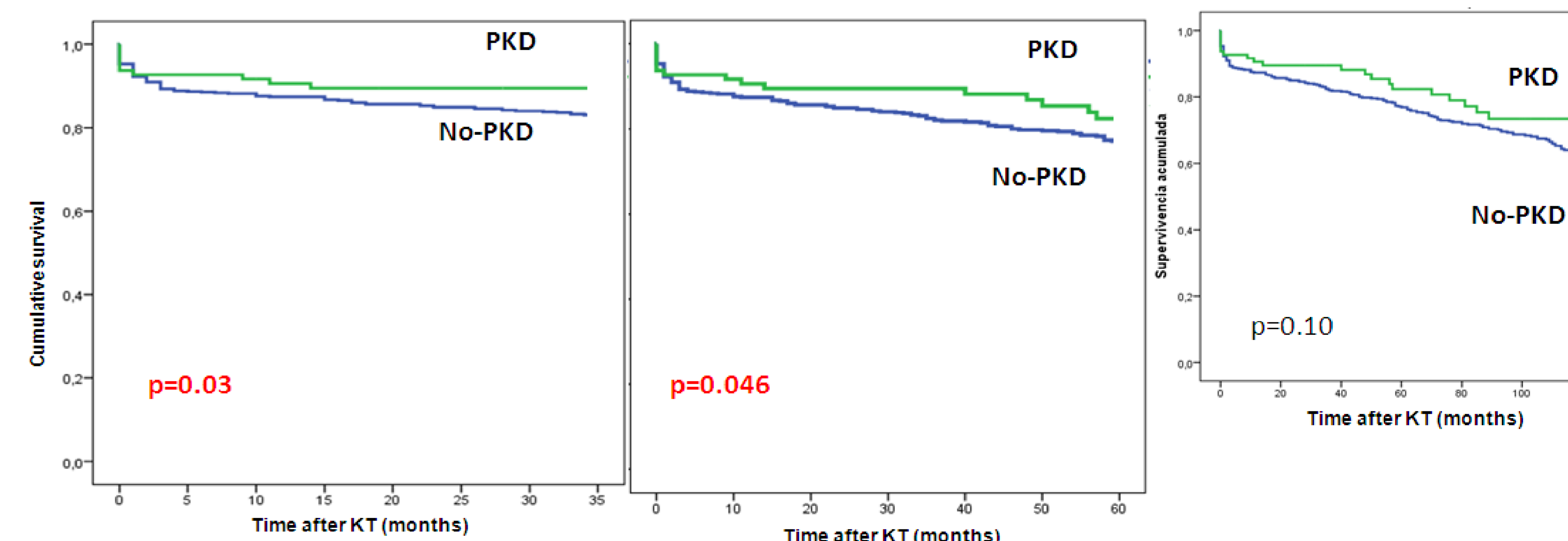
Global Deaths → N= 15

IA due to aneurysm → N= 3 Mortality 20%

Other causes of death:

- Cancer N=8 (53,4%)
- CV N=3 (20%)
- Unknown N=1 (6,6%)

Graft survival



CONCLUSIONS

- Patients with ADPKD have better survival rates than non-ADPKD recipients.
- Hemorrhage due to ruptured brain aneurysms is a potential complication with important consequences in ADPKD KT recipients. There may possibly be sufficient net benefit to screening these patients for IA.

(1) M Vlak et al. Lancet Neurol 2011.
(2) Vernooij et al. N Engl J Med, 2007
(3) W. Xu Stroke 2011

