

BACKGROUND

- Patients with end-stage renal disease (ESRD) and HIV-infection (HIV+) have higher mortality on dialysis than those without HIV.
- HIV+ dialysis patients may face barriers to kidney transplantation (KT) from delayed referrals or factors identified at the time of evaluation.

METHODS

Study Population

- 3,203 adult ESRD patients in prospective, longitudinal, multi-center study evaluated for KT (11/2009-01/2018)

Analyses

- Exposure: HIV-infection
- Outcome: Time to listing for KT
- Methods:
 - Comparisons using rank-sum (for continuous variables) and Fisher’s exact (for categorical variables) tests
 - Kaplan-Meier plots with log-rank test
 - Adjusted Cox regression

RESULTS

Characteristics	HIV+	HIV-	p-value
N (%)	98 (3.1%)	3105 (96.9%)	
Age, Median (IQR)	54 (44-58)	56 (45-65)	<0.01
Men, %	72	59	<0.01
African American, %	91	43	<0.001
Diabetes, %	26	43	<0.001
Frailty, %	21	19	0.7
Cognitive Impairment, %	15	6	<0.01
Time on Dialysis, Median (IQR)	2.4 (0.8-4.7)	1.3 (0.5-3.2)	<0.01

Table 1. Characteristics of patients referred for kidney transplant evaluation by HIV-status.

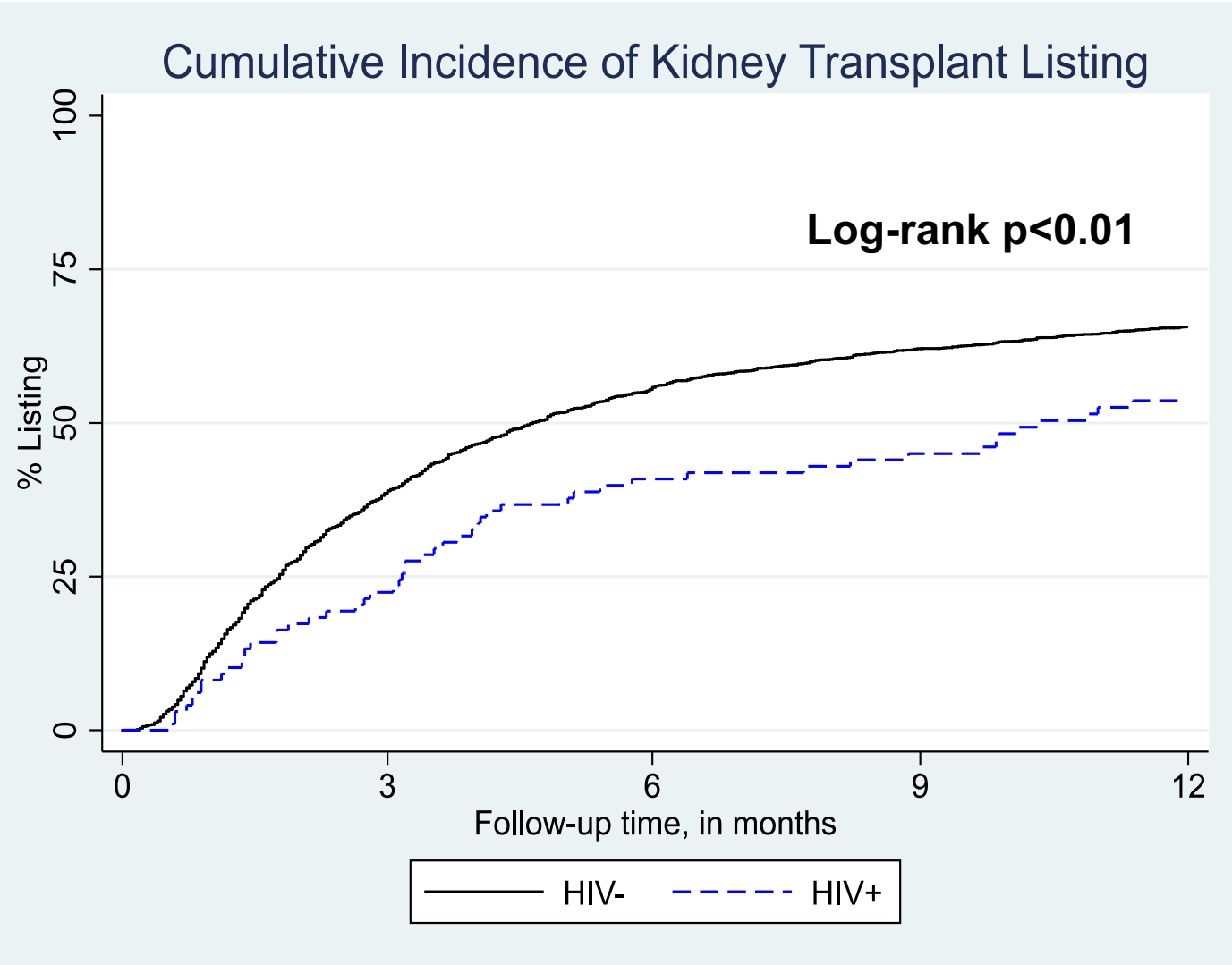


Figure 1: Cumulative incidence of kidney transplant listing within 1 year of evaluation for HIV+ vs. HIV- patients with ESRD.

- Patients with ESRD and HIV were more likely to be younger, African American, men, with cognitive impairment, and longer time on dialysis prior to KT evaluation than those without HIV (Table 1).
- Within 1 year of KT evaluation, 52 HIV+ and 2,010 HIV- patients were listed for KT.
- Median time from evaluation to listing was 133 days for HIV- patients and 315 days for HIV+ patients (Figure 1).
- Adjusting for age, sex, African American race, diabetes, and cognitive impairment, patients with HIV were less likely to be listed (aHR: 0.69, 95%CI: 0.52-0.93; p<0.05).
- However, additionally adjusting for time on dialysis attenuated this difference (aHR: 0.92, 95%CI: 0.69-1.20; p=0.5) (Table 2).

Unadjusted	HR	95% CI	p-value
HIV-		Reference	
HIV+	0.68	0.52-0.90	<0.01
Adjusted	aHR	95% CI	p-value
HIV-		Reference	
HIV+	0.69	0.52-0.93	<0.05
Further Adjusted for Dialysis Time	aHR	95% CI	p-value
HIV-		Reference	
HIV+	0.92	0.69-1.20	0.6

Table 2. Likelihood of listing by HIV-status. Adjusted models include: age, sex, race, diabetes, and cognitive impairment.

CONCLUSION

- HIV+ patients were 30% less likely to be listed for KT than HIV- patients.
- This difference was not explained by patient characteristics other than time on dialysis prior to evaluation.
- Targeted interventions for referral and transplant evaluation may improve access to KT for HIV+ patients.