

Comparing Death Risk of Polycystic Kidney Disease (PKD) Hemodialysis (HD) Patients to non-PKD HD Patients

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Background

- Mortality among polycystic kidney disease (PKD) patients with ESRD is thought to be lower than that of non-PKD ESRD patients
- However, the source of the survival advantage is not known
- We hypothesized that PKD patients have better nutritional status or lower disease burden, leading to their survival advantages compared to other ESRD patients

Methods

- To test the hypothesis that superior survival of PKD HD pts arises from lower disease burden, we examined 3-yr (7/2001-6/2004) survival of 61,022 hemodialysis (HD) patients in all DaVita® dialysis clinics & compared 1,596 PKD to non-PKD patients
- We used baseline & time-dependent Cox models, adjusted for case-mix & malnutrition-inflammation-cachexia syndrome (MICS)
- We also "matched" PKD to non-PKD by sex, age (+/-5 yrs), diabetes (DM), vintage & state
- The table shows 3-yr death hazard ratios [in bold] (and 95% confidence levels

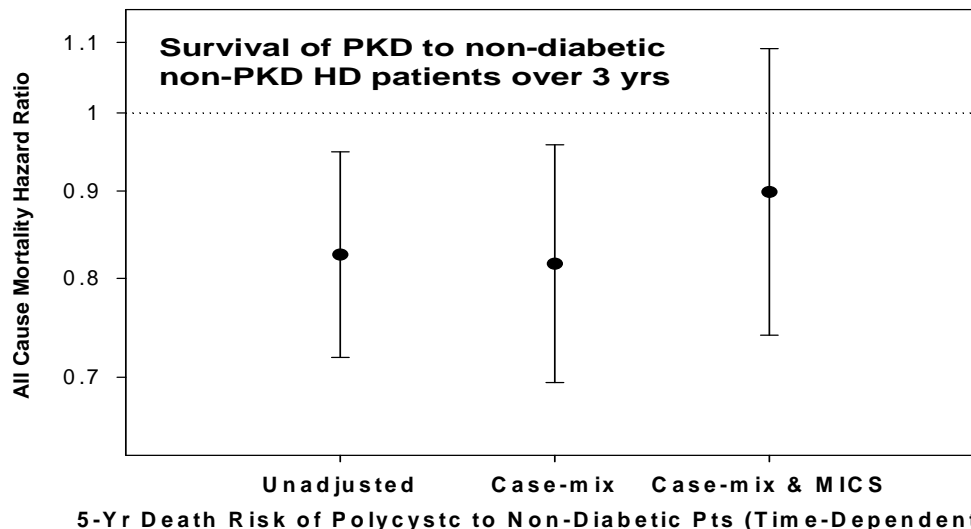
Results

Comparing to	Cox	Unadjusted	Case-mix	MICS
All pts	Baseline	0.62 (0.56-0.68)	0.77 (0.70-0.85)	0.80 (0.73-0.89)
All pts	Time dependent	0.61 (0.56-0.68)	0.74 (0.67-0.81)	0.86 (0.78-0.95)
All pts (matched)	Baseline	0.71 (0.62-0.71)	0.72 (0.62-0.84)	0.82 (0.68-0.98)
All pts (matched)	Time dependent	0.71 (0.62-0.71)	0.71 (0.61-0.83)	0.72 (0.59-0.87)
Non-DM pts (matched)	Baseline	0.83 (0.72-0.95)	0.83 (0.71-0.97)	0.91* (0.76-1.09)
Non-DM pts (matched)	Time dependent	0.82 (0.72-0.95)	0.82 (0.70-0.96)	0.90* (0.74-1.09)

- Case-mix models showed 23% to 29% lower mortality in PKD patients compared to other HD patients, and 17% to 18% compared to non-DM non-PKD pts
- Control for MICS mitigated the survival benefit, indicating that a main contributor to better survival of PKD pts is a more favorable nutritional or inflammatory status of these patients

Conclusions

- Hence, PKD HD patients have significantly greater survival compared to other ESRD patients
- Control for MICS mitigated the survival benefit, indicating that a main contributor to greater survival of PKD patients is a more favorable nutritional status of these patients
- These findings may indicate that better nutritional status may be a key element to greater survival in ESRD



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