

ON THE VIEW OF CLINICAL OUTCOMES, SHOULD WE OFFER PD FOR ELDERLY PATIENTS?



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OBJECTIVE

To describe the characteristic of elderly incident patients on PD.

Compare characteristics, results and clinical outcomes of elderly vs other PD patients

METHOD

Multicenter observational study of patients starting PD between Jan 2003 and Jan 2011. Follow-up period up to January 2012. Includes 19 public hospitals with PD and HD.

Prospective-historic study. Systematic sampling of every PD patient in each center. Prospective data collection in a multipurpose data base. Analysis retrospective over this DB. Survival analysis was performed using Kaplan-Meier (K-M) and proportional risk Cox models by backward-steps with different end-points: switching from PD to HD for technique failure, and death for mortality. Hazard ratio and 95% confidence intervals (HR [CI]) are shown. Two groups comparison: starting PD with an age over 70 years vs others.

COHORT DESCRIPTION

1.312 PD patients, 19 public hospitals 19.5% 70 ≥ year (usual geriatrics criteria)

Aged 54.1 (DE 15.9) years 64.9% male

Charlson Index 5.1 (SD 2.4) (includes age and 17 comorbidity items)

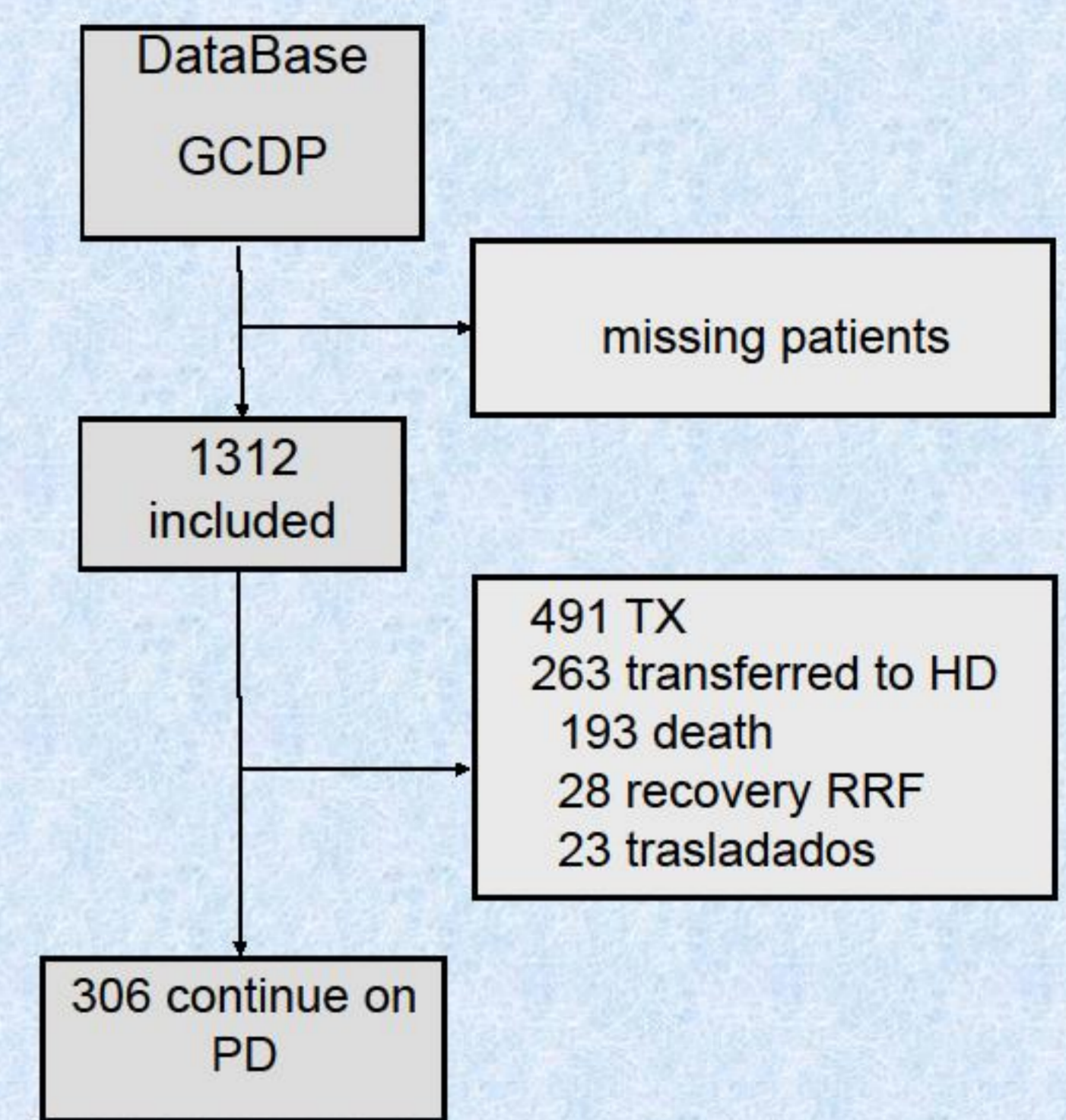
23.7% Diabetes Mellitus-DM, 26.1% Cardiovascular-CV events previous to PD

18.1% from HD, 8.1% from Tx failure

BACKGROUND

PD-patients are ten year younger than those on HD in Spain; however there is a subgroup of patients over 70 year that choose PD.

Our aim is to describe characteristic and clinical outcomes of elderly PD patients



Patients' Flowchart

ESRD etiology

- Glomerulonephritis (25.4%)
- Diabetes (16.7%)
- Vascular-Ischemic (10.7%)
- Interstitial (13.6 %)
- Polycystic (11.2%).

At the end of follow-up,

Both groups (EP vs Controls) spent similar time on PD but EP leave PD more frequently by death (31.6 vs 10.8; p<0.001) or PD-failure (30.4 vs 17.7; p<0.001) than by Tx (44.9 vs 7.5; p<0.001).

Mean Follow-up: 2,1 years

RESULTS: ELDERLY vs CONTROL

	Age <70	Age=70
Age (years, SD)*	48,98 (13,20)	75,43 (4,23)
I. Charlson (SD)*	3,16 (1,7)	3,78 (1,63)
% C V E*	21,20	46,10
% D M*	21,50	32,80
No previous Therapy	71,6	83,0
Previous HD	18,6	16,2
Previous TS	9,9	0,8
% C A P D*	34,1	22,6
% H g <11	21,7	16,5
Basal efficacy	75,6	79,5
Basal RRF (ml/min)	6,9 (4,3)	6,5 (4,1)

CVE previous cardiovascular event; CAPD manual dialysis; Efficacy: simultaneous fulfillment of KtV and CCr; * pvalue<0.05

CLINICAL OUTCOMES

Main Clinical Outcomes:

- Higher peritonitis rate: (0.77 vs 0.49 perit/year-pac; p<0.05)
- Higher Hospital admission (0.68 vs 0.60 per pat year; p<0.05)
- Higher mortality rate (0.158 vs 0.054 per patient-year).

Ref	Country	Control	Elderly	years
DeVecchi AF	Italy	0.37	0.52	>70
Holley JL	USA	0.89	0.95	>60
McDonald M	N Zeland	0.57	0.42	>58
Mooraki A	Iran	0.80	1.20	≥60
Nebel M	Germany	0.73	0.54	>60
Perez-Contreras J	Spain	0.55	0.72	>65
Suh H	USA	0.75	0.55	>65
MEAN		0.67 ± 0.18	0.70 ± 0.28	

Telletbaum I. Peritoneal dialysis is appropriate for elderly patients. Contrib Nephrol 2006;150:240-246

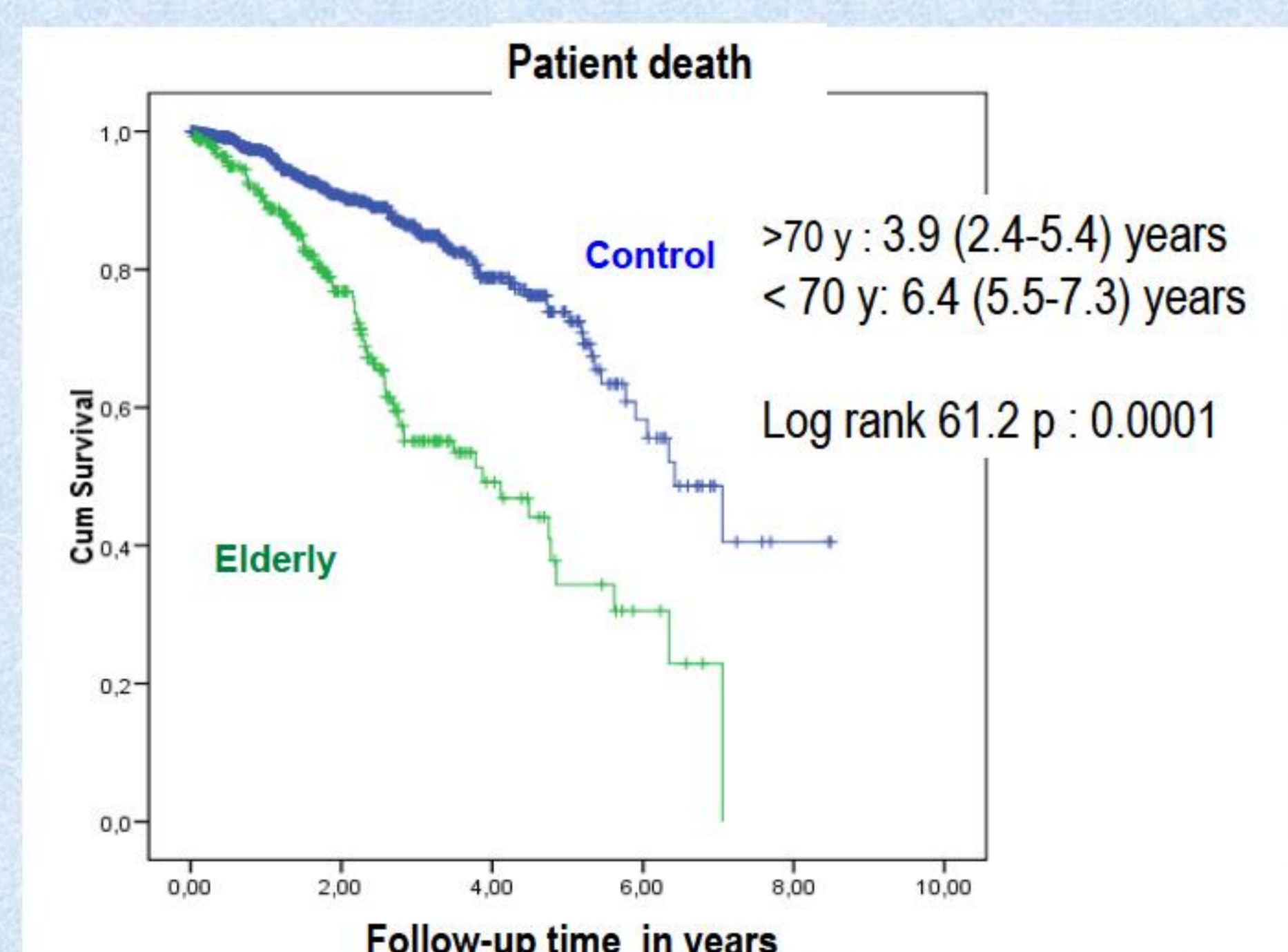
Kidney Transplantation

- Less Elderly on Waiting list (14.8% vs 68.1%)
- Main cause for PD-ending was Tx on controls (44.9% vs 7.5%; p<0.001)
- Those on waiting list similar time to Tx: Elderly: 21,5 vs Control: 22.5% 1st year Elderly: 42,7 vs Control: 48.6% 2nd year

PD Failure and change to HD

- Higher on elderly than controls (30.4 vs 17.7%; p<0.001).
- Frailty/burn-out (23.7 vs 14.5%)
- Technique failure (Wall, catheter, ultrafiltration failure (16.8 vs 32.9%) p<0.05.

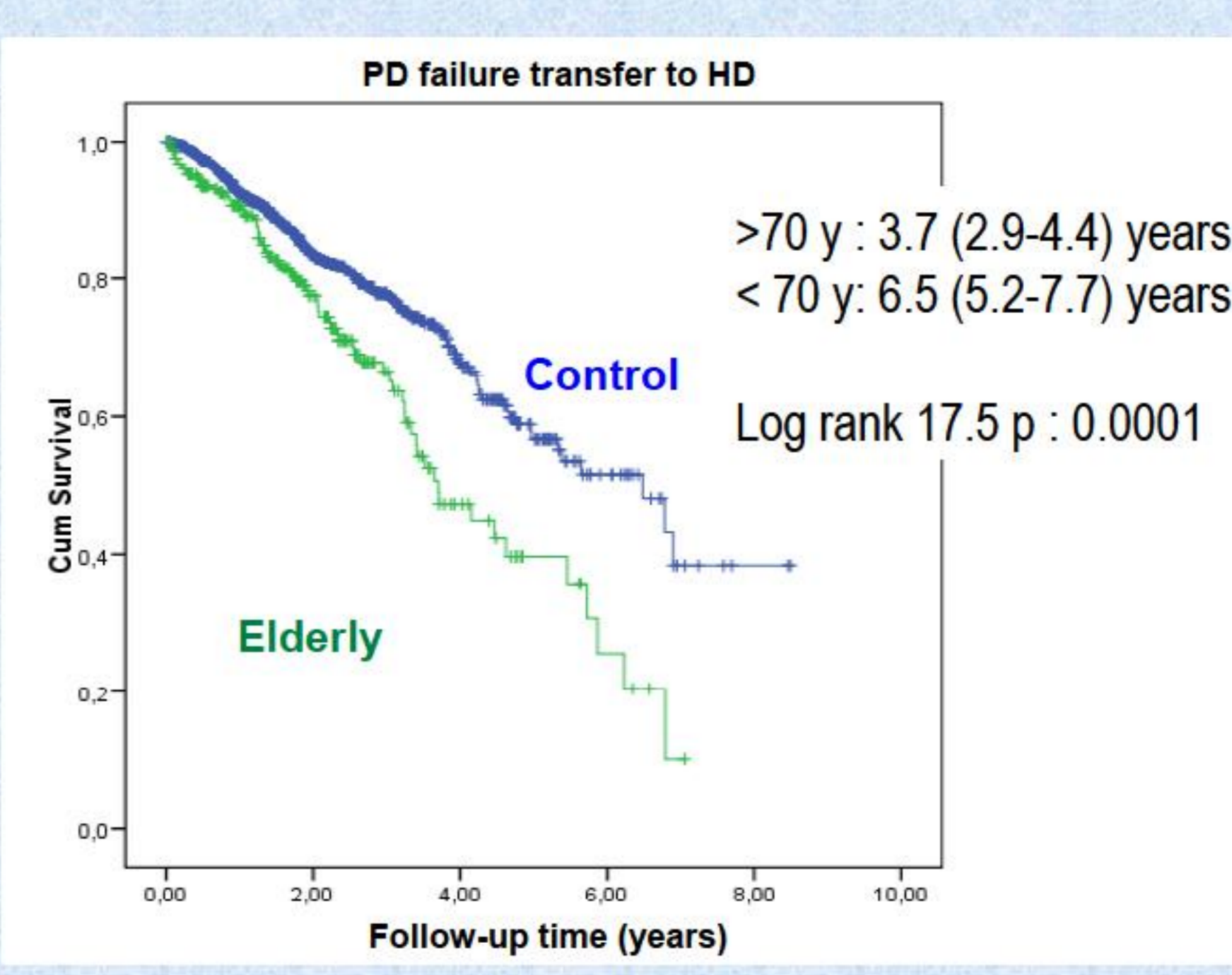
Patient survival



Death as end point

Kaplan-Meier. Mean follow-up period on PD to death 6.1 years 95% CI [5.4-6.7].

PD technique failure



End point: switching to HD

Kaplan-Meier. Median follow-up period on PD to death 5.5 years 95% CI [4.9-6.3].

Conclusion

In spite of a higher peritonitis and admission rate, the elderly patients spent similar time on PD. However, elderly patients end PD treatment more frequently by death or PD-failure than by Tx.

Elderly patients present a worse general outcome than controls. and they need more social support and a special attention for frailty- However they spent enough time on PD to consider offer this technique to those that ask for it.

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