

"PD FIRST" OUTCOMES: MORTALITY, TRANSPLANTATION AND TECHNIQUE SURVIVAL

Teresa Jerónimo, Anabela M. Guedes, Ana P. Silva, Isabel Pinto, Céu Laranjo, André Fragoso, Filipa Mendes, Idalécio Bernardo, Pedro L. Neves.
Centro Hospitalar do Algarve, Nephrology, Faro, PORTUGAL.

INTRODUCTION AND AIMS

Peritoneal dialysis (PD) as a renal replacement therapy has become wide spread since its inception more than twenty-five years back. Since then, several advances have been made and PD has been accepted as an alternative therapy to hemodialysis (HD), with excellent survival, lower cost, and improved quality of life. In spite of comparable survival of HD and PD, improved PD techniques over the last few years, and lower health care costs with PD, PD prevalence remains low in many countries. An important reason for the low PD prevalence is patient dropouts, namely transfer to HD. The reasons for dropouts are multifactorial and include episodes of peritonitis, catheter-related problems, ultrafiltration failure, patient fatigue and provider comfort.

The aim of this study was to compare the PD outcomes (mortality, technique survival and transplantation), taking account the first depurative technique, PD or HD, according to patient's choice.

METHODS

The study population was divided into 2 major groups (G), based on the first depurative technique: G1 - PD and G2 - HD. Clinical and laboratory data were collected from all patients. Patient outcome and causes of drop-out were evaluated regarding mortality, technic failure and transplantation. Descriptive statistic, Student's t test, Chi-square and Cox regression model were used.

RESULTS

Population

N= 125
Male 54.4% **Mean age**
Female 46.6% 55.0±17.4 years

Diabetes	33.6%
LVH	63.9%
PVD	37.1%
CerebroVD	18.6%
CardioVD	34%
Valvular calcification	31.8%
PP > 75mmHg	27.1%
VCS	2±2
PD vintage	31.3±31.3 months
APD	80%

Laboratory analysis

Kt/V	2.8±1.8
RRF (mL/min)	6.86±2.69
Phosphorus (mg/dL)	4.9±1.7
Calcium (mg/dL)	9.1±1.1
Parathormone (pg/mL)	605.7±598.5
Albumin (g/dL)	3.5±0.6

Transplanted	16%
Tranferred to HD	36.8%
Obits	22%

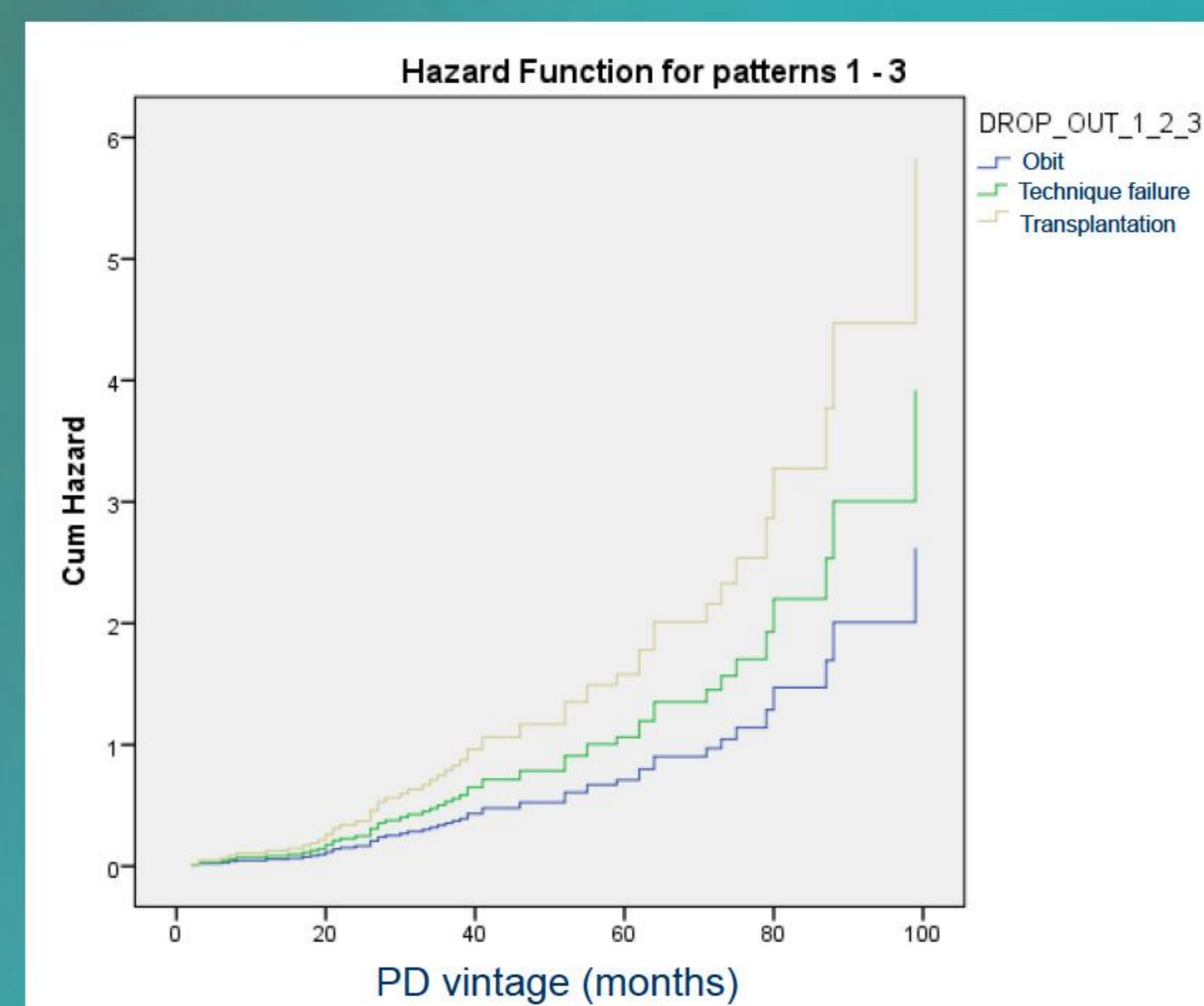
Comparison between groups

	G1	G2	
PD vintage (months)	34.5±26.3	22.9±21.9	p = 0.018
RRF (mL/min)	6.86±5.72	2.69±3.32	p= 0.001
Albumin (g/dL)	3.7	3.2	p= 0.001
PVD	29%	53%	p=0.022

There were no differences between the two groups regarding age, gender, diabetes, HVE, cardio or cerebrovascular disease, valvular or vascular calcification score, PP, Kt/v, osteomineral metabolism parameters and obits.

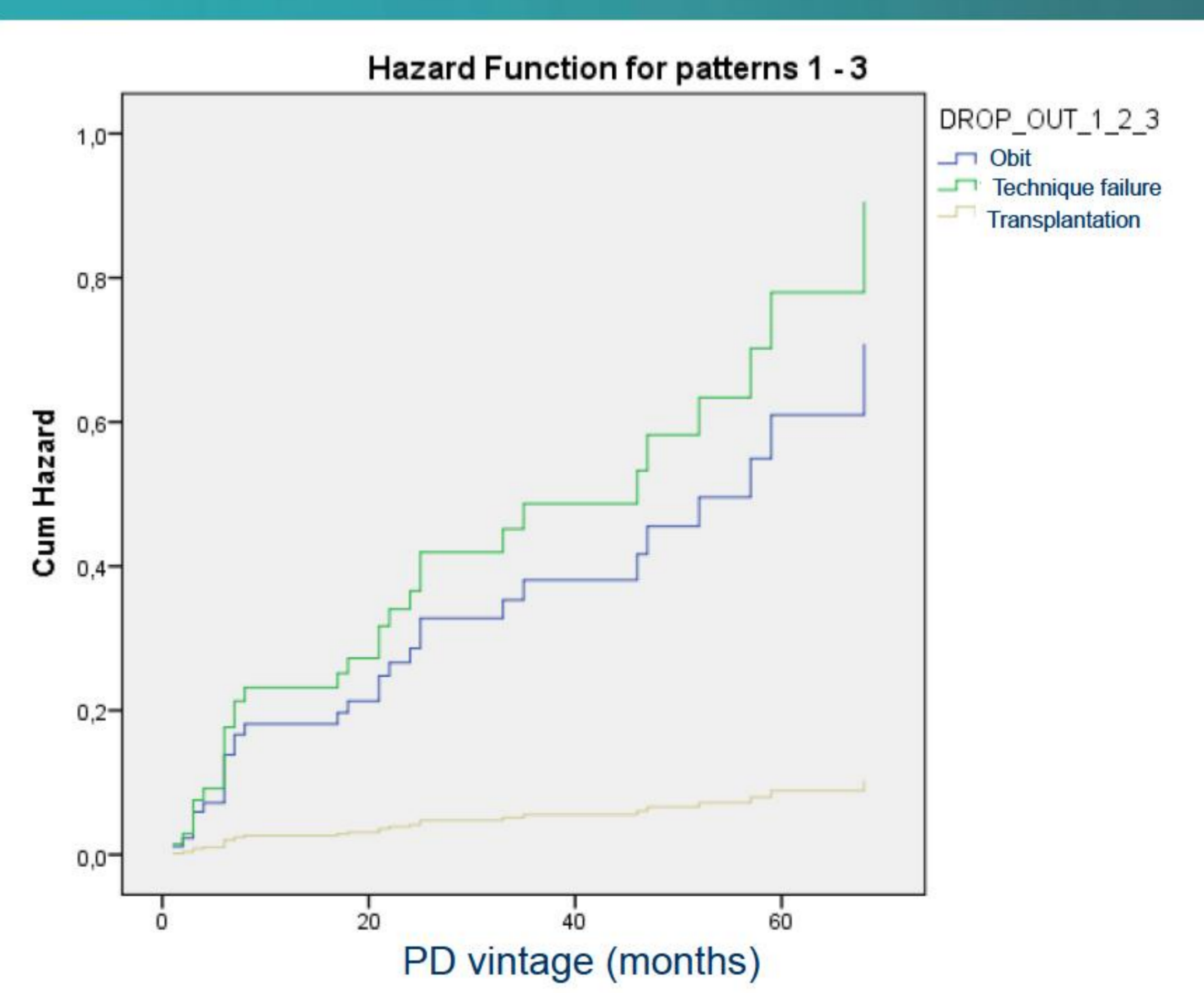
Causes of drop-out

G1



(HR: 2.23 (1.05-4.70 CI 95%) p = 0.036)

G2



(HR: 1.81 (1.18-65.83 CI 95%) p = 0.034)

PD – Peritoneal Dialysis; LVH – Left Ventricular Hypertrophy; PVD - peripheral vascular disease; CerebroVD – cerebrovascular disease; CardioVD - cardiovascular disease; RRF- residual renal function; PP - pulse pressure; VCS - vascular calcification score; APD – automated peritoneal dialysis; HD – hemodialysis.

CONCLUSIONS

In our population, "PD first" patients had higher PD vintage, higher residual renal function, higher albumin level and less cases of peripheral vascular disease when compared with patients starting dialysis with HD. Transplantation was the main cause of drop-out in "PD first" patients whereas technique failure was the principal motive in the group of patients that were previously in HD.