

Prognostic value of blood pressure for incident haemodialysis patients

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Introduction

Although there have been no randomized prospective trials evaluating the target blood pressure in dialysis patients and probably the best way to monitor the blood pressure in these patients would be at home, low and high blood pressure has been found to be detrimental in this group of patients.

Objectives

The aim is to demonstrate demonstrated that pre-dialysis systolic blood pressure is a good predictor of mortality in hemodialysis patients.

Methods

We included 2498 incident haemodialysis patients (lower than three months on dialysis) excluding amputated or unipolar peacemaker carrier patients. We registered parameters of BCM, demographics, analytical, BP and treatment. We divided patients into three groups according their SBP and we calculate de Kaplan-Meier analysis in order to identity the group with higher mortality risk. After that we realized and Cox survival analysis with the three groups of Blood pressure and other risk factors.

Results

We realized survival function including Kaplan Meier analysis (Figure 1), and Multivariate Cox proportional hazards models (Table 1) with possible predictors of death.

Tertiles of pre-dialysis blood pressure during the first month on hemodialysis:

Group 1: 117.03 +/- 0.36 (129-66.86) mmHg

Group 2: 138.04 +/- 0.18 (147.25-129.19) mmHg

Group 3: 161.63 +/- 0.42 (214-147.29) mmHg

Conclusion

The group of patients with lower predialysis systolic blood pressure has higher death risk after adjusting other comorbidities such us age or fluid overload.

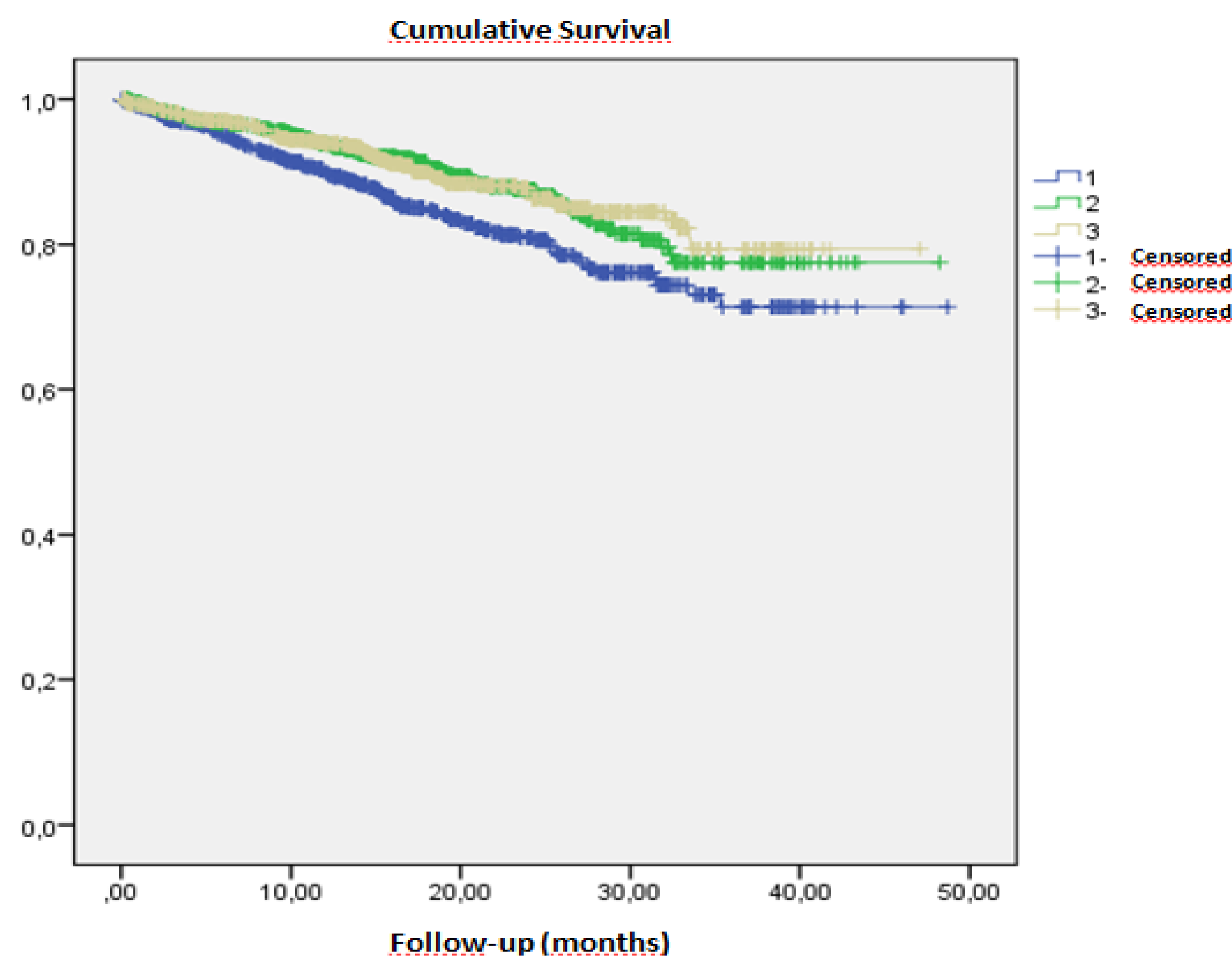


Figure 1. Survival Functions (Kaplan-Meier Survival) 2498 HD patients (LogRank=0.001). Group 1 (N=834), group 2 (N=831) and group 3 (N=833).

	Multivariate	CI
Group 1 (reference)		
Group 2	0.699	0.531-0.919
Group 3	0.703	0.531-0.930
Age	1.048	1.037-1.060
Gender (male)	1.106	0.868-1.409
ROH>15%	1.480	1.175-1.864
Vascular Access (catheter)	2.015	1.5771-2.585

Table 1. Multivariate Cox survival analysis. ROH: relative overhydration by Body Composition Monitor.