

FAT TISSUE INDEX AND BODY MASS INDEX ARE STRONG MORTALITY PREDICTORS IN HEMODIALYSIS PATIENTS

C. Garagarza¹, A. Valente¹, C. Caetano¹, T. Oliveira¹
¹ Fresenius Medical Care – Nephrocare, Portugal
 Cristina Garagarza: cgaragarza@hotmail.com; +351 91 005 20 86

1. Introduction and Aim

As a result of multiple comorbid conditions, metabolic acidosis and chronic inflammation, hemodialysis (HD) patients experience several changes in body composition and in whole body energy expenditure. Some studies have shown that both fat tissue and lean tissue are strong predictors of outcomes in HD patients and may influence survival time. The aim of this study was to evaluate how body composition can affect survival in HD patients.

2. Methods

- This was a prospective longitudinal multicenter study with 12 months of follow-up.
- Data were obtained on 698 patients concerning clinical, anthropometric parameters and body composition (Body Mass Index, Lean Tissue Index, Fat Tissue Index, body cell mass index and hydration status) was assessed by a body composition monitor (BCM®).
- All statistical tests were performed using SPSS 20.0 software. A P value less than 0.05 was considered statistically significant.

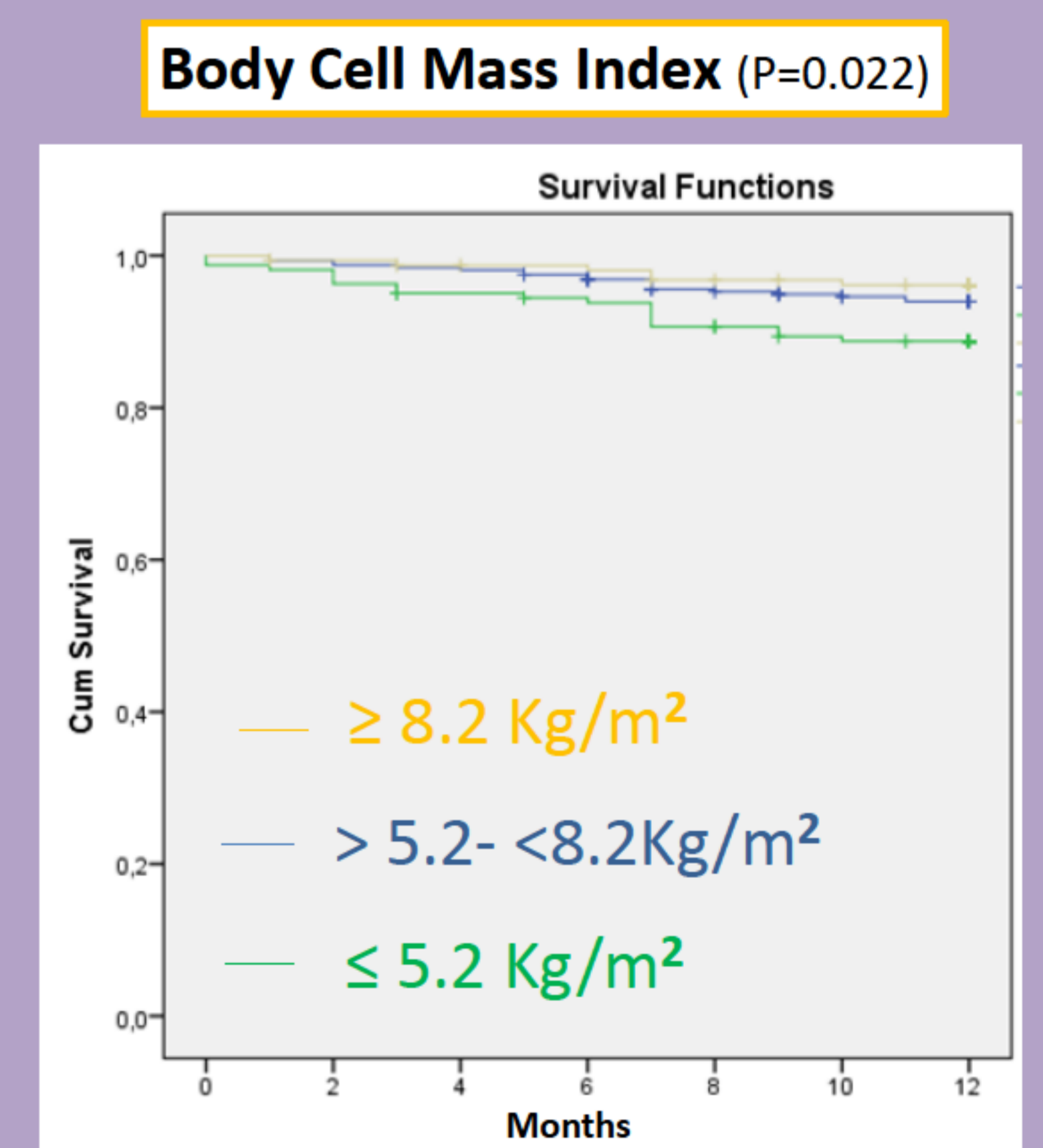
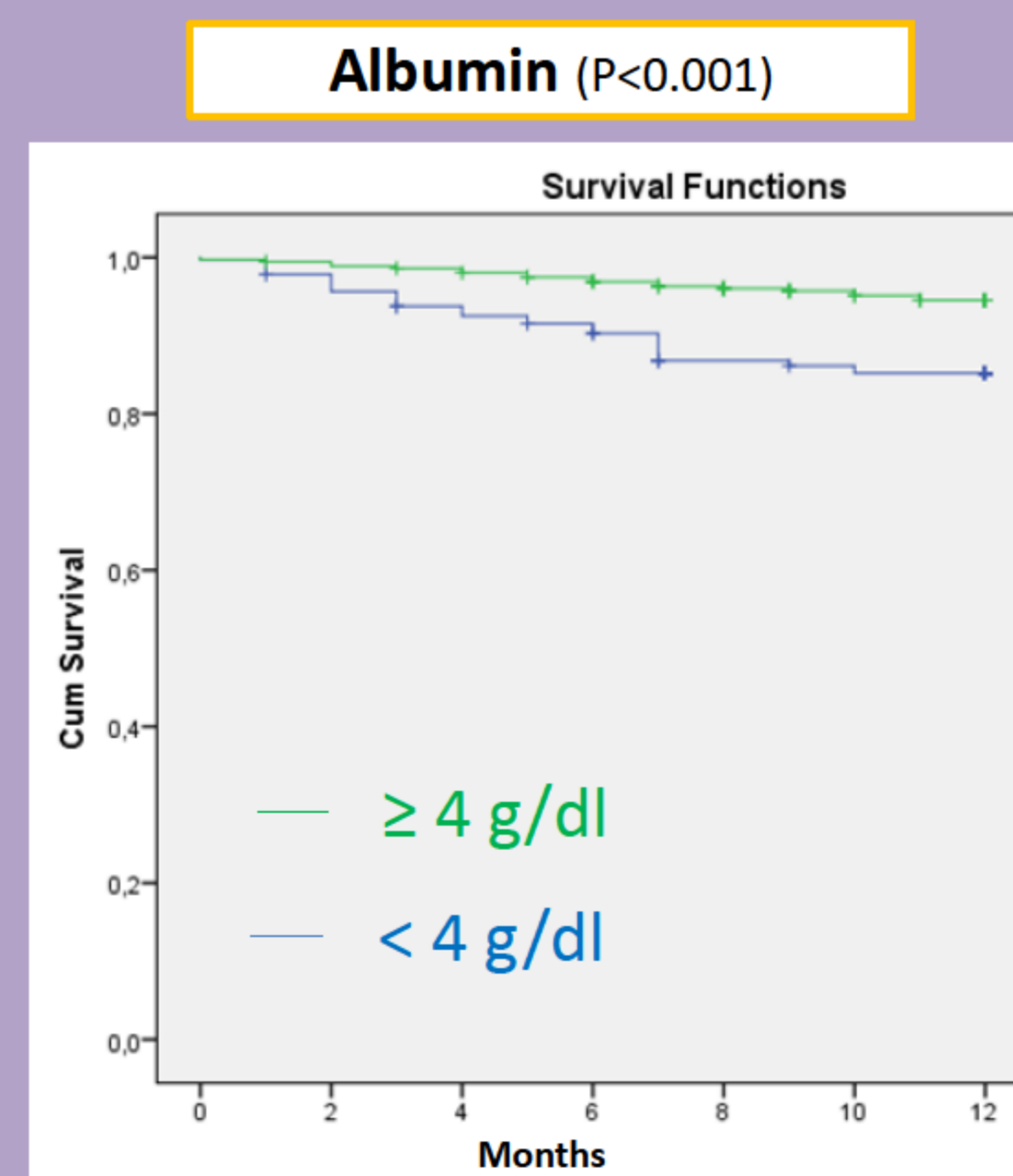
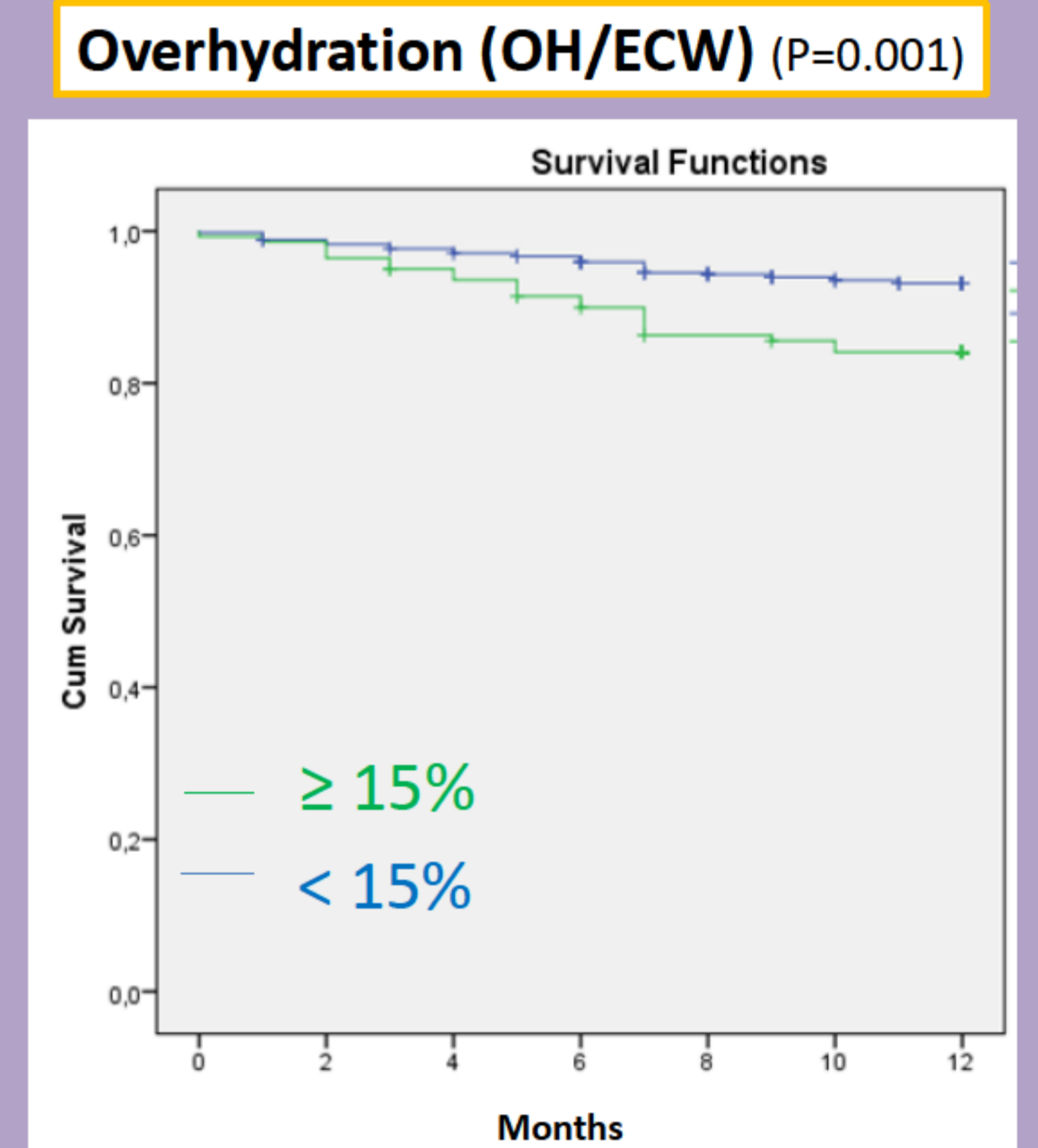
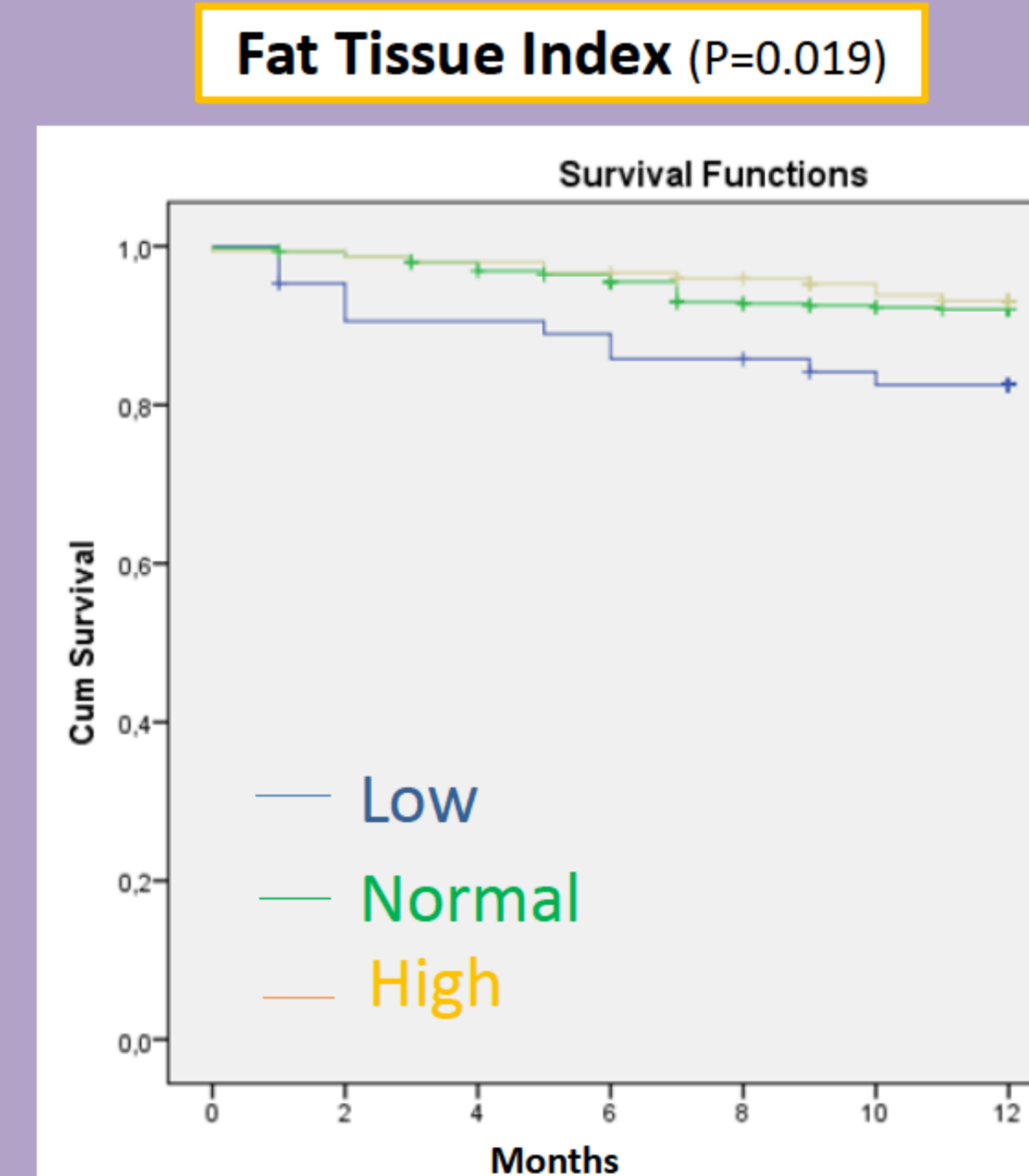
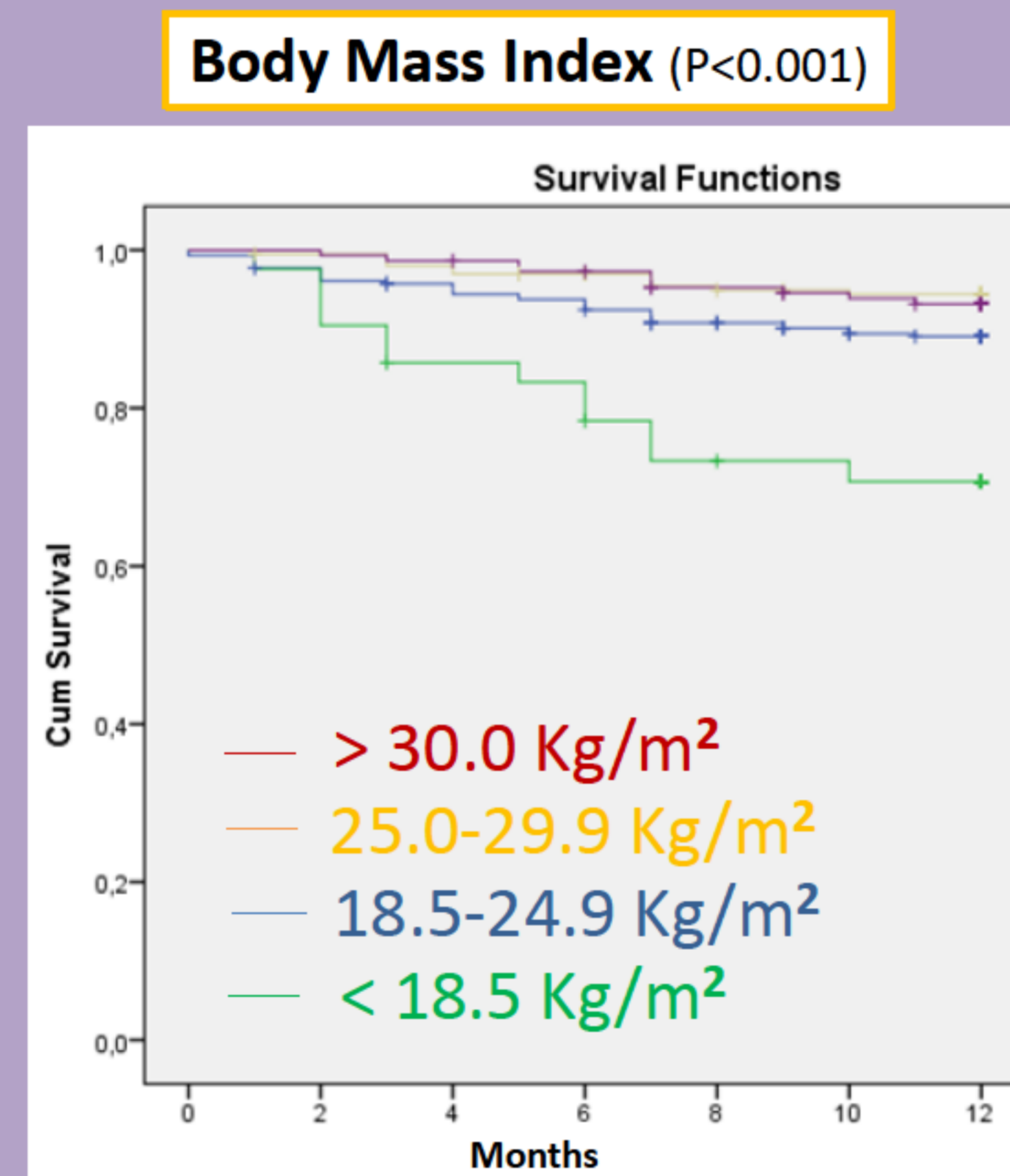
3. Results

Baseline patients' characteristics	
N	698
Age (years) ¹	65.4±14.1
Female (%)	43.5
Diabetics (%)	35.6
HD vintage (months) ¹	58.3±55.9

¹Values are presented as mean±SD.

Cox Regression Analysis	HR	CI (95%)	p
Fat Tissue Index	2.789	1.183-6.56	0.019
Overhydration (OH/ECW)	2.428	1.424-4.139	0.001
BMI <18.5 Kg/m ²	2.988	1.543-5.788	0.001
BMI 25.0-29.9 Kg/m ²	0.496	0.251-0.982	0.044
BCMI ≤5.2 Kg/m ²	1.929	1.012-3.675	0.046
Albumin <4 g/dl	2.871	1.685-4.892	<0.001

BMI – Body Mass Index; BCMI – Body Cell Mass Index



4. Conclusion

Albumin, FTI, overhydration and BMI were useful predictors of mortality in HD patients.

