

CONVECTIVE THERAPIES VERSUS LOW-FLUX HEMODIALYSIS FOR ELDERLY PATIENTS- FOUR YEAR FOLLOW- UP



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INTRODUCTION AND AIMS: The number of patients with end-stage renal disease (ESRD) aged 65 and older is growing, and this growth is expected to continue. Advanced age is associated with shorter survival on dialysis. There is currently no general consensus as to the best hemodialysis (HD) modality for elderly patients with ESRD. Recently, a few prospective randomized clinical trials (with all age population) found no advantage in survival with hemodiafiltration (HDF) as compared with high-flux hemodialysis (HF HD) and low-flux hemodialysis (LF HD). Still, similar data for elderly dialysis population are missing. The aim of this study was to compare the parameters of HD adequacy and four-year survival of patients older than 65 years depending on hemodialysis modality.

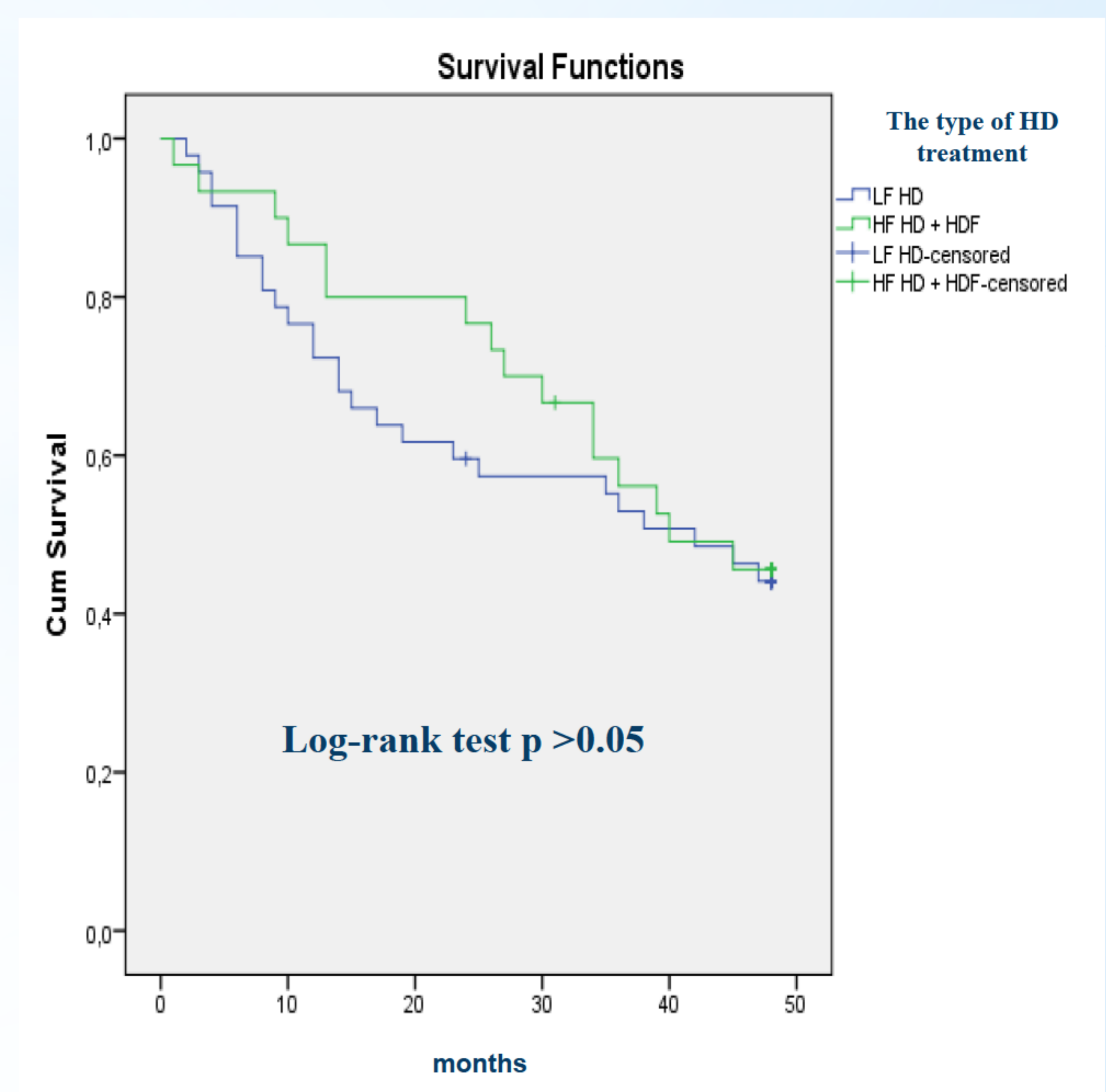
METHODS: A total of 77 HD patients aged 65 years and over were divided into 2 groups according to the type of HD treatment: group A – patients treated with LF HD (47 patients) and group B – patients treated with HF HD including HDF (23+7 patients). Patients had the same duration of HD sessions. The analysis included average one-year biochemical parameters at the start of the study and four-year patients' survival.

RESULTS: Patients from group B had longer dialysis vintage, higher iPTH levels and less frequent ESA use. There were no differences between the groups in parameters of anemia, mineral metabolism and nutrition (Table 1).

Table 1. Patient's characteristics and biochemical parameters (mean ± SD)

	group A LF-HD n=47	group B HF-HD and HDF n=30	P
Male g. (%)	42.6%	33.3%	>0.05
Age (y.)	72±5	71±7	>0.05
DM (yes %)	19.1%	13.3	>0.05
Time on HD (m.)	44±36	98±60	<0.05
HgB(g/dL)	10.2±0.7	10.3±0.7	>0.05
ESA use (%)	97.9%	80.0%	<0.05
ESA weekly (I.U.)	4836±2662	7000±6904	=0.06
ERI(U/kg/week)	7.6±4.3	11.0±12.4	=0.09
BMI(kg/m ²)	24.1±4.9	24.3±3.6	>0.05
s.albumin(g/L)	37.1±2.4	37.6±2.6	>0.05
CRP(mg/L)	10.5±12.1	10.6±10.8	>0.05
iPTH(pg/ml)	279±297	513±532	<0.05
Ca(mmol/L)	2.28±0.19	2.27±0.17	>0.05
P(mmol/L)	1.40±0.30	1.46±0.34	>0.05
P binders use (%)	83.0%	83.3%	>0.05
Vit. D use (%)]	46.8%	56.7%	>0.05
Kt/V value	1.32±0.22	1.29±0.24	>0.05

Figure 1. Kaplan-Meier survival curves



•According to Kaplan-Meier survival analysis, survival between two groups was similar (Figure 1). Cox proportional hazard model (adjusted for dialysis vintage) showed that patients from group B had a 19 % RR for mortality compared to patients from group A (HR 0.811; CI 0.995 to 1.007; p >0.05) during the follow-up period of 4 years, but statistical significance was not reached.

CONCLUSION: In elderly population, the use of LF- and HF (including HDF) hemodialysis have similar impact on the most parameters of dialysis adequacy and on 4-year survival.