

EXCESSIVE MORBIDITY AND MORTALITY OF HIP FRACTURES IN CHRONIC HEMODIALYSIS: A SINGLE CENTER EXPERIENCE

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Introduction and Aim

Abnormal bone architecture contributes to high incidence of hip fractures in chronic hemodialysis (HD) patients. Their clinical epidemiology is incompletely described. We conducted a retrospective cohort study to assess the implications of hospitalization with hip fracture in HD patients compared to the non-CKD population.

Methods

Thirty three chronic HD patients admitted with hip fracture over 5 years were age- and sex-matched on a 1:1 ratio with controls that had hip fracture and normal renal function. Demographic characteristics, deaths and readmissions at 6 months, hospitalization length, time to operation and laboratory results were recorded from electronic health files. Data were compared between the two groups using paired t-test for continuous variables and McNemar's test for categorical variables.

	Hemodialysis (N=33)	Controls (N=33)
Age (years)	76,4±9,4	77,8±9,4
Gender: Females (%)	24,2	24,2
Males (%)	75,8	75,8
Creatinine (mg/dl)	ESRD	1,0±0,3
Hip fracture type: Intracapsular (%)	45,5	33,3
Extracapsular (%)	54,5	66,7

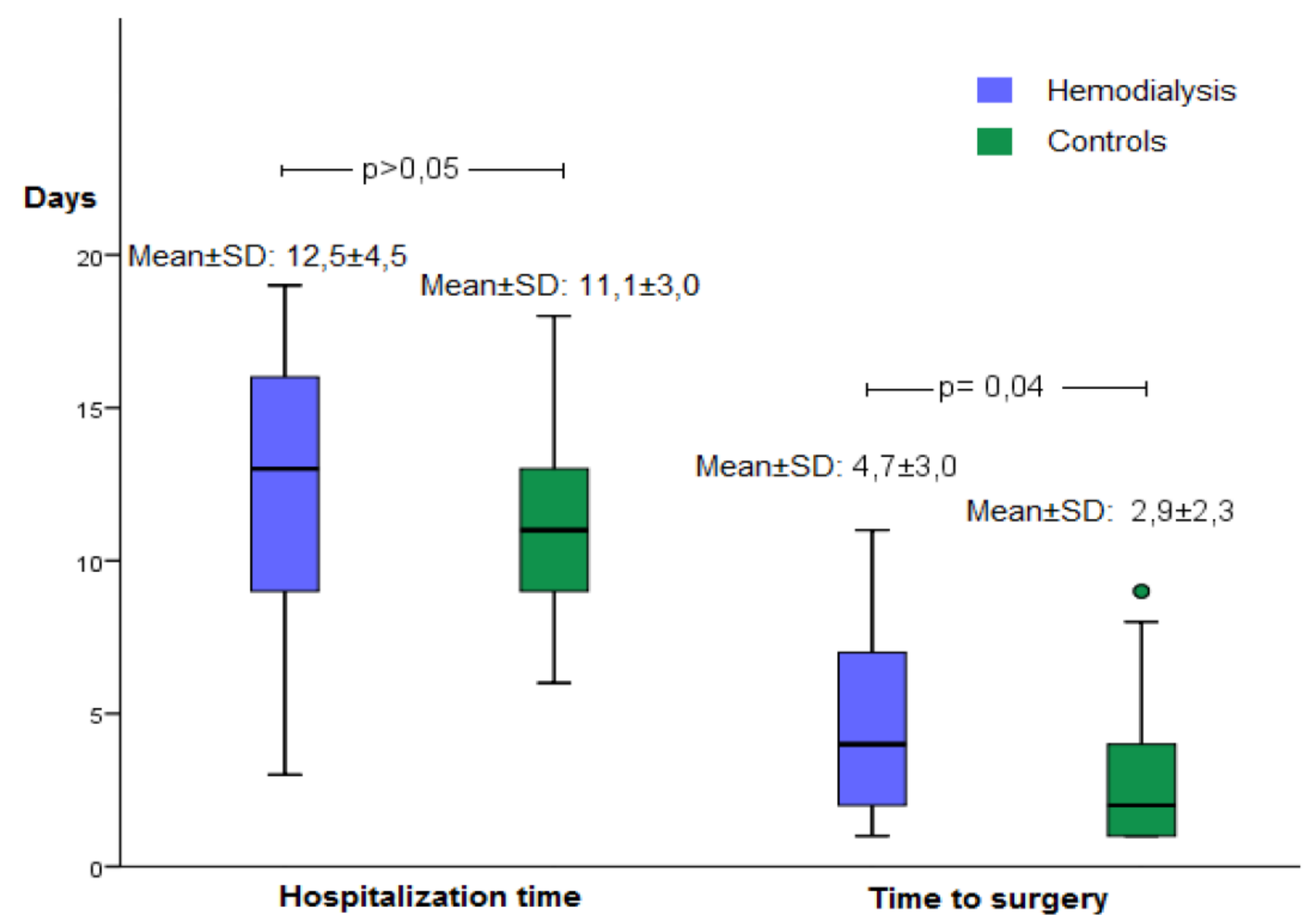
1. Baseline data (p>0,05 for all comparisons).

	Hemodialysis	Controls	p-value
Hemoglobin ≤ 10 mg/dl (at admission)	32,1%	12,5%	0,003
Serum sodium ≤ 138 mEq/l (at admission)	36,7%	21,9%	0,03
Surgery type: Fixation	57,7%	64,5%	>0,05
Arthroplasty	42,3%	35,5%	
Inoperable	21,2%	6,1%	<0,001

2. Results.

Results

The composite end-point of death and/or readmission at 6 months was higher in HD patients (12,1% versus 6,1%, p<0,001). Furthermore, mean time to operation was more delayed due to comorbidities (4,7±3,0 versus 2,9±2,3 days, p=0,04). HD patients had more frequently anemia at presentation (hemoglobin below 10 mg/dl, 32,1% versus 12,5%, p=0,003). Finally, they were more likely to be considered too frail for surgery and were not operated (21,2% versus 6,1%, p<0,001).



3. Length of hospitalization and time to operation results.

Conclusion

Hip fractures are associated with increased morbidity and mortality and represent an important healthcare burden for chronic HD patients. Future research is needed to identify definite predictors of adverse outcomes and to implement prevention strategies.

References

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Poster SP673. Category: L6) Dialysis. Bone disease.

