

MORTALITY RISK FACTORS AMONG INCIDENT OCTOGENARIAN DIALYSIS PATIENTS

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BACKGROUND

Dialysis population is getting older and more and more patients nowadays start dialysis at extreme ages.

We tried to evaluate predictors of survival in a population of incident hemodialysis (HD) patients older than 80 years.

METHODS

We retrospectively enrolled 63 CKD patients who started HD at 80 years of age or older and dialyzed for more than 1 month. We divided our population into 2 groups: A) patients who survived 2 or more years on HD (n=31) and B) patients who died within 2 years (n=32). We analyzed patient-related parameters, such as laboratory tests and the Cumulative Illness Rating Scale (CIRS), and treatment-related features.

RESULTS

	Survival > 2 years	Survival <2 years	p
Age at initiation of dialysis (years)	84.02±2.38	84.52±2.43	NS
Dialytic age (months)	48.00±19.26	7.53±5.68	<0.001
Gender (male)	67.74	65.62	NS
Serum calcium (mg/dl)	8.91±0.29	8.99±0.90	NS
Serum phosphates (mg/dl)	4.29±0.77	4.22±0.87	NS
iPTH (pg/ml)	193.0±118.9	182.8±125.4	NS
Protidemia (g/dl)	6.48±0.52	6.13±0.64	<0.05
Serum albumin (g/dl)	3.61±0.30	3.22±0.54	<0.01

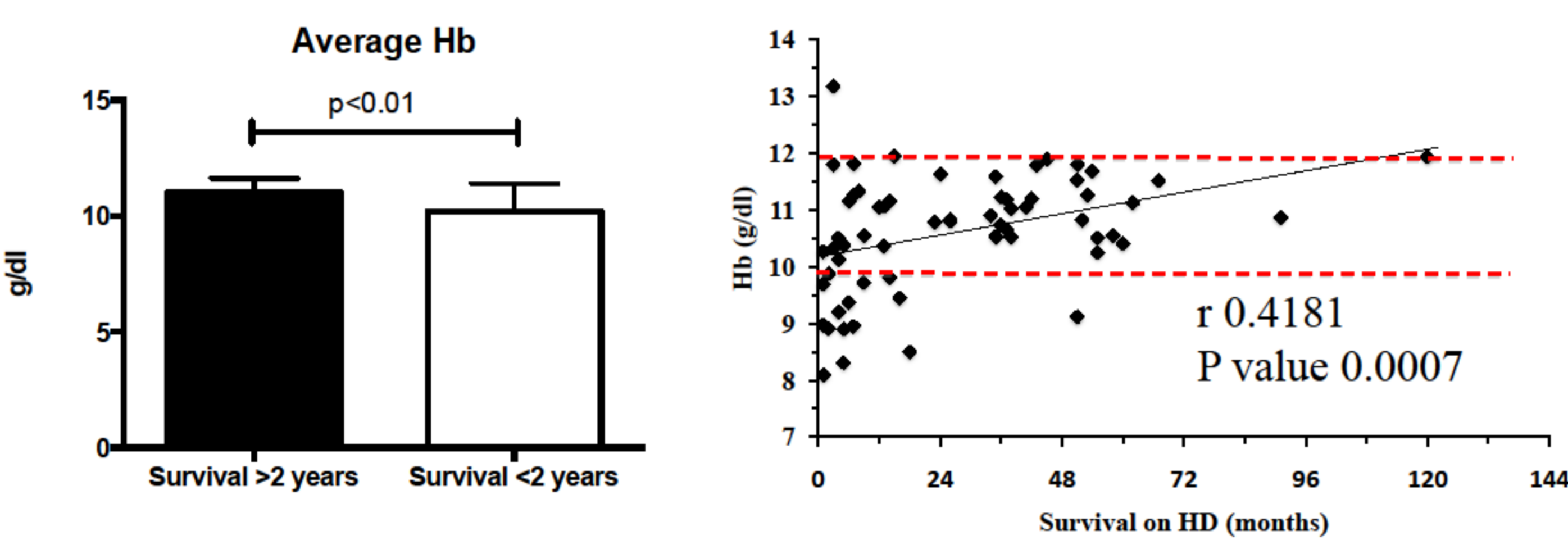


Figure 1. Average hemoglobin was higher in group A than group B (11.01 ± 0.60 vs 10.21 ± 1.18 g/dl, $p < 0.01$) and directly correlated with survival ($p < 0.001$).

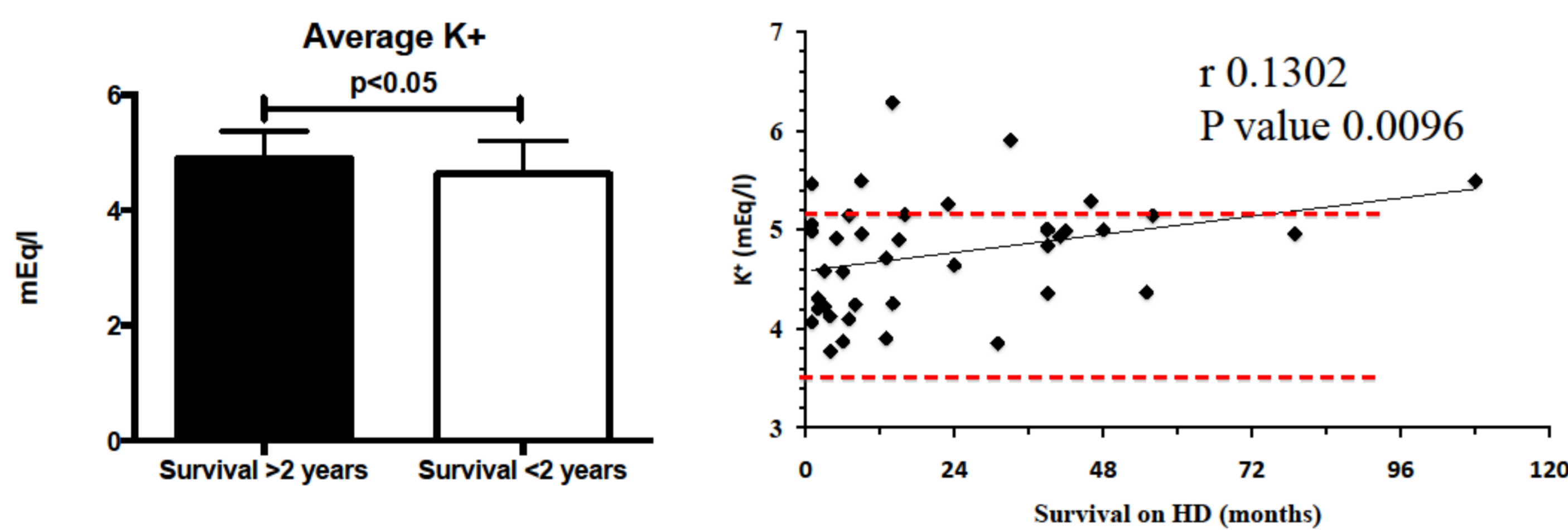


Figure 2. Average serum K^+ level was higher in group A than group B (4.90 ± 0.46 vs 4.63 ± 0.57 mg/dl, $p < 0.05$) and K^+ directly correlated with survival ($p < 0.01$ for values between 3.8 and 6.3 mEq/l).

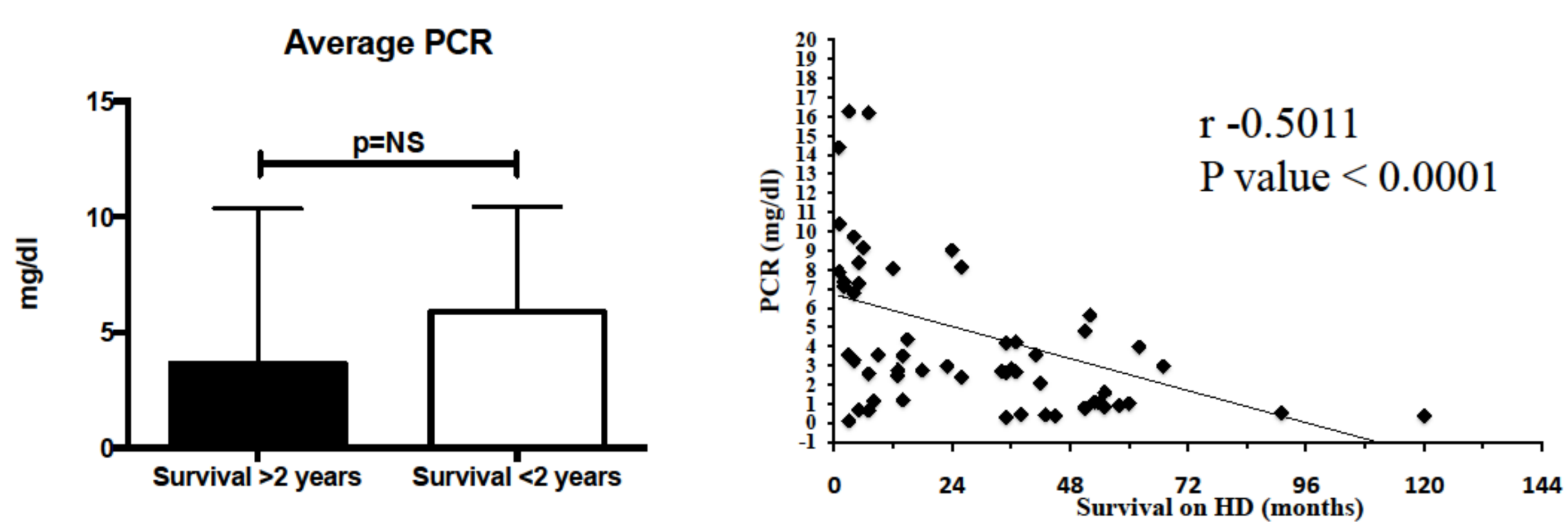


Figure 3. Average CRP was not different between groups (3.65 ± 6.72 vs 5.87 ± 4.57 mg/dl, $p = NS$). However, CRP inversely correlated with survival ($p < 0.0001$).

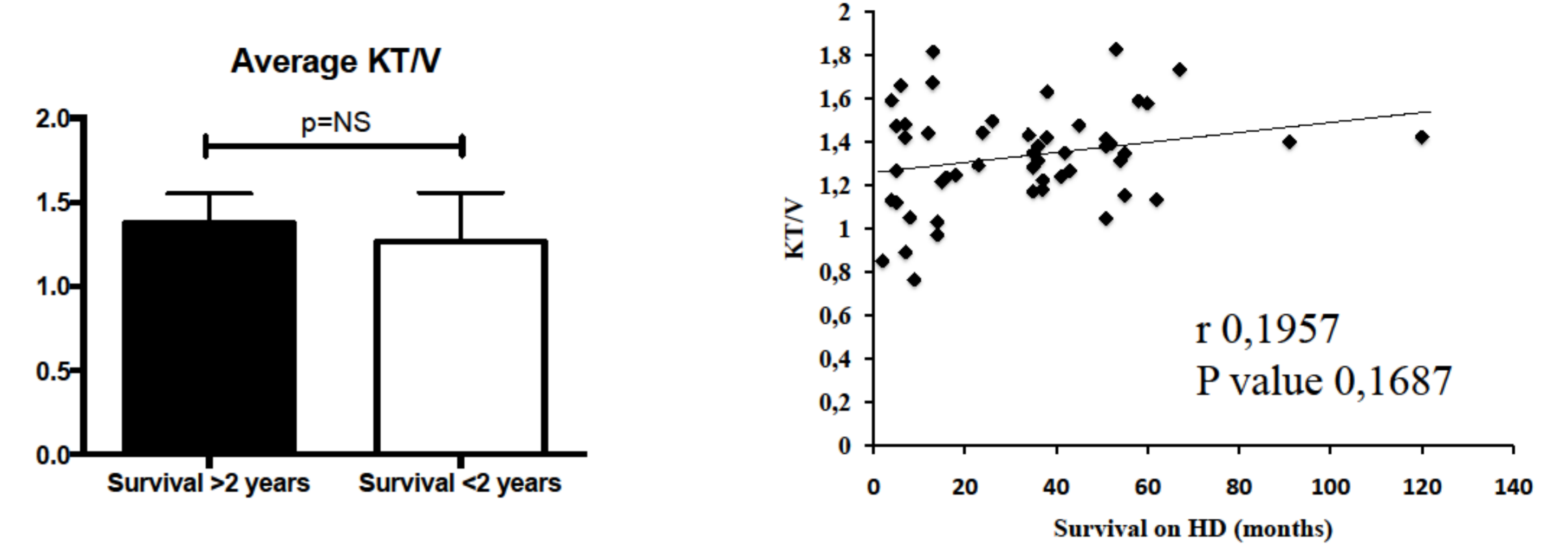


Figure 4. Dialysis adequacy was not different between the groups [KT/V 1.38 ± 0.17 (A) vs 1.27 ± 0.29 (B)] and did not correlate with survival.

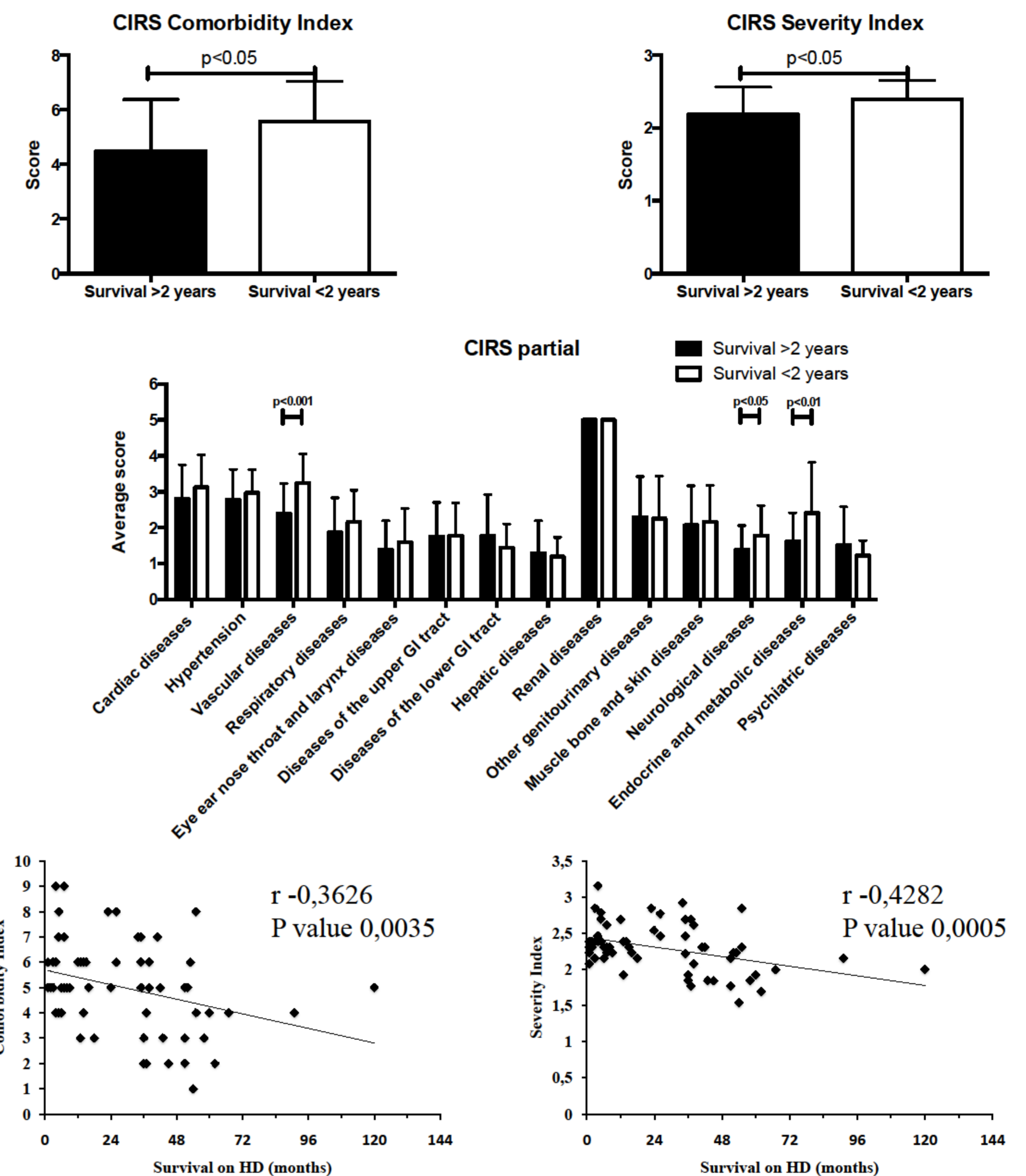
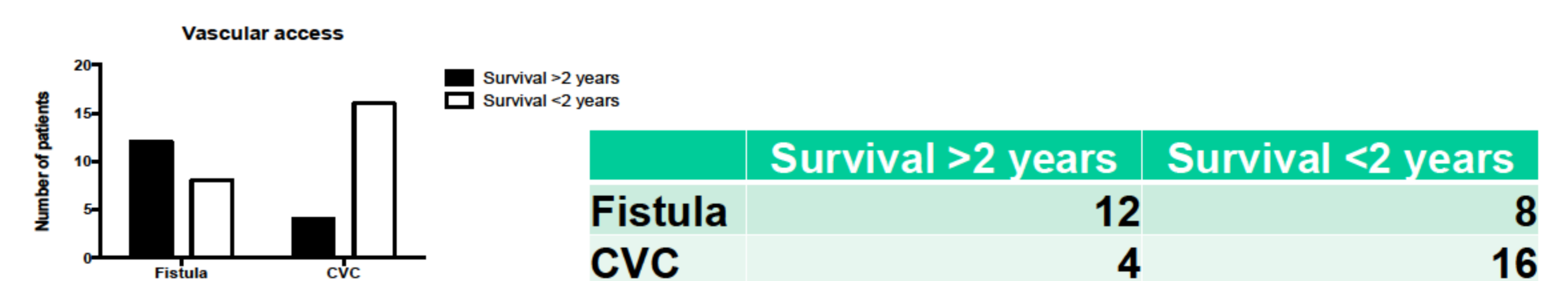


Figure 5. CIRS index, at initiation of HD, was greater in group B than A both for comorbidity (5.56 ± 1.16 vs 4.48 ± 1.48 , $p < 0.05$) and severity score (2.39 ± 0.26 vs 2.19 ± 0.37 , $p < 0.05$) and directly correlated with mortality ($p < 0.01$).



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3.00

Figure 6. The type of vascular access at initiation of HD influenced mortality as a central venous catheter (CVC) was associated with a 3 fold higher relative risk of death within 2 years compared with a fistula ($p < 0.05$).

CONCLUSIONS

Our study shows that a better nutritional status as well as higher levels of hemoglobin are associated with a longer survival among octogenarian patients entering dialysis. Avoiding late referral and placing an artero-venous fistula in advance before the initiation of the RRT, if feasible, seems to confer a survival benefit of 3 fold over a CVC. Comorbidities and high inflammatory indexes, instead, are unfavorable prognostic markers and might contraindicate the initiation of dialysis in this population.

