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Renal outcome of diabetic vs. nondiabetic patients with acute kidney injury

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Introduction

Diabetes *mellitus* (DM) is a major risk factor for kidney disease. The incidence of diabetic-related end-stage renal disease (ESRD) requiring dialysis or kidney transplantation is rising worldwide. Acute kidney injury (AKI) on diabetic patients may accelerate this progression causing more morbidity and decreased quality of life. In this study, we aimed to compare the renal outcomes of diabetic vs. non-diabetic patients with AKI after discharge.

Population and Methods

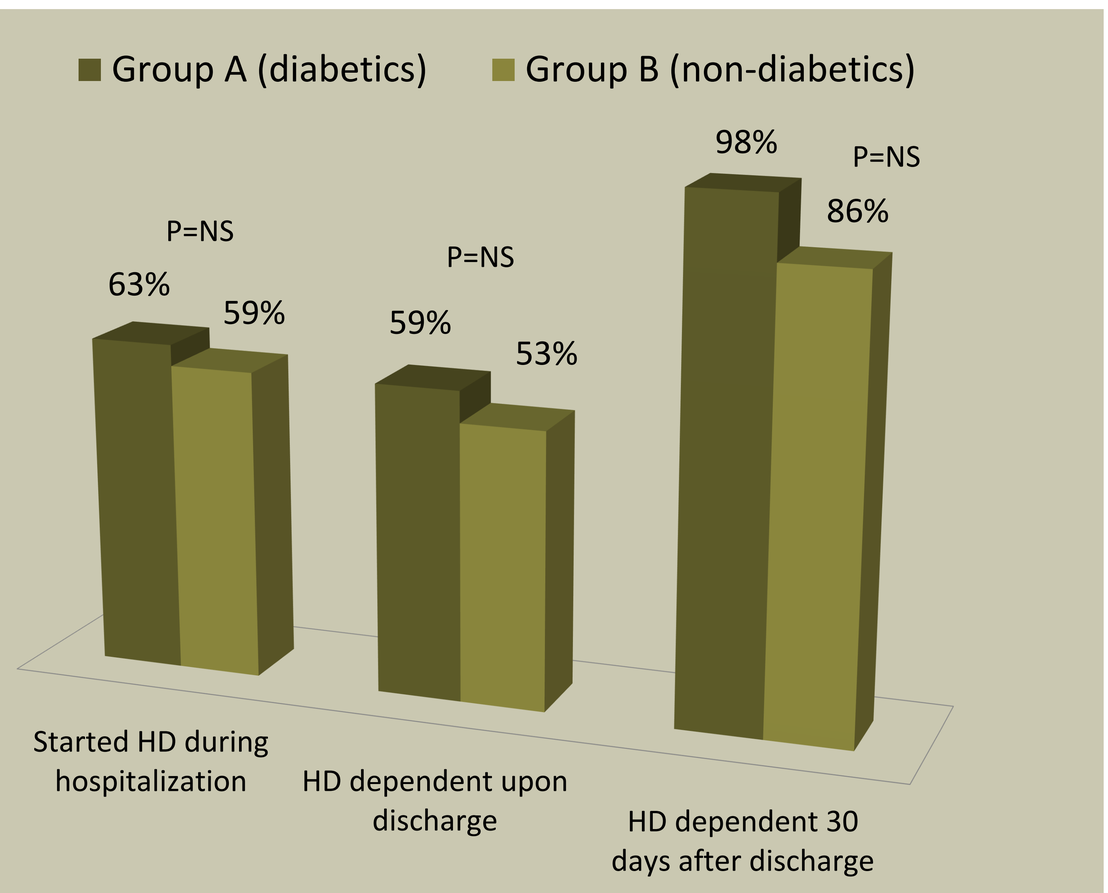
We retrospectively enrolled 316 patients aged ≥ 18 years old who were admitted with AKI (measured as an increase of at least ≥ 0.3 mg/dL or 1.5-2x their baseline creatinine). Baseline variables, Charlson score index (CSI) and laboratory data were collected at admission, upon discharge and over 1 month after. Two groups were created: group A (diabetic) (n=130, 41%) and group B (non-diabetic) (n=186, 59%). Patients with CKD stage 5 were excluded.

Results

Demographic data

316 Patients	
Male gender (n; %)	167 / 53 %
Age (years; mean ± SD; min-max)	75 ± 14 years (18-98)
<65 years	59 / 19%
65-80 years	117 / 37%
>80 years	140 / 44%

Variables	Group A (n=130, 41%)	Group B (n=186, 59%)	*p*
Age years; mean ± SD)	74 ± 10	74 ± 15	NS
> 80 years (%)	38	49	0.048
CSI ≥8 (%)	64	32	≤0.001
Hypertension (%)	84	62	≤0.001
Stroke (%)	19	9	0.009
Dyslipidemia (%)	45	25	≤0.001
Demencia (%)	16	7	0.01
COPD (%)	20	11	0.032
PAD (%)	40	15	≤0.001
Neoplasia (%)	7	5	0.041



	Group A	Group B	*p*
Overall mortality	16 (12%)	35 (19%)	NS
Mortality on HD	11 (69%)	22 (63%)	NS
In-hospital	10	17	NS
30 days after discharge	1	5	NS

There were ***no*** statistically significant differences between groups regarding overall age, presence of CHF, albumin at admission, serum creatinine (baseline and admission), days in dialysis treatment or length of hospital stay.

Conclusions

Although diabetic patients had more comorbidities than non-diabetics, it did not affect the rate of progression or probability of being on HD 30 days after discharge, neither it increased the mortality. This may result from a younger population together with a initial phase of diabetic nephropathy.

References

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