

Nephrologists 2020: Prevalence and Clinical Characteristics of Saudi Dialysis Patients with or without Positive Family Histories of Kidney Disease- Abdulla A Al Sayyari- King Saud Bin Abdulaziz University for Health Sciences

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Objective

This study aimed at evaluating the prevalence and clinical characteristics of Saudi dialysis patients with a positive family history of kidney disease and to compare these to those without a family history of kidney disease.

Secondary objectives were to assess the certainty of the diagnoses of causes CKD among the patients by their physicians

Methods & Material

This is a cross-sectional survey based study on adult Saudi patients on hemodialysis in six dialysis centers in four Saudi cities.

The survey had two parts. The first part (filled by the physicians of the patient) asked about the patient's sex, age, dialysis vintage, CKD vintage, cause of the renal failure and whether the diagnosis is definitive or speculative. The second part (filled by the patients) asked about the presence of kidney disease among first degree relatives (history of CKD, urinary abnormality and/or is or having been on dialysis).

Results

1080 patients were included, 55.4% males. The Mean age was 56.1 ± 20 years and the mean dialysis vintage was 5.7 ± 5.9 years and the mean time between diagnosis of CKD and onset of dialysis was 3.0 ± 5.6 years

Table 1 shows the causes of the CKD as determined by the patients' physician and whether this diagnosis is "definitive" or "speculative". Of all the diagnoses given, 57.8% were either "unknown" (33%) or only "speculative (25.3%)". In those with a diagnostic label, the diagnosis was thought to be definitive in only 62.2% of the cases". (Table 1).

21.5% had first-degree relatives with kidney disease with no significant difference cities. There were more patients with "unknown" or "hypertensive" diagnosis among patients with FH of kidney than in those without ($p=0.07$ and 0.005 respectively). No differences were observed when the cause was DN or GN.

No significant difference in the prevalence FH was seen by age ($p=0.5$). Dialysis vintage was significantly shorter ($p=0.03$) and CKD vintage was significantly longer ($p=0.0001$) in the patients with FH (table 2)

Unknown	33		
Diabetic nephropathy	32.2	52.30%	47.70%
Hypertension	20.1	58.50%	41.50%
Glomerulonephritis	5.1	83.30%	16.70%
Lupus Nephritis	2	90.50%	9.50%
APKD	1.8	94.70%	5.30%
Congenitally small kidneys	1.4	90%	10%
Calculi	0.8	100%	0%
Chronic interstitial nephritis	3.1	69%	31%
Joubert's	0.3	50%	50%
Alport's Syndrome	0.2	100%	0%
All	100%	62.20%	37.80%

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Patient characteristics	Positive FH	Negative FH	p
Among male patients	18.8%	80.2%	
$P=0.09$	20.1	58.50%	41.50%
Among female patients	23%	77%	
Mean patient age	55.3 yrs.	56.4 yrs.	0.5
Dx vintage among all patients	4.9 ± 6.4	5.9 ± 5.8	0.03
CKD vintage among patients	7.5 ± 7.7	2.0 ± 4.5	0.0001
Calculi	0.8	100%	0%
Chronic interstitial nephritis	3.1	69%	31%
Joubert's	0.3	50%	50%
Alport's Syndrome	0.2	100%	0%
All	100%	62.20%	37.80%

Table 2: Comparing some patient characteristics between those with and those without FH of kidney diseases

Conclusion

More patients with “unknown” or “hypertensive” diagnostic labels were seen in patients with FH but not when the causes of the patients were DN or GN. This suggests that under the umbrella of “unknown” or “hypertensive” diagnostic labels, a number of genetically-based kidney diseases might well be concealed. The dialysis vintage was significantly shorter and CKD vintage was significantly longer in the patients with FH.

Dialysis nonadherence among Saudi hemodialysis (HD) patients has not been concentrated already. We study its commonness, causes, and results. All constant HD patients at our middle were enlisted. Their socioeconomics just as levels of hemoglobin (Hb), Kt/v, potassium, and phosphate; dialysis type; dialysis vintage; term; and move were recorded. Nonadherence, characterized as missed dialysis meeting or patient-inferred shortening of the dialysis meeting by >10 min at any rate once longer than a month's time span, was recorded. We examined the relationship of nonadherence to crisis room visits, hospitalizations, interdialytic weight gain (IDWG), intradialytic indications, home-to-emergency clinic separation, and smoking propensities. 200 and sixty-five patients were incorporated; their mean age was 61.8 ± 18.2 years, 47.3% were male, dialysis vintage was 3.8 ± 3.3 years, 5.9% were on HD, and 34.1% were on hemodiafiltration. During the examination time frame, the nonadherence rate was 25% for missed dialysis meetings and 72% for abbreviated dialysis on at any rate one event. Nonadherence was bound to happen in guys than females (75% and 66%, individually, $P = 0.05$), in smokers (57.1% versus 21.7%, $P = 0.0003$), and in night moves instead of day shifts (33.6% versus 20.6%, $P = 0.042$). Nonadherent patients had lower Kt/V than follower patients (1.22 ± 0.2 and 1.31 ± 0.2 , separately $P = 0.01$), had higher mean IDWG (2.7 ± 1.0 and 2.4 ± 1.0 kg, individually, $P = 0.02$), and are bound to be hospitalized (half versus 32%, $P = 0.01$). Then again, no distinctions were seen in serum phosphate, potassium, or Hb levels; intradialytic indications; training; work; the separation between the dialysis unit and home; sort of dialysis; Charlson Comorbidity Index; or the dialysis vintage. The predominance of nonadherence in our gathering was equivalent to that of different reports and is bound

to happen in male patients, smokers, and those in night shifts. It is related with lower dialysis sufficiency, higher mean IDWG, and higher hospitalization rate. Early detection of acute kidney brokenness (AKD) in cirrhotic patients is vital. Urinary neutrophil gelatinase-related lipocalin (uNGAL) has been distinguished as an early marker of AKD. The point of the examination was to assess sequential uNGAL as a marker and indicator of AKD in liver cirrhosis patients. Strategies Serial uNGAL and serum creatinine (sCr) levels were estimated every day during the initial 6 days of confirmation. Besides, sCr levels and the assessed glomerular filtration rate (eGFR) were estimated following 3 - a month and a half. The uNGAL levels in patients with and without strange sCr were analyzed. Results Fifty-seven back to back cirrhotic patients were taken a crack at the examination. Eight of 14 patients (57%) who created strange uNGAL level likewise had irregular sCr level (chances proportion (OR) = 3.4, 95% CI: 0.99 - 12.03, $P = 0.05$). Following a month and a half, 41% of patients displayed an anomalous uNGAL level and unusual sCr (OR = 6.7, 95% CI: 1.55 - 28.85, $P = 0.01$). Territory under the bend (AUROC) and the best cut-off point for most noteworthy NGAL in 6 days were 0.64 and 72.55 ng/mL, separately. Decisions There are a humble relationship between most noteworthy uNGAL in the initial 6 days of affirmation and sCr at week 6 in all members. This may demonstrate that in cirrhotic patients, uNGAL level during the initial 6 days of confirmation has a likely consistency for the advancement of high sCr and low eGFR a month and a half later. The AUROC of 0.64 measures the general capacity of uNGAL to segregate between those people who will have a raised sCr levels and the individuals who won't.