



GERIATRIC PATIENTS WITH ADVANCED CHRONIC KIDNEY DISEASE HAVE A HIGH PREVALENCE OF UNDIAGNOSED PSYCHIATRIC SYMPTOMS AND POORER QUALITY OF LIFE

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Background

Chronic kidney disease (CKD) is a frequent condition in elderly subjects and often it may be associated with psychiatric comorbidities, above all with depressive symptoms. We evaluated if there is any association between the severity of renal dysfunction, the prevalence of psychiatric symptoms and the perception of quality of life in patients with CKD.

Methods

We evaluated cross-sectionally 100 prevalent CKD individuals (stages 3b -5) that were randomly selected among those that had attended the outpatient clinic of advanced kidney disease for at least 12 months from September 2014 to February 2016 (403 patients with CKD stages 3b -5 with an average follow up of 28±7 months. We excluded from evaluation 105 patients because they were not able to cooperate or they were deemed to have a life expectancy lower than 6 months or they already had a diagnosis of primary mood or psychotic disorders.

All patients were evaluated through the following rating scales: Mini-Mental State Examination (MMSE), Beck Depression Inventory (BDI), Symptom Checklist (SCL-90), Kidney Disease Quality of Life- Short Form (KDQOL-SF) and Cumulative Illness Rating Scale (CIRS).

The cohort was divided in two subgroups according to the median eGFR value (eGFR > or ≤ 26 ml/min). The subgroups were compared by Chi-Square tests for qualitative variables and by Multivariate Analyses of Covariance (MANCOVA) for continuous variables.

Results

We evaluated 62 males (62%) and 38 females (38%); mean age was 78±7 years. Twenty seven percent of patients were living alone without any caregiver, 42% were diabetic, 55% had suffered from cardio and/or cerebrovascular events. Overall CIRS comorbidity index was 4,34 ±1.70 and CIRS severity index 2.02 ±0.26. Thirty-eight and forty per cent of the total sample presented respectively previously unknown cognitive impairment (MMSE score ≤24) or depression (BDI score ≥12). After dividing our sample according to the median eGFR we did not find any difference in relation to most of demographic and clinical variables between the two groups (age, BMI, prevalence of diabetes, number of drugs assumed, comorbidity index).

In contrast, patients with eGFR≤26 ml/min had a worse state of mood (F=9.75, p=0.002) and a poorer quality of daily life (F=4.71, p=0.03) that were associated with the awareness of the severity of kidney disease.

Socio-demographic and clinical variables of the two groups divided according to the severity of chronic renal failure

VARIABLES		GFR> 26 (N=50)	GFR≤26 (N=50)	GFR>26 versus GFR≤26	p
Gender	Male	28 (56.0%)	34 (68.0%)	$\chi^2=1.53, df=1$	0.3
	Female	22 (44.0%)	16 (32.0%)		
Age (years)		78.02 (±7.76)	77.82 (±6.14)	F=0.02	0.9
Marital Status	Single	4 (8.0%)	8 (16.0%)	$\chi^2=3.44, df=2$	0.23
	Married/ cohabitant	30 (60.0%)	33 (66.0%)		
	Widower	16 (32.0%)	9 (18.0%)		
Caregiver	No	10 (20.0%)	14 (28.0%)	$\chi^2=0.88, df=1$	0.48
	Yes	40 (80.0%)	36 (72.0%)		
Pat MMSE	No	30 (60.0%)	32 (64.0%)	$\chi^2=0.17, df=1$	0.84
	Yes	20 (40.0%)	18 (36.0%)		
Pat BDI	No	28 (56.0%)	32 (64.0%)	$\chi^2=0.67, df=1$	0.54
	Yes	22 (44.0%)	18 (36.0%)		
Suicidal Thoughts (BDI)	No	47 (94.0%)	43 (86.0%)	$\chi^2=1.78, df=1$	0.32
	Yes	3 (6.0%)	7 (14.0%)		
Loss of Sexual Interest (BDI)	No	17 (34.0%)	18 (36.0%)	$\chi^2=0.04, df=1$	1
	Yes	33 (66.0%)	32 (64.0%)		
Pat SCL-90	Somatization	No 40 (80%) Yes 10 (20%)	41 (82%) 9 (18%)	$\chi^2=0.07, df=1$	1
	Obsessive-Compulsive	No 44 (88%) Yes 6 (12%)	48 (96%) 2 (4%)		
Interpersonal Sensitivity	No	47 (94.0%)	46 (92.0%)	$\chi^2=0.15, df=1$	1
	Yes	3 (6.0%)	4 (8.0%)		
Depression	No	45 (90.0%)	45 (90.0%)	$\chi^2=0, df=1$	1
	Yes	5 (10.0%)	5 (10.0%)		
Anxiety	No	48 (96.0%)	46 (92.0%)	$\chi^2=0.71, df=1$	0.68
	Yes	2 (4.0%)	4 (8.0%)		
Hostility	No	48 (96.0%)	49 (98.0%)	$\chi^2=0.34, df=1$	1
	Yes	2 (4.0%)	1 (2.0%)		
Phobic Anxiety	No	46 (92.0%)	43 (86.0%)	$\chi^2=0.92, df=1$	0.53
	Yes	4 (8.0%)	7 (14.0%)		
Paranoid Ideation	No	47 (94.0%)	49 (98.0%)	$\chi^2=1.04, df=1$	0.62
	Yes	3 (6.0%)	1 (2.0%)		
Psychoticism	No	47 (94.0%)	46 (92.0%)	$\chi^2=0.15, df=1$	1
	Yes	3 (6.0%)	4 (8.0%)		
Global Severity Index	No	48 (96.0%)	45 (90.0%)	$\chi^2=1.38, df=1$	0.44
	Yes	2 (4.0%)	5 (10.0%)		
Psychiatric drugs	No	38 (76.0%)	40 (80.0%)	$\chi^2=0.72, df=3$	0.9
	Anxiolytics	7 (14.0%)	7 (14.0%)		
	Antidepressants	4 (8.0%)	2 (4.0%)		
	Both	1 (2.0%)	1 (2.0%)		
KDQOL-SF	Effects of Kidney Disease on Daily Life	81.48 (±12.71)	87.66 (±13.23)	F=4.71	0.03
	Burden of Kidney Disease	56.75 (±23.55)	72.24 (±23.46)	F=9.75	0.002
	General health	47.78 (±14.05)	48.01 (±18.46)	F=0.06	0.81
	Quality of Social Interaction	76 (±28.44)	78.32 (±24.58)	F=0.03	0.86

Legend:

BDI: Beck Depression Inventory

KDQOL-SF: Kidney Disease Quality of Life Instrument (KDQOL)

MMSE: Mini Mental State Examination

SCL-90: The Symptom Checklist-90

Conclusions

Advanced stages of chronic kidney disease are associated with a high prevalence of previously undiagnosed psychological and psychiatric impairments and with a poorer quality of life. Therefore we suggest that periodical psychological assessment of patients with advanced CKD may help to identify those subjects that would possibly benefit of a stable psychological or psychiatric follow up.