

Psychiatric Co-morbidities and Their Association in Patients on Dialysis

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DOI: <https://doi.org/10.52403/ijhsr.20221215>

ABSTRACT

Background: Multi morbidity is a growing concern for healthcare systems, with many countries experiencing demographic transition to older population profiles. Hemodialysis has been shown to have an adverse impact on the emotional status of patients with end-stage renal disease (ESRD). Common associated psychological problems include depression, anxiety, fatigue, decreased quality of life, and an increased risk for suicide. Chronic kidney disease (CKD) is common but often considered in isolation. The extent and prognostic significance of its co-morbidities is not well understood. This cross-sectional study aims to psychiatric assessment of ESRD patients on dialysis.

Results: Two hundred fifty people were included; Cases were selected during the study period from April 2021 till July 2022. A semi-structured interview, clinical psychiatric assessment is done to measure psychiatric disorders.

Conclusions: Incidence of psychiatric illness among end-stage renal disease patients on hemodialysis is high. The most prevalent psychiatric disorders among these patients are depression and anxiety disorders.

Keywords: Hemodialysis, Psychiatric comorbidity, Quality of life

INTRODUCTION

Numerous psychiatric issues could be seen in patients with chronic kidney disease (CKD). Hemodialysis is a renal substitution treatment causes different psychiatric issues. Hemodialysis is the most preferred treatment method for CKD. However, it has been insisting that a number of restrictions and modifications accompany this treatment, which have a ruinous impact on the quality of patient's life and affect individuals psychological and physical well-being [1,2]. The stress associated with the diagnosis and treatment of CKD may predispose these patients to significant psychiatric co-morbidity. Psychiatric co-morbidity in patient with CKD is high and unremitting without appropriate treatment. Data show that much of the probable

psychiatric co-morbidity experienced by patients with CKD goes unrecognized and therefore untreated. Many of the psychiatric problems suffered by patients could be prevented or at least ameliorated if psychological problems are recognized early by healthcare professional so that appropriate and effective intervention can be done.

REVIEW OF LITERATURE

Chronic renal disease (CRD) is characterized by varying degrees of deterioration of the functional capacity of the renal. The last stage of this illness is end-stage renal disease (ESRD), at which point hemodialysis (HD) treatment is necessary for patient survival [3]. Numerous psychiatric issues could be seen in patients

with chronic kidney disease (CKD). Hemodialysis is a renal substitution treatment causes different psychiatric issues. Hemodialysis is the most preferred treatment method for CKD. However, it has been insisting that a number of restrictions and modifications accompany this treatment, which have a ruinous impact on the quality of patient's life and affect individual's psychological and physical well-being [4].

The beginning of dialysis treatment causes subtle changes in the life of CRD patients, mainly in

the physical and social spheres. For this reason, individuals diagnosed with CRD usually develop neuropsychiatric complications.[5] Hemodialysis has been shown to have an adverse impact on the emotional status of patients with end-stage renal disease (ESRD). Common associated psychological problems include depression, anxiety, fatigue, decreased quality of life, and increased risk for suicide [6] Co-morbidity' is usually defined as having two or more chronic morbidities, therefore people with CKD who have one or more co-morbidity meet this definition [7]. Co-morbidities are important because they may impact on treatment burden, medications management, quality of life, and survival [8]. In addition, multiple co-morbidity and associated polypharmacy have major implications for patients' capacity to cope with treatment as considered in a 'burden of treatment model. This describes the actions that patients are

required to undertake to successfully manage their condition as 'work' (both self-management and in interaction with health services) and their ability to respond appropriately as 'capacity' [9].

METHODS

A descriptive cross-sectional study was conducted on 250 patients with end-stage renal disease undergoing hemodialysis aged from 15 years to 70 years who were enrolled from the Dialysis Unit at tertiary care center at Shimla.

The study was approved by the ethical committee of Indira Gandhi Medical College, and a written informed consent obtained from all patients before the study was commenced.

Inclusion criteria includes those aged between 15 to 70 years, both sexes, and those with end-stage renal disease (ESRD) patients on maintenance hemodialysis.

Exclusion criteria includes patients with any psychiatric illness before renal infection, patients with any other physical illness other than diabetes mellitus (DM) and hypertension, patients with acute infection. Diagnosis of psychiatric disorders was made according to International classification of disease-10 (ICD-10)[10]. The HAM-A was one of the first rating scales developed to measure the severity of anxiety symptoms, and is still widely used today in both clinical and research settings. The scale consists of 14 items, each defined by a series of symptoms, and measures both psychic anxiety [11]. Hamilton Depression Scale (HAM-D) The Ham-D is the most widely used clinician-administered depression assessment scale. The original version contains 17 items (HAM-D17) pertaining to symptoms of depression experienced over the past week. Although the scale was designed for completion after an unstructured clinical interview, there are now semi-structured interview guides available.[12]

RESULTS

Total 250 patients were included in the study out of which 101 were male (40%) and 150 (60%) were females. Study shows that 57% of patient of ESRD started dialysis between 2 and 5 years and 37% started at less than 5 years. There was a high prevalence of psychiatric co morbidity among the patients undergoing haemodialysis as more than half of patient (56%) has psychiatric illness while 44% has no psychiatric illness. More than half of dialysis patient 62.3% have depression, 28.4% of anxiety disorder.

Duration of dialysis and presence of medical and psychiatric co morbidities among the ESRD patients.

Variable	no.			%
Onset of dialysis	< 1 y	15	6%	
	1-5 y	143	57%	
	> 5 y	92	37%	
Psychiatric co morbidities	Yes		No	
	No.	%	No.	% -
Depression	155	62.3%	95	37.8%
Anxiety	71	28.4%	179	71.6%
Adjustment disorder	24	10.3%	226	89.7%

Table 1: Association of psychiatric co-morbidities with demographic variables

Variables (n)	Psychiatric Co-morbidity (n)		P Value
	Present	Absent	
Age Group			0.517
15-35	40	50	
36-55	80	30	
56 and above	30	20	
Gender			<0.001
Male	30	70	
Female	40	110	

Table 1 shows association of psychiatric co morbidities with demographic variables. Our study observed that none of the demographic variables except gender was

significantly associated with presence of psychiatric co-morbidities. Female sex has more of psychiatric co-morbidities as compare to male sex.

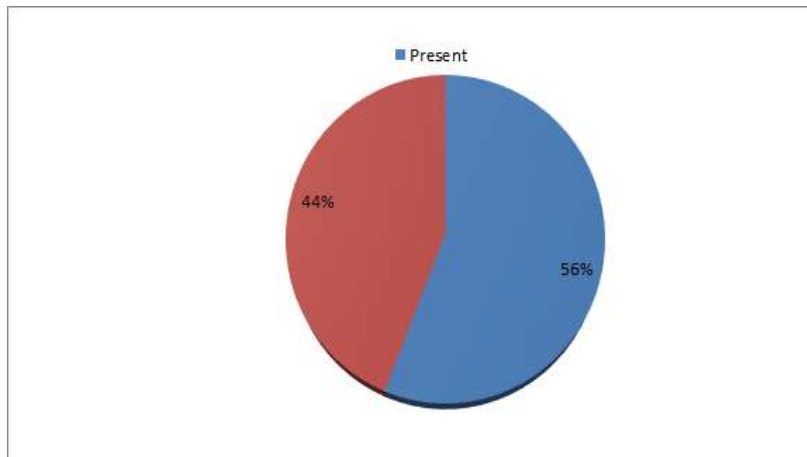


Figure 1: Psychiatric co-morbidity.

DISCUSSION

In this study we found that 56% of them suffered from psychiatric illness 62.3% of them suffered from depression, while 28.4% of them suffered from generalized anxiety disorders, 10.3% had adjustment disorder. No symptoms of mania, hypomania, and dysthymia were detected. These findings agreed with the study done by Kober et al. [13] which was done on 100 patients 50 of them were cases of ESRD and the other 50 were control group. He found the prevalence of psychiatric illness among

them was 44%, 40% of patients suffered from depression, while the percentage of patients suffering from anxiety disorders were 42%. These findings agree with Garcia et al. [14], who found that (68.1%) of them had score equal to or more than 7, which suggested depression. psychiatric illness in ESRD can be attribute of multiple stressor like difficulty in holding a job, financial issue, fear of dying, fluid limitation, food limitation, itching, fatigue, limitations on time, risk of unemployment, transportation difficulties, loss of bodily function, length

of dialysis treatment, and limitation of physical activities. Our study showed that there was a significant correlation between age of the patient and anxiety as anxiety symptoms increases with advancement of age. These findings agree with those of Bossola et al. [15]. Concerning depression and age, our findings come correlated with Patel et al.'s [16] study which was carried out on 150 patients and revealed that there was no significant correlation between age and presence of depression. Regarding anxiety, our study showed that anxiety is more observed in males and married patients. This comes in agreement with a study done by Kober et al. who found that male patients had 65% of psychiatric disorders including anxiety. [13]

CONCLUSION

Incidence of psychiatric illness among end-stage renal disease patients on hemodialysis is high. The most prevalent psychiatric disorders among these patients are depression and anxiety disorders. Training programs should be initiated towards early detection of psychiatric illness among ESRD patients and early initiation of treatment.

Declaration by Authors

Ethical Approval: Approved

Acknowledgement: None

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

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- How to cite this article: Kushel Verma, Naresh Chauhan, Dinesh Dutt Sharma. Psychiatric co-morbidities and their association in patients on dialysis. *Int J Health Sci Res.* 2022; 12(12):92-96.
DOI: <https://doi.org/10.52403/ijhsr.20221215>
