ORIGINAL ARTICLE

Prevalence, Severity and Associations of Depression among Chronic Hemodialysis patients in a tertiary care hospital of adeveloping country

SYED RIZWAN BOKHARI, JAVARIA SARDAR, MAHAM MALIK, *HINA BUSHRA, ANUM WAHEED BHATTI, MUHAMMAD KASHIF SALEEM, MARIA RIZWAN BOKHARI*

ABSTRACT

Background: Affective disorders, particularly depression are commonly seen among End Stage Renal Disease (ESRD) patients on maintenance hemodialysis. It contributes to more frequent hospital admissions as compared to other chronic disorders and thus causes significant morbidity.
Aim: To assess the prevalence and severity of depression in patients with chronic hemodialysis in a tertiary care center.
Methodology: Patients undergoing regular hemodialysis in Department of nephrology, Jinnah Hospital, Lahore, Pakistan were included. The Hamilton Rating Scale for Depression (HAM-D) version translated and adapted in Urdu, was used to assess the study population.
Results: Sixty four patients were included in study. Thirty six (56%) were males and the mean age of patients was 43.9 years. The patients were interviewed with the (HAM-D) questionnaire comprising of 20 questions. Seventeen patients (26%) were found to have very severe depression (> 23 score), 11(17%) patients with severe depression (19-22 score), 18(28%) patients moderate depression (14-18), 9(14%) having mild depression (8-13 score) and 10(15%) patients having no depression (0-7 score) according to HAM-D score.
Conclusion: This single center study finds a considerable depression of varying degrees in chronic hemodialysis patients. Increased awareness and effective monitoring for depression should be integrated into regular care early on dialysis and robust efforts should be made to decrease morbidity associated with it.
Keywords: Haemodialysis, depression, Hamilton Rating Scale, end stage renal disease

INTRODUCTION

End stage renal disease (ESRD) patients on maintenancehemodialysis (HD) have multiple co morbidities leading to variety of psychological issues. Number of patients needing renal replacement therapy (RRT) in developing countries are increasing exponentially as compared to facilities providing such treatment. Very few patients can get free or subsidized dialysis treatment, adding to the disease burden and poor standards of care for deprived pts.

Affective disorders particularly depression are commonly seen among ESRD patients on maintenance hemodialysis[1]. It contributes to more frequent hospital admission as compared to other chronic disorders and thus carries significant morbidity[2]. It has been widely claimed that depression among ESRD patients is a most common psychopathological condition[3].

[1]Department of Nephrology, AllamaIqbal Medical College Lahore.
[2]Department of Medicine, PAF Hospital Lahore
[3]Department of Medicine,
[4,5]Department of Nephrology, [6]Department of Medicine[7]Department of Radiology, AllamaIqbal Medical College
Correspondence: Syed RizwanBokhari
Email: riz.bokhari@gmail.com

Psychiatric disorders in CKD are 1.5 times to three times more than individuals with other chronicdiseases[4]. Previous studies have shown that ESRD patients have lower health related quality of life compared to healthy population[5]. Factors contributing to anxiety and depression in ESRD patients include stress associated with twice or thrice weekly HD, polypharmacy with multiple side effects and decreased functioning ability as an effective member of society. Early identification and adequate therapy of psychological disorders, and cognitive disorders are thought to improve quality of life among these patients[6].

There is a paucity of data relating to therapeutic interventions in depression in ESRD. Our aim of this study was to determine the prevalence and severity of depression among ESRD patients on maintenance hemodialysis.

METHODS

We conducted a cross sectional study at the dialysis center and Department of nephrology, Jinnah Hospital, Lahore, Pakistan. A total of 64 ESRD patients on thrice weekly maintenance hemodialysis, above the age of 18 years were included in

studyaccording to pre-defined inclusion criteria..The study was approved by institutional ethical review committee of Jinnah hospital Lahore. The Hamilton Rating Scale for Depression (HAM-D) version translated and adapted in Urdu, was used to assess the depression in study population. Patients who were unable to understand that questionnaire were excluded from the study.

Ethical consideration: The patients were asked to participate anonymously. Participation in this study was completely voluntary. They were able to withdraw at any time while completing the questionnaire. Informed consent was provided with the questionnaire, and return of the survey was voluntary.

RESULTS

Sixty four patients were included in study. Thirty six (56%) were males and the mean age of patients was 43.9 years. The patients were interviewed with the (HAM-D) questionnaire comprising of 20 questions. Seventeen patients (26%) were found to have very severe depression (>23 score), 11(17%) patients with severe depression (19-22 score), 18(28%) patients moderate depression (14-18 score), 9(14%) having mild depression (8-13 score), and 10(15%) patients having no depression (0-7 score) according to HAM-D score. Out of total 64 patients, 54(84%) had some degree of depression. Out of these 54 depressed patients 28(52%) had two or more co morbidities, 46(8 %) were unemployed, 43(79%) were from lower middle class and 23(42%) were illiterate. Results regarding duration on HD and association with depression showed that 34(62%) were getting HD for 3 or more years with higher prevalence of depression 17(50%) as compared to 11(36%) of patients HD for less than three years.

DISCUSSION

Depression usually overlaps with uremic symptoms of ESRD.[7]Depressionamong ESRD may adversely affect mortality and quality of life[8].

Hemodialysis requires patients to adapt to certain restrictions such as low fluid and salt intake,chronic pain and anxiety associated with frequent cannulation of arteriovenous fistula (AVF). Other factors implicated in psychological disorders include impaired daily functioning, dependency on peers, loss of control, frequent hospitalizations and multiple medications with various hazardous effects[9].

Regarding severity of depression, this study revealed that 26% of patients had symptoms of very severe depression (>23 score), 11% had severe depression (19-22 score) 28% fall in category of moderate depression, 14% were found to have mild depression and in only 15%(0-7 score) patients were found to have no depressive symptoms at all. This result is consistent with previous studies who also found high prevalence of depression and as well as anxiety among patients who were on chronic hemodialysis[10]. Previous studies have shown that moderate depressive symptoms are frequent among approximately 25% of ESRD patients, and major depression is common in 5-22% of ESRD patients[11].

Apart from depression, other psychiatric illnesses that have been commonly observed in ESRD are dementia (bothdialysis related and or vascular dementia), delirium, schizophrenia, psychoses, and personality disorders[12].

Depression may affect the immunological function, nutrition of patients, and compliance factors (compliance to medications, dietary restrictions) and delivery of dialysis, which may, in turn affect the outcome[13].

Regarding the age, mean age of the sample was 43 years. There was no relation of age and severity of depression observed in our study.

In respect to duration of hemodialysis, patients were divided to two groups, one group were on HD for less than three years and other was on HD for more than three years, in former group 11/30 (36%), and in latter group 17/34(50%) experienced severe depression.ESRD patients with more than three years of hemodialysis found to have higher percentage of severe depression. Despite the high prevalence of depression (60%) in ESRD patients, it is still an unrecognized disorder because of the superposed symptoms of uremia and chronic illness[14]. Patients who were found to have very severe, moderate to severe and mild depression were offered psychotherapytreatment as well as antidepressant therapy but most of them turned it down. Patients who received psychotherapy took only 1-2 sessions provided in dialysis unit as that were free of cost and were lost to follow up without patient psychologists. This may be related to underlying stigma, which could be resolved by increasing awareness and education among patients[15]. Educating staff of hemodialysis, patients, and caregivers may promote early recognition, support and treatment.

Current accepted therapies for depression include antidepressant therapy combined with psychotherapy[16]. Presently, wide variety of antidepressant drugs is available for the management of depression in ESRD. Each of these have varied effects on renal function therefore special considerations are needed while putting patients on these drugs. Many patients do well if individual psychotherapy is provided in the dialysis unit itself.

The limitations of the study was the fact, subjects were taken up from a single center, which may limit the generalizability of findings.

CONCLUSION

This single center study finds a considerable depression of varying degrees in chronic hemodialysis patients. Increased awareness and effective monitoring for depression should be integrated into regular care early on dialysis and robust efforts should be made to decrease the morbidity associated with it.

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