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Original Article

Depression in Iraqi Hemodialysis Patients

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Abstract

Introduction: Affective disorders, particularly depression, are the commonest and probably the most important psychopathological complication of end stage renal disease (ESRD). Depression has the potential to alter adversely the medical outcome of ESRD patients and the psychological stress can affect patient's adherence to medication regimen. In Iraq as well as many other Arab countries, the true prevalence of depression among ESRD patients is unknown. The objective of this study was to determine the prevalence of depression among a cohort of Iraqi hemodialysis (HD) patients and relate it to their socio-demographic characteristics.

Methods: We recruited patients from two HD centers in Baghdad, excluding patients with history of depression or other psychiatric disorders prior to the initiation of HD. The Arabic version of diagnostic and statistical manual of mental disorders fourth edition (DSM-IV) was used to diagnose depression. Beck's Depression Inventory was used to grade its severity. Clinical and laboratory data of the study group were documented and related to the diagnosis of depression.

Results: Seventy-five Iraqi patients on maintenance HD were included in the study. Patients' duration on HD ranged from six months to five years. The prevalence of depression among this cohort of HD patients was 80%. The prevalence of severe, moderate and mild depression was 25%, 50% and 25% respectively. The mean depression score was 17.1. Female gender, unemployment, and marital status had statistically significant associations with depression.

Conclusion: Depression is common in this group of Iraqi HD patients and its prevalence is comparable to the results of similar studies in other societies.

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Introduction

Chronic kidney disease (CKD) is a worldwide public health problem. The rising prevalence of treated ESRD can be attributed primarily to the increasing numbers of patients who start renal replacement therapy (RRT) each year, and to a lesser extent, to the improving survival of patients with ESRD. ESRD patients consume a disproportionate share of health care resources and remain in need for more health care. In all its stages, CKD is associated with many co-morbidities that will be perpetuated by the initiation of RRT. Both organic and psychological ailments congregate and might affect the management plan of those patients.

Hemodialysis is the most commonly used form of renal replacement therapy, but patient survival and quality of life on HD remains an important issue. Affective disorders, particularly depression, are the commonest and probably the most important psycho-pathological complications of ESRD [1]. The true prevalence of depression in patients with ESRD, however, is unknown. Estimates of the prevalence of increased depressive affect in patients with renal disease vary between 0 and 100%, depending on the study and the assessment tool chosen for screening [2]. Depression has the potential to alter adversely the medical outcome of patients with ESRD through several mechanisms. Psychological stressors can affect patients'compliance with the medication regimen. In previous studies, increased depressive affect was associated with poor compliance in dialysis patients [3]. Furthermore, depression is linked to poor nutritional

status and has been shown to precede a decline in serum albumin levels in patients with ESRD [4, 5]. Depression is also related to poor quality of life, and some studies showed that suicidal tendencies or attempts are significantly more common among dialysis patients than the general population [6].

Thus, screening for depression in dialysis centers is warranted given its high prevalence and association with increased morbidity and mortality. Because hemodialysis is the main form of renal replacement therapy in our country, this cross-sectional study was conducted to check the frequency of depression and its risk factors in two dialysis centers in Baghdad, Iraq.

Methods

This cross sectional study was conducted in the hemodialysis units of Baghdad Teaching Hospital and Al-Kindy Teaching Hospital between May 2008 and January 2009. Full neuro-psychiatric evaluation was done and patients who had depression or other psychiatric disorders before HD initiation were excluded from the study.

After obtaining informed consent from the patient and his/her family, the Arabic version of diagnostic and statistical manual of mental disorders fourth edition (DSM-IV) was used to diagnose depression and Beck's Depression Inventory was used to measure the severity of depressive disorder. Depression severity was graded according to the inventory score; nil or normal (0 - 4), mild (5 – 7), moderate (8 – 15), severe (16 and above). Clinical and laboratory characteristics of the study group were documented by the responsible nephrologist.

Statistical analysis was performed using SPSS version 14 (SPSS Inc., Chicago, IL, USA). Chi-square test was used to test the significance of association between discrete variables. P value less than 0.05 was considered statistically significant.

Results

Seventy-five ESRD patients maintained on regular HD were included. Patients were on regular HD for periods ranging from 6 months to 5 years. The mean age of studied patients was 47 years, including 51 females (68%) and 24 males (32%). Fifty-four patients (72%) were married. Thirty-five patients (46%) completed secondary school. Thirty patients (40%) of the study group had history of smoking, but there was no history of alcohol or drug addiction. Forty-one patients (54%) were living in urban society.

The prevalence of depression in the study group was 80%. Fifty percent of patients with depression (30 patients) was assigned a depression score of moderate severity according to Beck's Depression Inventory, while 25% had mild depression and 25% had severe depression. The mean depression score was 17.1.

The highest prevalence of depression was found among younger patients (20 to 40 years-old). The prevalence of depression was significantly higher among females, unemployed patients and married patients. There was no statistically significant association between depression and education level or type of residence.

Discussion

Depression is the commonest psychological problem in patients with ESRD [1]. The somatic characteristics of depression are similar to symptoms of uremia, like anorexia, sleep disturbance, fatigue, gastrointestinal disorders and pain [7]. Because of this overlap it is difficult to distinguish between symptoms related to either condition. Patients with ESRD are reported to feel loss of autonomy and lack of understanding by families, physicians, and society, which can increase their feelings of despair [8].

In this study, the prevalence of depression among a group of Iraqi prevalent hemodialysis patients was found to be 80%. This is consistent with a Pakistani study that showed a prevalence of 72% among HD patients [9]; a figure much higher than the reported prevalence of depression in the general population of Pakistan [10].

According to the Iraq mental health survey in 2009, the lifelong prevalence of major depressive disorder in Iraq is 7.2% [11], and to the best of our knowledge, this is the first study to evaluate depression in HD patients in our country. Results of this study are similar to data from other Arab countries; Saudi Arabia, Egypt, and Sudan [12-14].

The highest prevalence of depression was found in young patients aged from 20 to 40 years, which is compatible with another similar study [15]. However, in a study of a large cohort of HD patients from twelve countries

the highest incidence of depression was found in older patients [16].

Factors with statistically significant association with depression included female gender, being married and unemployment. Loss of bodily function, distorted body image, decreased income and uncertainty about the future reflect the poor social and employment status of ESRD patients and put more stressors on them [17, 18].

Factors not associated with depression in this study included level of education and residence. However, other studies found that education has a very strong association with the psychological parameters of depression like insomnia, fatigue and diminished interest that may be due to misperceptions about the disease [9].

Conclusion

It's apparent that the majority of studied Iraqi HD patients were depressed. Female gender, unemployment and being married were the main risk factors. A multicenter study with a larger sample is recommended to determine the true prevalence of depression in HD patients across the country.

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