

Depression in a Group of Patients with Chronic Renal Failure Attending Haemodialysis Unit in Teaching Hospital in Baghdad

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Abstract

- Background** Depression is the most common psychopathological condition among patients with chronic renal disease yet it is still under recognized and underestimated. Depression adversely affects the already disturbed quality of life of patients with chronic renal disease.
- Objectives** To determine the rate of depression in a sample of chronic renal failure patients attending haemodialysis unit in teaching hospital in Baghdad and examine the sociodemographic variables of such patients.
- Methods** This is a cross-sectional study done at Al-Kadhmyia Teaching Hospital, during a period of 2 months from 4th of January 2009 to 4th of March 2009. The total of 50 random cases with chronic renal failure coming for haemodialysis were interviewed by semi structured schedule for psychiatric diagnosis. Results were reviewed by simple descriptive and inferential statistical measures.
- Results** The rate of depression in this sample of patients with chronic renal failure was 40%. There was no statistically significant relation between any of the demographic variables and depression.
- Conclusion** The rate of depression in this study is high. Results were compared with other studies in light of circumstances of this study.
- Key words** Depression, chronic renal failure, haemodialysis

Introduction

Depression is the most common psychopathological condition among patients with chronic renal disease, yet it is still under-recognized and misdiagnosed⁽¹⁾. Depression reduces quality of life and has a negative clinical impact upon sufferers with chronic illness, including chronic renal disease⁽¹⁾. End-stage renal disease (ESRD) has a significant impact upon the lives of sufferers; the experience of multiple losses, including kidney function, family role, work role, sexual function, time and mobility, have significant impact on the lives of patients^(1,2). Further stressors, including medication effects⁽³⁾, dietary constraints, fear of death and dependency upon treatment⁽⁴⁾, may affect quality of life and exacerbate feelings of loss of

control^(2,3). While prevalent, depression is still often unrecognized⁽⁴⁾, reflecting a lack of routine psychological evaluation among this patient population⁽⁴⁾. The consequences of missing depression among dialysis patients may be considerable. Comorbid depressive illnesses amplify the impact of chronic illnesses, and increase functional disability and the use of health care services⁽⁵⁾.

Since its earliest known descriptions dating back to the Old Testament, depression has been observed as a disruption of normal lifestyle. Major depressive disorder is one of two serious mood disorders (the other is bipolar disorder or manic depressive disorder) that affect every aspect of life. Because there is no mania or elevated mood in major depressive disorder, it is called "unipolar"

depression. Changes in mood are a natural, normal part of life. People usually recognize, and are comfortable with a change in mood. People with depression, however, often cannot explain the reason for becoming depressed, though they describe it as emotionally painful and saddening. The predominant symptoms of depression are a general loss of interest and energy, and an inability to experience pleasure⁽⁶⁾. A person with depression typically withdraws from or becomes impaired in social interactions. Apathy toward work, school, relationships, responsibility, and eventually toward important goals, negatively affects the person and the family. The economic cost is significant in terms of lost hours, reduced productivity, and health care⁽⁶⁾. The diagnostic and statistical manual, fourth revision of American Psychiatric Association (DSM-IV) provides four disclaimers to the clinical diagnosis of depression in chronic medical disease. It is necessary to describe depression as a mood disorder, which differs from depression associated with other psychiatric or medical conditions. If any of the following four situations apply to a person with chronic medical disease, then depression is present⁽⁷⁾.

1. It cannot be established that an organic factor initiated and maintained the disturbance.
2. The disturbance is not a normal reaction to the death of a loved one (uncomplicated bereavement).
3. At no time during the disturbance have there been delusions or hallucinations for as long as 2 weeks in the absence of prominent mood symptoms (i.e., before the mood symptoms developed or after they have remitted).
4. Not superimposed on schizophrenia, schizophreniform disorder, delusional disorder, or psychotic disorder NOS (not otherwise specified)

Chronic renal failure (CRF) refers to an irreversible deterioration in renal function which classically develops over a period of years. Initially, it is manifest only as a

biochemical abnormality. Eventually, loss of the excretory, metabolic and endocrine functions of the kidney leads to the development of the clinical symptoms and signs of renal failure, which are referred to as uremia. When death is likely without renal replacement therapy, it is called end-stage renal failure (ESRF). The social and economic consequences of CRF are considerable. In the UK, over 37 000 patients (632 per million) are kept alive by renal replacement therapy and approaching 110 new patients per million of the adult population are accepted for long-term dialysis treatment each year. Of these, 50% are aged over 65⁽⁷⁾. The incidence of CRF is much higher in some countries due to differences in regional and racial incidences of disease, as well as differences in medical practice. For example, in the USA, incident rates are over 300 per million populations, with nearly half of these patients having a primary diagnosis of diabetes mellitus⁽⁸⁾.

DSM IV does not claim any direct biological causal relation between chronic medical disease including chronic renal failure and depression but understand depression in this population as a consequence of the psychological reaction to the losses accompanied⁽⁶⁾.

Objectives

- 1- To determine the rate of depression among patients with chronic renal failure attending haemodialysis unit.
- 2- To review the sociodemographic variables in patients with CRF and depression.

Methods

This is a cross-sectional study which was performed in Al-Kadhimiya Teaching Hospital, during a period of 2 months from 4th of January 2009 to 4th of March 2009.

A total of 50 cases of chronic renal failure, as diagnosed by physician, were selected from patients in haemodialysis unit. Sampling was by random-random approach of selection of cases. All cases were interviewed face to face using a semistructured interview schedule

according to the DSM IV. Formal consent by the patient to participate in study was performed. Depression was diagnosed according to DSM IV criteria of depression in patients with chronic medical disease.

General Sociodemographic factors were examined such as age, address, educational level, and economic circumstances. The exclusion criteria were those with age less than 18 years, other primary physical disorder, and other primary psychiatric disorder.

Results

Of the 50 patients studied 27 were males (54%). The age mean was 55 years (SD 10.6). Depression occurred in rate of 40 % of the patients. Regarding symptoms of depression, 72% of total sample reported feelings of sadness, 24% reported diurnal variation of mood, 48% reported lack of interest, 10% reported worthlessness, 16% reported hopelessness, no patients reported helplessness, 6% reported guilty feelings, 32% reported thoughts of death wishes, 4% reported suicidal thinking and 2% reported suicidal attempt. 72% of total sample reported decrease in appetite. 70% reported decrease in weight and. 58% reported decrease in sleep (Table 1).

Table 1. Symptoms of depression

| Symptoms | percent |
|--------------------|---------|
| Sadness | 72% |
| Lack of interest | 48% |
| Worthlessness | 10% |
| Hopelessness | 16% |
| Helplessness | 0% |
| Guilty feelings | 6% |
| Death wishes | 32% |
| Suicidal thinking | 4% |
| Suicidal attempt | 2% |
| Diurnal variation | 24% |
| Decreased appetite | 72% |
| Decreased weight | 70% |
| Decreased sleep | 52% |

Of the 27 male patients who participated in the study 10 had depression (37%) while 10 out of 23 females had the disorder (43%). There was no association between depression and difference in gender (chi square 0.215, df 1, sig. 0.6) (Table 2).

Table 2. Gender and depression chi square

| 0.215 df 1 Sig 0.6 | | | |
|--------------------|------------|----|-------|
| Gender | Depression | | Total |
| | Yes | No | |
| Male | 10 | 17 | 27 |
| Female | 10 | 13 | 23 |
| Total | 20 | 30 | 50 |

Most patients were in age range of 51-60. There was no association between age and depression (chi square 7.334, df 7, sig. 0.394) (Table 3).

Table 3. Age and depression

| Chi square 7.334 df 7 sig 0.395 | | | |
|---------------------------------|------------|----|-------|
| Age | Depression | | Total |
| | Yes | No | |
| 18-30 | 0 | 3 | 3 |
| 30-40 | 4 | 2 | 6 |
| 40-50 | 5 | 4 | 9 |
| 50-60 | 2 | 6 | 8 |
| 60-70 | 3 | 8 | 11 |
| 70-80 | 3 | 3 | 6 |
| 80-90 | 3 | 3 | 6 |
| 90-100 | 0 | 1 | 1 |
| Total | 20 | 30 | 50 |

Most of patients had primary school education. There was no association between education and depression (chi square 7.074, df 3, sig.0.07) (Table 4).

Most patients had intermediate economic status. There was no association between depression and economic status (chi square 0.09, df 1, sig.0.764) (Table 5).

Table 4. Education level and Depression

| chi square 7.074, df 3, sig. 0.07 | | | |
|-----------------------------------|------------|-----------|-----------|
| Education Level | Depression | | Total |
| | Yes | No | |
| Illiterate | 3 | 9 | 12 |
| primary school | 13 | 10 | 23 |
| Intermediate school | 0 | 5 | 5 |
| College | 4 | 6 | 10 |
| Total | 20 | 30 | 50 |

Table 5. Economic status depression chi square

| 0.09 Df 1 sig. 0.714 | | | |
|----------------------|------------|-----------|-----------|
| Economic state | Depression | | Total |
| | Yes | No | |
| Low | 4 | 5 | 9 |
| Intermediate | 16 | 25 | 41 |
| High | 0 | 0 | 0 |
| Total | 20 | 30 | 50 |

Discussion

The findings of this study have similarities and differences with other studies as it is estimated that 20-30% of patients with end stage renal disease has depression, although research has tended to focus on the hemodialysis (HD) population and overlooked patients receiving peritoneal dialysis (PD). Among the medically ill, depression is a common concern accounting for half of the identified psychopathology^(1,8-10).

On the other hand there are controversial figures in regard to the exact prevalence of depression in this population. In fact there is a wide variation regarding prevalence of depression among the medically ill ranging from 15%-61% depending on tools used for diagnoses and definition criteria⁽¹¹⁾. Rating scales such as Beck Depression Inventory (BDI) and Hamilton Anxiety and Depression Scale (HADS) reveal high rates of depression in comparison to diagnostic interviews⁽¹²⁻¹⁴⁾.

Although self-report screening measures, including the BDI, have been validated against well-established psychiatric methods in dialysis

patients^(8, 10, 20), the most accurate way of screening for depression (without professional evaluation) remains to be a difficult task^(1,2,15), and is predominantly influenced by the issue of criterion contamination. Disagreements still remain regarding the preferred depression screening tool for the dialysis population. Using an existing or modified depression tool (BDI for example) for the dialysis population is beneficial.

A more ideal, yet problematic, task would be to develop a specific depression assessment tool for the dialysis population. Currently, this work is unlikely to succeed until we improve our understanding of the issues surrounding depression assessment in patients with a chronic illness. The current study used semi structured interview according to DSM IV performed by psychiatrist yet the rate of depression found here is high and comparable to results found through screening tools mentioned above (BDI, HADS).

It should be kept in mind that this study has some limitations that sample is relatively small and duration of study was short according to the circumstances of the study.

Special care is needed to avoid underestimation of depression in this population of patients on the light of impact of depression at both psychological and somatic level⁽⁵⁾. Depression increase burden on patients and carers in addition to direct risk to health by decrease in appetite and direct risk of death by suicide. It is important to mention here that 2 patients in this study attempted suicide.

This study did not find any association between depression and any of the examined demographic criteria such as gender, age, education, economic status. This can be explained by the fact that biological factor represented by the presence of renal disease act as common psychological and possible psychosocial stressful risk factor that contributes to depression in this population in comparison to depression in medically healthy population.

The current definition criteria for depression in chronic medical disease according to DSM IV exclude the direct biological contribution of such illness to depression or any direct biological causal relation between chronic medical including chronic renal failure and depression⁽⁶⁾.

In another word this study assumes that the diagnosis of renal failure which is biological factor in this population acted as possible common stress or possible common psychological factor (and its possible accompanying social factors) in all age groups, both genders ,all the involved educational groups and all the involved economic categories resulting to depression

Conclusions

Depression is a prevalent and costly burdening to chronic renal failure patients impacting on a psychological and somatic level. Under-recognition of depression in this population is a major concern, particularly given the evidence of its impact on co morbidity and mortality.

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