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Prevalance of Depression in Patients with ESRD on HD- A Cross Sectional Observational Study in a Teaching Hospital in Karnataka

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Original Research Article

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Abstract: To assess the prevalence of depression in patients on chronic hemodialysis and to evaluate the risk factors**.** 100 patients undergoing hemodialysis were included in this study. After obtaining ethical clearance and informed consent depression was diagnosed using DSM IV criteria. Detailed history of the patient including demographic variables was obtained. Depression was diagnosed in 28 out of 100 patients. Unmarried, poor family and social support, female sex, age above 40 years, number of months on HD correlated significantly with the diagnosis of depression. More than a quarter of patients undergoing hemodialysis have depression. Patient and care taker counseling through multi skilled renal team will bring down this number significantly.
Keywords: ESRD - end stage renal disease, HD - hemodialysis

BACKGROUND AND OBJECTIVES

Depression in HD patients affects their quality of life. This study is an attempt to highlight the urgent need to detect and treat depression in ESRD patients undergoing HD. Early recognition and appropriate intervention (pharmacological, counselling, social support, holistic approach, exercise etc.) will bring down repeated hospital admissions due to noncompliance.

INTRODUCTION

Chronic kidney disease with ESRD is increasingly being noticed as more and more diabetic patients are surviving. The prevalence of depression in patients with ESRD varies from 20 - 30 % in different patients [1].

This is higher compared to general population (5- 10%), patients with diabetes mellitus (12-18%) [2], coronary artery disease (15-23%), COPD (25%)[3].

As many of the symptoms of depression mimic those related to uremia and side effects of drugs, depression is often missed in routine consultation unless high index of suspicion is kept during history taking.

MATERIALS AND METHODS

100 subjects undergoing chronic HD were included in this study. The study was done in Adichunchanagiri Institute of Medical Sciences, B G Nagara between June 2017 to December 2017. These patients were compared with 100 healthy subjects (age and sex matched) attending health camps conducted by the rural wing of the hospital.

STATISTICAL ANALYSIS

Tools used in this study are descriptive statistics and students paired t- test done using SPSS software.

RESULTS

Depression was reported in 28 out of 100 patients in comparison with 06 out of 100 healthy subjects. Unmarried, poor family and social support, female sex, age above 40 years, number of months on HD correlated significantly with the diagnosis of depression.

Table 1: Patient Characteristics

Parameters	Mean values
Age (years)	55 ± 8
Sex (F/M)	28/62
Duration of HD in months	20 ± 4
Depression	28/100

Table 2- Etiology of ESRD

Diabetic nephropathy	36%
Hypertensive nephrosclerosis	12%
Glomerulonephritis	9%
Tubulo interstitial nephritis	19%
Unknown causes	24%

HD- hemo dialysis, F – female, M - male
ESRD- end stage renal disease

DISCUSSION

Our study found more than 28% depressed patients undergoing chronic HD. This is higher when compared with age and sex matched diabetic population with normal renal function[5].

The male: female ratio is 28/62
Average age - 55±8 years.
Duration of HD - 20±4 months

Depression was found in 28 out of 100 patients. The same in Diabetic patients with normal renal function (age and sex matched) was 12 out of 100.

The implication of this study on mortality, readmission and quality of life (QOL) when compared with 2 other studies were almost similar [6].

In another study, self-reported depression through patient questionnaire (KDQOL) short form study was significantly associated with higher risk of death and hospitalization even after excluding other comorbid conditions [7].

To improve the quality of life multi-disciplinary care approach including social support and holistic approach through multi skilled renal team where ever possible, patient and care taker counselling 1 year before anticipated HD and before the first dialysis (clinical and psychological preparation) through health and social welfare scheme will go a long way in reducing incidence of depression and improving quality of life (through early recognition and appropriate intervention [7].

Limitations of our study

- Some patients who were not willing to complete the questionnaire were not included in the present study.it is possible that they are too depressed to respond.
- Additional stressors associated with ESRD like biochemical imbalance, physiological changes, neurological disturbances, cognitive impairment and sexual dysfunction can potentially play a role in causing depression were not studied.

CONCLUSION

Depression is prevalent in over quarter of patients on chronic HD compared to diabetic patients with normal renal function. Further studies are needed to reduce the incidence of major depression which indirectly lead to noncompliance (regarding medication, diet and fluid restriction) resulting in more hospital admissions, increased morbidity and mortality [3]. It has been observed that depressed patients on HD are 3 times as likely to be non-compliant [4].

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