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DEMOGRAPHIC PROFILE OF PATIENTS WITH COMORBID DEPRESSION IN COPD IN A TERTIARY CARE CENTER IN SOUTH INDIA – A DISCRIPTIVE STUDY.

Psychiatry

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ABSTRACT

Patients suffering from chronic medical illnesses like COPD are reported to have psychiatric disorders like depression and anxiety. Though the prevalence of COPD is high in Indian population, there are very few studies regarding the presence of depressive disorders in patients with COPD. Knowing the prevalence of depressive disorders is important in offering holistic treatment for these patients. In this study 131 subjects with chronic respiratory disease were recruited through purposive sampling and was screened using MINI - International Neuropsychiatric Interview Scale. Those diagnosed with depression were further evaluated using HAMD for severity of depression. The results were analyzed using chi square test. Analysis showed that 64.1% of the patients had depressive disorders. Significant higher prevalence of depressive disorder was noted in patients belonging to older age, illiterates and among low socioeconomic Stata. Severity of Depressive disorders increased with duration of illness, number of hospitalizations, use of steroid drugs.

KEYWORDS

COPD, psychiatric morbidity, depression

INTRODUCTION

Psychiatric disorder is one of the comorbidities in the medically ill patients. Hospitalized medically ill patients have major depression 2-3 times more often.[3] A number of studies have shown that depressive symptoms in persons with COPD can have adverse effects on functional mobility, symptom burden, the ability to tend to daily tasks, and mortality.[8–11] These studies, however, have primarily been conducted in the setting of an acute COPD exacerbation, where the frequency of depressive symptoms is higher[8,12,13] Prior studies of persons with COPD report a prevalence of depressive symptoms that range broadly with some studies estimating the prevalence as low as 6% and other studies estimating the prevalence as high as 56%.[14]

Depressive symptoms are common in patients with COPD, even when their disease is mild.[28] Depression in COPD patients have led to lower exercise tolerance, greater difficulty in stopping smoking, noncompliance with treatment, poorer health-related quality-of- life, and increased disability[31]. Depression predict a greater likelihood of relapse and hospitalization[31,29]. Depression in out-patients suffering from COPD appears to be an independent predictor of mortality[30].Chronic corticosteroid use may also exacerbate depression, emotional liability, or irritability. So there is a need to know the prevalence of depression in patients with chronic obstructive respiratory disease so as to formulate a better strategy to reduce the burden on the patient and the caregivers.

METHODS

Total of 131 subjects who are diagnosed as having COPD are chosen by purposive sampling method from the inpatient and outpatient facility of Department of Medicine and Department of Pulmonology of a tertiary care institute in a period of 6 months from June 2013 to December 2013. Those diagnosed to have chronic obstructive respiratory disease(COPD) clinically and based on spirometry assessment were recruited for the study after obtaining informed consent . Patients included in the study are screened for psychiatric disorders using MINI (Mini International Neuropsychiatric Interview) which is a diagnostic questionnaire and further assessment of severity was made using Hamilton depression rating scale. The socio demographic data of the patients are collected on a semi structured proforma. Data collected were compiled and analyzed using SPSS and frequency distribution percentage, mean and standard deviation were calculated. Chi square test was used to find the association between different variables. Values of $p<0.05$ was considered significant. The study was conducted after obtaining ethical clearance from the institute ethics committee.

RESULTS

The study population came from predominatly rural population(n=78). Majority of the patients had studied upto middle school or aboveand most of the men worked as unskilled workers(n=58) whereas women are mostly homemakers (11 patients). Among all the patients 119(90.8%) are married, 10(7.6%) are widower, 1(0.8%) is divorced and 1(0.8%) is separated. Socio economic status is measured by the SESS for socio economic factors. 2(1.5%) patients belongs to class I, 10(7.6%) patients belongs to class II, 35(26.7%) patients belongs to class III, 69(52.7%) belongs to IV class and 15(11.5%) belongs to V class.

Duration of illness was measured based on patients having illness less than 5 years and patients having illness more than 5 years. In which 90(63.7%) patients had illness <5 years and 41(31.3%) had illness > 5 years. Of the total patients 99(75.6%) patients had less than 2 hospitalizations each lasting for more than a week of admission per year and 32(24.4%) patients had more than 2 hospitalisations each lasting for more than a week of admission, And 44(33.6%) patients used steroid medication and 87(66.7%) patients used only bronchodilators.

Among the total 131 patients ,30.5% of the patients had mild to moderate depression 52.5% of them had anxiety disorders and only 13.7% of these patients had severe depression When age groups were compared , most of the patients with comorbid depression were in the 41-60 years of age(n=43) and among these nearly half (n=22) had moderate depression and severe depression was noted in 30% of the patients. Among 36 females, 4(8.5%) have mild, 12(25.5%) have moderate and 6(12.8%) have severe depression. The p value of 0.766 in the group statistics is not significant.

There are 39 patients from urban background with 5(12.8%) having mild, 7 having (17.9%) moderate and 3 having (7.7%) severe depression. 14 patients from semiurban background 3(21.4%) with mild, 2 (14.3%) with moderate and 3(21.4%) with severe depression. 78 patients from rural background among whom 5 (6.4%) have mild, 18 have (23.1%) moderate and 12 have (15.4%) severe depression.

Among the 2 patients belonging to socioeconomic status 1, both has mild depression, among the 10 belonging to socioeconomic status 2, 1(10.0%) has mild depression and 1(10.0%) severe depression. Among the 35 patients with socioeconomic status 3, 3(8.6%) has mild depression, 8(22.9%) has moderate depression and 5(14.3%) has severe depression. 69 patients of socioeconomic status 4, 6(8.7%) mild depression, 15(21.7%) moderate depression and 5(7.2%) has severe depression and 15 patients of socioeconomic status 5, 1(6.7%) has mild depression, 4(26.7%) has moderate depression and 7(46.7%) has severe depression.

Among the study group 90 patients having illness less than 5 years, 11(12.2%) has mild depression, 17(18.9%) has moderate depression and 1(1.1%) has severe depression, and among 41 patients having illness more than 5 years, 2(4.9%) has mild depression, 10(24.4%) has moderate depression and 17(41.5%) has severe depression Among the 99 patients who were hospitalised for less than 2 times for more than a week in a year, 13(13.4%) has mild depression and 22(22.2%) has moderate depression and 32 patients who were hospitalised for more than 2 times for more than a week in a year, 5(15.6%) has moderate

depression and 18(56.2%) has severe depression.

Among 44 patients using steroid drugs, 1(2.3%) has mild depression, 9(20.5%) has moderate depression and 16(36.4%) has severe depression, and among 87 patients not using steroid drugs, 12(13.8%) has mild depression, 18(20.7%) has moderate depression and 2(2.3%) has severe depression.

Among the 20 patients with severe COPD based on FEV1, 3(15%) has moderate depression and 11(55%) has severe depression. 90 patients with moderate COPD, 11(12.2%) has mild depression, 20(22.2%) has moderate depression and 7(7.8%) has severe depression, and 21 patients with mild COPD, 2(9.5%) has mild depression and 4(19.0%) has moderate depression.

The depressive disorders are computed against socio demographic variables like age, gender, religion, domicile, education, occupation, marital status, socio economic status and clinical variables like duration of COPD, number of hospitalization, use of steroid

DISCUSSION

The present study shows psychiatric morbidity in COPD patients. It also shows the relationship between socio demographic variable like age, gender, marital status, domicile, education, religion, occupation, socio economic status and clinical variables like duration of illness, number of hospitalisation, use of steroid drugs associated with COPD and FEV1.

In the present study 84(63.4%) patients with COPD have psychiatric disorder as comorbidity. Total prevalence of depression is 44.9%. Among them depressive disorders are more (69%), followed by anxiety disorder (61.9%). In these 26 patients (31%) has only anxiety and 32 patients (38.1%) has only depression. One has mania (1.2%). There are 26 patients with both depression and anxiety among psychiatric disorder (31%). The above results are comparable with studies on prevalence of depression by Gurmeet Singh[36] 41.9% , Janet Maurer[60] 50% , Mikkelson R L[56]50% and Ryu Y J[66] 55%.

Depressive disorders in different age groups are compared and the statistical value is highly significant. High prevalence of depression in seen in age group 50-60 years followed by age group of 41-50 years which is comparable to study by Sachdev et al , in which psychiatric disorders among medical outpatients showed high morbidity in 60 years of age group and also in study by Sriram[43] et al in which depression is seen in patients above 55 years, and also in study by Gurmeet Singh[36] (age group of 46-55 years) And also in studies done by Balcells et al. But this differs from studies by Bhatia et al (21-30 years) and Chathurvedi et al (26-45 yrs age group).

In this study depressive disorder in different socioeconomic status are studied and the p value is highly significant. More depressive disorder is seen in patients belonging to low socioeconomic group. This could be attributed to increased financial burden on the family due to the illness which acts as a psychological stress. COPD also cause decrease in work capacity and due to this patients cannot perform their occupation effectively, leading to economic crisis. This is comparable with studies by Sajal De[69], Mahendru[48], Janet Maurer[62] and Balcells[66]. And not comparable with studies by Sachdev[44], in which it is more prevalent middle socioeconomic group.

In this study depressive disorders with different duration COPD are compared and it is very highly significant. The longer the COPD, the more pronounced is the severity of depressive disorder. Prolonged duration of illness could cause helplessness and can also lead to financial burden. Patients often have exacerbation and fear of an acute breathlessness which might lead to more depressive illness.

Number of hospital admission directly correlated with severity of depression which might be due patient perception about the disease, patient's knowledge about the seriousness of the disease, which can lead to helplessness and hopelessness. Somatic symptoms are also similar to symptoms of depression and hence there may be over inclusion of depressive disorder. This is comparable with study by Zhenying COA[59].Steroid use for COPD and co-occurrence of depression was highly significant. This is compatible with studies by Gift[50]

CONCLUSION

There is significant comorbidity of depression associated with CODP which might have negative impact on the outcome of the illness . So screening and treating the comorbid depression can improve the outcome and quality of life of these patients. But as this study is done with a small sample size, the results may not be generalizable. So more robust studies are necessary to further confirm the results.

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