



MEDICAL CO MORBIDITIES IN PATIENTS OF LEWY BODY DEMENTIA-A HOSPITALBASED STUDY

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ABSTRACT

Background: Dementia is increasingly becoming a major healthcare challenge as the population ages worldwide, with an estimated 25 million cases of dementia globally. Lewy Body Dementia (LBD) accounts for 10% to 25% of dementia cases in clinical populations. The studies which analyzed co-morbidities exclusively in Lewy body Dementia(LBD) are very rare and are absent in Indian population, Current study is an attempt to figure out medical co-morbidities in patients of LBD in an Indian set up. **Methods:** Twenty five patients diagnosed with LBD with Neary criteria were included in the study; socio demographic and medical co-morbidities were recorded and Clinical Global Impression scale(CGI-S) was administered to find out severity of the disorder. Each patient was informed about the purpose of interview; his/her consent was obtained and strict confidentiality was ensured. **Results:** Out of the total sample size of 25 patients, 11 patients had single co-morbidity, while as 7 patients had two co-morbidity and 4 patients had three co-morbidity. Males were more represented in the sample; most patients belonged to marked and severe category in severity of illness. **Discussion:** In our study, we found a positive association with male sex, increased risk was found in patients with Migraine, and other co-morbidities were in accordance with general prevalence of them in elderly, the illness was rated severe in most patients indicating the nature and rapid progression LBD.

KEYWORDS: *Lewy Body Dementia, Medical Co Morbidity, Dementia Of Lewy body, Dementia.*

INTRODUCTION

Dementia is increasingly becoming a major healthcare challenge as the population ages worldwide, with an estimated 25 million cases of dementia globally.^[1] In clinical populations Lewy bodies Dementia (LBD) accounts for 10% to 25% of dementia cases.^[2] LBD is associated with more severe type of illness, worse prognosis, rapid progression and poor response to treatment.^[3-4] LBD is characterized by visual hallucinations, motor symptoms, sleep disorders and autonomic dysfunction, Co-morbidities may predict a worse outcome in LBD also it significantly increase utilization of healthcare resources,^[5-7] History of migraine has been reported to occur more often in LBD patients than in other types of dementia, an inverse relation with vascular risk factors are also reported.^[8] Understanding risk factors and co-morbidities may provide new insights into the underlying Pathophysiology of LBD also possibility of prevention. Currently very limited data is available regarding various aspects of LBD compared to other types of Dementias. This is the first study in Indian set up which focused exclusively on medical co-morbidities in LBD.

AIMS AND OBJECTIVES

1. To find out the socio-demographic details of patients of Lewy Body Dementia.
2. To study medical co morbidities and severity of illness patients of Lewy Body Dementia by using clinical global impression severity Scale (CGI-S).

MATERIALS AND METHODS

This was a cross sectional, observational study conducted in the Department of Geriatric Mental Health, King George Medical College Lucknow, a tertiary care teaching hospital. King George Medical College is one of the oldest institutes of India. It is located in the centre of Lucknow which is the capital of Uttar Pradesh. It has a wide catchment area. The sample size included 25 patients. The study included patients who were diagnosed with Lewy Body dementia according to Neary Criteria. This is the most widely used Research criteria for the diagnosis of Lewy Body dementia (LBD) in practice and research.

Research instrument

1. Study case record/proforma: It consisted of a self-designed interview schedule to record the socio-demographic data, details of medical Co-morbidities.

2. Clinical Global Impression: The CGI, developed by National Institute of Mental Health (NIMH), is a three-item scale which measures overall illness severity. Repeated, it can evaluate response to treatment. The rater evaluates the severity of the patient’s illness based on his total experience with the specific patient population to which the patient belongs. Severity of illness is rated on a seven-point spectrum (1=normal, 7=among the most extremely ill patients).^[7]

RESULTS

Table. 1: Summarizes the characteristic and socio-demographic details of the participants.

Characteristics		Value
Total sample size		25
Age (years)	50-64	8
	65-80	17
Gender	Male	16
	Female	9
Resident	Rural	20
	Urban	5

Table. 2: Medical Co Morbidities.

Medical co-morbidity	Distribution
DM	08
HTN	12
HYPOTHYROIDISM	03
MIGRAINE	05
CONNECTIVE TISSUE DISORDER	01
BPH	08

Table. 3: CGI (Clinical Global Impression Severity) scale.

Severity of illness	Distribution
Normal	0
Borderline	0
Mild	0
Moderate	6
Marked	11
Severe	8

DISCUSSION

The current study aim to find out the prevalence of various medical Co-morbidities in patients of LBD. Most patient in the sample belonged to the age group 60 to 70 which is in concurrence with the available data which suggests mean age of onset of LBD to be similar to Alzheimer’s dementia.^[9-15]

Males were affected more than females in our sample which again has support from autopsy studies from the past which reports increased male prevalence in autopsy studies of LBD.^[16] But the sample size was not adequate to clearly suggest increased prevalence in male sex. The

catchment area of the hospital was mainly rural population as evident from the sample.

One of the most common co morbidity reported was Migraine, about 25 percent of patient sample had history of migraine which is much higher than the prevalence in general population (14%), Migraine has been known to be associated with reduction in brain volumes and as a risk factor for dementia^[11], visual hallucinations are commonly associated in both conditions which makes it an interesting association, also emphasize the need of future research in to the area.

Hypertension and diabetes are known risk factors for AD but in our sample prevalence of both co- morbidities were similar to prevalence in general elderly population which may indicate that as such these conditions have no direct link with LBD, Some of the studies in this area are controversial especially some of them suggest that LBD is protective against stroke and other white matter diseases, the presence of diffuse Lewy body pathology is inversely correlated with white matter changes which is an invariable outcome of long standing hypertension and diabetes.^[17]

The other common co-morbidities like Hypothyroidism and Benign prostate hypertrophy were as per prevalence in general elderly population. The severity of illness as per CGI showed more patients in marked and severe stage illness which is expected considering the rapid progression of LBD and poor response to treatment.

Lewy body dementia is relatively under diagnosed condition compared to Alzheimer’s dementia; though the prevalence of LBD is more than what is thought to be, finding out the risk factors and co-morbidities will open up avenues for preventive aspect of the illness and further research is a serious need considering the lack of research in the area, Our study brought about some interesting findings such as increased risk of LBD in patients of Hypothyroidism and relatively more male representation, also absence of relationship with vascular risk factors. Further studies with larger sample size is required to generalize study findings.

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