Original Article

# Prevalence of dementia at psychiatry inpatient department: A hospital based study

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## Abstract

**Introduction:** Dementia is an emerging health problem, as the elderly population is increasing so is the prevalence of dementia Cognitive impairment prevalence also increases with increasing age. As such, there is scarcity of prevalence studies from Northern India due to ethnic and sociocultural diversities. There is regional variation in prevalence of cognitive decline as well as risk factors from region to region. **Aims and Objectives:** To study Prevalence and various factors associated with Dementia at Psychiatry Inpatient Department **Methodology:** This was a cross sectional, hospital based study in all the patients who diagnosed as Dementia and admitted to the Psychiatry inpatient department at tertiary health care center during the year Mar 2013 to Mar 2014**.** After obtaining informed consent from each subject, data were collected on a preformed proforma. Hindi-mini-mental state examination (HMSE) was used in each subject. In an elderly person with a HMSE score <23, detailed history and physical examination was done on a pretested proforma. Clinical diagnostic criteria used was Diagnostic and statistical manual for Mental disorder fourth edition Text Revision (DSM-IV-TR) for Alzheimer's disease and Vascular dementia.[19]. As per above diagnostic criteria only 30 patients were included in this study during the period of one year. **Result:** As per diagnostic criteria and patients in inpatient department were all above the age of 60 years in that also the most common age group was 60-69 years age group i.e. (63.33%). After that 70-79 (23.33%) and >80 (13.33%). In the study population males were more than females i.e. (56.67%) and (43.33%) respectively. (70.00%) was illiterate as compared to (30.00%) were literate. Most common Diagnosis of Dementia was of Senile (70.00%) followed by Vascular (Atherosclerosis) (16.67%); Alzheimer's disease (10.00%) and (3.33%) Other Diagnosis (3.33%).Most common Risk factor associated; found in our study was Heavy alcohol Consumption (33.33%) followed by Atherosclerosis (23.33%), Obesity (BMI>30) (16.67%), Diabetes (10.00%), Family history(6.67%), Known case of Psychiatric illness (3.33%), H/O Head injury (3.33%), H/O Smoking (3.33%). **Conclusions:** As this diseases is associated with some of the risk factors like Heavy alcohol Consumption, Atherosclerosis , Obesity , Diabetes ,Family history, Known case of Psychiatric illness, History of Head injury, history of Smoking so these factors should be avoided and routine mild exercises like yoga and meditation should be promoted in aged persons.

**Keywords:** Dementia, DSIM-IV, Hindi-mini-mental state examination (HMSE).

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## INTRODUCTION

Age is the single biggest risk factor for dementia. Once you hit age 65, your risk of developing Alzheimer's disease doubles every five years, according to the Centers for Disease Control and Prevention. You can't hold back the clock, but there are many other things you can do to keep your brain healthy as you get older[21]. Dementia is an emerging health problem, as the elderly population is increasing so is the prevalence of dementia[1,2,3,4,5,6] Cognitive impairment prevalence also increases with increasing age.[7,8,9] As such, there is scarcity of prevalence studies from Northern India due to ethnic and sociocultural diversities. There is regional variation in prevalence of cognitive decline as well as risk factors from region to region.[10] Epidemiological studies of dementia in person ≥60 years in urban and rural population of southern India had obtained prevalence rates of 27-33.6/1000 and 34-36/1000, respectively[11,12,13] In a population aged ≥65 years from reported prevalence rate of dementia is 13.6/1000 and 18/1000 from a rural

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community of Ballabgarh, Northern India and urban community of Mumbai, India respectively[14,15]

## AIMS AND OBJECTIVES

To study Prevalence and various factors associated with Dementia at Psychiatry Inpatient Department.

## MATERIAL AND METHODS

This was a cross sectional, hospital based study in all the patients who diagnosed as Dementia and admitted to the Psychiatry inpatient department at tertiary health care center during the year Mar 2013 to Mar 2014**.** After obtaining informed consent from each subject, data were collected on a preformed proforma. Hindi-mini-mental state examination (HMSE) was used in each subject. This is modified a modified version of mini-mental state examination (MMSE) in vernacular language with less emphasis on calculation ability, designed mainly for illiterate Hindi speaking population.[16, 20]it is validated measure for evaluating cognitive decline. HMSE score of ≤23 has sensitivity of 81.3% and specificity of 60.2%.[17,18]. In an elderly person with a HMSE score <23, detailed history and physical examination was done on a pretested proforma. Clinical diagnostic criteria used was Diagnostic and statistical manual for Mental disorder fourth edition Text Revision (DSM-IV-TR) for Alzheimer's disease and Vascular dementia.[19]. As per above diagnostic crieteria only 30 patients were included in this study during the period of one year.

## RESULT

**Table 1:** Distribution of the patients with respect to Various Socio Demographic Characters

| Age | No. (%) |
|---|---|
| 60-69 | 19(63.33%) |
| 70-79 | 7 (23.33%) |
| >80 | 4 (13.33%) |
| **Sex** | |
| Male | 17 (56.67%) |
| Female | 13 (43.33%) |
| **Educational Status** | |
| Illiterate | 21 (70.00%) |
| Literate | 9 (30.00%) |
| **Diagnosis** | |
| Senile | 21 (70.00%) |
| Vascular (Atherosclerosis) | 5 (16.67%) |
| Alzheimer's Disease | 3 (10.00%) |
| Other | 1 (3.33%) |

From Table 1: As per diagnostic criteria and patients in inpatient department were all above the age of 60 years in that also the most common age group was 60-69 years age group i.e. (63.33%). After that 70-79 (23.33%) and >80 (13.33%). In the study population males were more than females i.e. (56.67%) and (43.33%) respectively. (70.00%) was illiterate as compared to (30.00%) were literate. Most common Diagnosis of Dementia was of Senile (70.00%) followed by Vascular (Atherosclerosis) (16.67%); Alzheimer's disease (10.00%) and (3.33%) Other Diagnosis (3.33%).

**Table 2:** Distribution of the patients as per history of Associated Risk Factors

| Risk Factors | No. (%) |
|---|---|
| Heavy alcohol Consumption | 10(33.33%) |
| Atherosclerosis | 7(23.33%) |
| Obesity (BMI>30) | 5(16.67%) |
| Diabetes | 3 (10.00%) |
| Family history | 2 (6.67%) |
| Known case of Psychiatric illness | 1(3.33%) |
| H/O Head injury | 1(3.33%) |
| H/O Smoking | 1(3.33%) |

From Table 2: Most common Risk factor associated; found in our study was Heavy alcohol Consumption (33.33%) followed by Atherosclerosis (23.33%), Obesity (BMI>30) (16.67%), Diabetes (10.00%), Family history (6.67%), Known case of Psychiatric illness (3.33%), H/O Head injury (3.33%), H/O Smoking (3.33%).

## DISCUSSION

One of the consistent findings across various studies is that the prevalence of dementia increases proportionately with age[22].In our study we have Observed Most common Risk factor associated; found in our study was Heavy alcohol Consumption (33.33%) followed by Atherosclerosis (23.33%), Obesity (BMI>30) (16.67%), Diabetes (10.00%), Family history (6.67%), Known case of Psychiatric illness (3.33%), H/O Head injury (3.33%), H/O Smoking (3.33%). And, most common diagnosis in the patients were Senile dementia (70.00%),Vascular (Atherosclerosis) (16.67%), Alzheimer's disease (10.00%). most common age group was 60-69 years age group i.e. (63.33%). After that 70-79 (23.33%) and >80 (13.33%). In the study population males were more than females i.e. (56.67%) and (43.33%) respectively. (70.00%) was illiterate as compared to (30.00%) were literate.

## CONCLUSIONS

As this diseases is associated with some of the risk factors like Heavy alcohol Consumption, Atherosclerosis, Obesity, Diabetes, Family history, Known case of Psychiatric illness, History of Head injury, history of Smoking so these factors should be avoided and routine mild exercises like yoga and meditation should be promoted in aged persons.

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