Research Article

Changing disease pattern of patients attending a geriatric clinic in India

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ABSTRACT

Background: Psychiatric morbidity is common in geriatric population along with other medical ailments. Increasing longevity contributes to higher prevalence of degenerative diseases in the elderly. In this perspective, the disease patterns may have changed in this age group and more so in the developing countries. **Objectives:** The current study explores the sociodemographic profile, disease patterns of various psychiatric ICD-10 diagnoses, and medical comorbidities in the elderly outpatients attending geriatric clinic. **Materials and Method:** The sample consists of 319 elderly outpatients attending geriatric clinic from September 1999 to December 2002 at National Institute of Mental Health and Neuro-Sciences, Bengaluru, India. This institute is one of the 10/66 centers. This sample is a heterogeneous population of both genders and age >60 years. The patients were assessed using a semi-structured interview as well as laboratory and other investigations as required. **Results:** The common psychiatric morbidity of this population is dementia (42.4%) and affective disorders (27.3%). However, the medical comorbidity of these patients is also high (41.9%). Previous study from the same center in 1996 reported that 4.2% of patients attending psychiatric services were 60 years and above. The most common problems in the previous study included psychoses (66%), of which about two-thirds (43% of the total) were non-organic psychoses. **Conclusion:** Dementia, a degenerative disease, forms the largest group of mental illness in elderly outpatients attending geriatric clinic. Other organic psychiatric diseases follow this. Medical comorbidity is concurrently seen in patients with the psychiatric morbidity. This extrapolates the requirement of the multidisciplinary approach in managing the patients in geriatric age group.

KEY WORDS: Comorbidity; Geriatric; Medical Diagnoses; Psychiatric Diagnoses

INTRODUCTION

The need for health-care delivery and research for the elderly population appears to be increasing day by day in India.[1] The number of elderly >60 years of age is about 70 million as on 2001. It is expected to cross 179 million by 2031.[2] The rapid change in social structure and traditional value systems has a tremendous impact of the well-being of the senior citizens as well as the equilibrium of the society itself (Dhar, 2001). The western response to this task was expressed as a spurt in research activities in different aspects including prevalence studies in the old age population. There are limited Indian studies on the geriatric population, particularly with respect to psychiatric morbidities. Most of such prevalence studies in the elderly in India are community-based studies and surveys. A study in a representative rural geographical area in northern India [3] indicated a prevalence of psychiatric morbidity of 43.3% in the elderly; neurotic depression, MDP-depression, and anxiety state were the common diagnoses in descending order of frequency. Depressive disorders were the most common mental disorders in elders.

The prevalence studies of psychiatric morbidity in hospitals are limited. A recent prospective study of 1586 patients from

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a specialty geriatric clinic at the All India Institute of Medical Sciences, New Delhi, provided information about the health and functional status of older Indians seeking health services [4]. Results revealed that 95% of the subjects were <80 years of age and 87% of them sought medical attention for an acute illness. About one-third of a subset of 209 subjects had a psychiatric illness and depression accounted for 50% of all psychiatric illnesses. Few studies conducted in the recent past have been directed specifically at the psychiatric illness of geriatric population [5] from the National Institute of Mental Health and Neuro-Sciences (NIMHANS), another institution-based study reported that 4.2% of patients attending psychiatric services were 60 years and above. The most common problems included psychoses (66%), of which about two-thirds (43% of the total) were non-organic psychoses. The current study is an institute-based prospective study that employs systematic assessment of the psychiatric morbidity of the elderly outpatients attending geriatric clinic at NIMHANS, Bengaluru.

MATERIALS AND METHODS

The geriatric clinic is an outpatient service run weekly on Saturday afternoons from 2:00 pm to 5:00 pm. The clinic had been operational since early nineties. It stopped functioning and was revived in 1999. The patients are self-referred or referred from various departments and other hospitals. Some patients referred were relatively younger but were considered to be suffering from an ailment best managed in this clinic, namely dementia. This study sample consisted of heterogeneous population of both genders aged >60 years. All the subjects (n = 372) referred to geriatric clinic during the period of September 1999–December 2002 at NIMHANS, Bangalore, were recruited for the study. However, 319 subjects kept the appointment for the detailed interview using the semi-structured pro forma. After registration, sociodemographic data including education, occupation, marital status, age, and sex were collected. The clinical assessment was done using a semi-structured interview that included clinical history, medical history, family history, physical examination, and mental status examination including the Hindi Mental Status Examination [6], Everyday ability scale for India [7], Dementia scale [8], and the Geriatric depression scale [9,10] The interview covered the presenting complaints, detailed history of present illness, psychiatric and medical history, family history of psychiatric and medical disorders, personal history, and premorbid personality assessment. This interview was conducted by psychiatry residents and then evaluated in detail by experienced psychiatrists. Psychiatric diagnoses were made based on ICD-10 criteria. The medical diagnosis was made based on detailed medical history, physical examination, and investigations including hemogram, ESR, renal and liver function tests, thyroid function tests, serum venereal disease research laboratory, lipid profile, collagen vascular workup, X-ray chest, electrocardiography, electroencephalography, enzyme-linked immunosorbent assay for HIV, and imaging of brain (computed tomography scan or magnetic resonance imaging) wherever indicated. The data were analyzed using descriptive statistics.

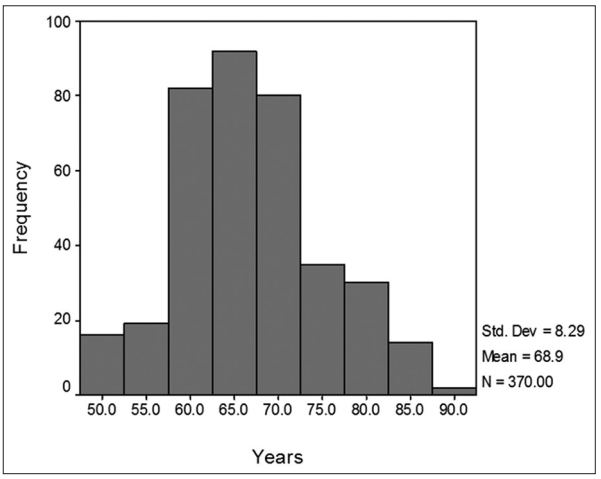

Figure 1: Histogram showing distribution of age of patients who attended the geriatric clinic

RESULTS

More than 300 patients utilized geriatric services over the period of 3 years. Of the patients who consented for the study (n = 319), the mean age at consultation was 69.10 years with standard deviation of 7.24 (73 patients were 75 years and older); males were 163 (51.1%) and females 156 (48.9%). All the patients had a psychiatric diagnosis. Of the total number, 182 (57.1%) patients were from urban background. Analysis of educational status showed that 21 (6.6%) were illiterates, 136 (42.6%) had primary education (5 years of school), and others had at least secondary education (10 years of schooling). The patients were predominantly from the middle socioeconomic status amounting to 157 (49.2%) followed by those from low socioeconomic status 138 (43.3%) [Figure 1].

Onset of illness was insidious in 253 (79.3%) patients and the illness was of progressive course in 252 (79.0%) patients; 41 (12.9%) had static course of illness and the remaining had episodic course of illness. Precipitating factor for the onset of illness was absent in 233 (73.0%) patients. Medical history was absent in 132 (41.4%) patients. Significant medical history was absent in 132 (41.4%) patients. No past psychiatric ailments were reported in 258 (80.9%) patients, 37 (11.6%) patients had previous history of psychosis, and 13 (4.1%) patients had previous history of neurosis. The breakup of the study population concerning various psychiatric diagnoses showed that dementia was the most common diagnosis made (42.4%) [Figure 2]. This was followed by affective disorders (27.3%) and psychoses (18.6%). The medical comorbidity in this sample was high (41.9%). Hypertension was the most common concomitant medical disorder and was present in 61 (19.1%) patients. This was present by diabetes mellitus that was present in 27 (14%) patients. 18 patients had two diagnosable medical disorder and three patients had three

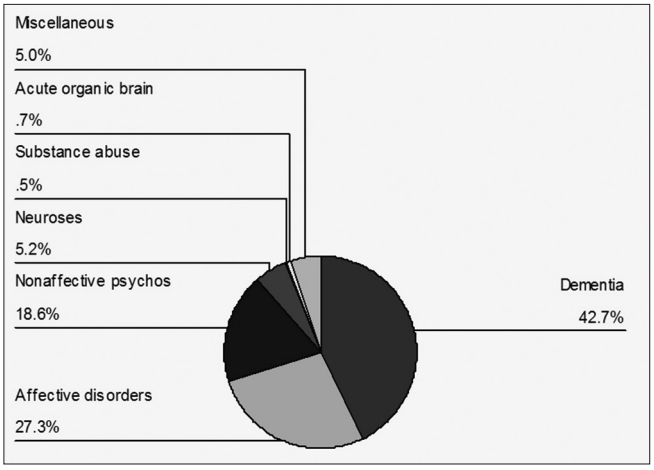

Figure 2: Pie chart showing percentage breakup of psychiatric diagnoses

Table 1: Distribution of the medical diagnoses

Medical diagnoses	Frequency±Percent
NIL	215±58.1
HT	42±11.4
DM	16±4.3
HT+DM	11±3.0
HT+CVA	4±1.1
HT+Cardiovascular disorder	5±1.4
HT+DM+CVA	3±0.8
Parkinson's disease	3±0.8
Seizure disorder	6±1.6
Respiratory disorders	5±1.4
Others	57±15.4
Total	370±100.0

HT: Hypertension, DM: Diabetes mellitus, CVA: Cerebrovascular accident

comorbid medical disorders in addition to the psychiatric disorder.

DISCUSSION

The study was done at a geriatric clinic. The patients recruited for the study are those who were referred specifically for psychiatric problems. Hence, it is not surprising that psychiatric morbidity was 100%. This study found these psychiatric morbidities affecting the geriatric population under study in descending order of proportion, namely dementias, organic psychoses, affective disorder, especially depression, bipolar disorder, dysthymia, and psychosis NOS. Very few patients had neurosis.

The overall pattern of disorders among study population data differs from earlier study done in the same clinic in 1996 [5]. Dementias (43%) were the most common psychiatric diagnosis that was made and it was followed by organic psychoses (22%). These differences could be due to various reasons. The pattern of referrals may have changed. This may be a manifestation of changed role of psychiatrists in the management of behavioral problems in degenerative disorders. Referrals made from other departments and hospitals suggest that other physicians acknowledge the need for psychiatric care in dementias. It is possible that the newer agents improved the number of patients attending the clinic.

The second common psychiatric diagnosis in this study was affective disorders - 27.3%. Among affective disorders, depression constituted 15.7% followed by bipolar disorder 4.9%, dysthymia 3.8%, and mania 3.0%. The earliest, published, community study of a geriatric population found a remarkably high prevalence (34.9%) of affective disorders [11]. Depression was the most common disorder (24.1% >50 years age group) followed by dementia (3.2%). A recent study [3] also found similar trend. From above studies, it appears that dementia is more common in clinical sample, whereas depression is more common in people who live in community. It follows that patients with dementia require more specialized care than those suffering from depression alone. The third common diagnosis in our sample was psychosis 18.5%. Among psychoses, majority were diagnosed as psychosis NOS 14.6% followed by schizophrenia and delusional disorder each accounting for 1.6% and 2.4%, respectively. Similar percentage of psychoses in geriatric patients was found by a hospital-based study at Madurai [12]. In the present study, only 5.4% had neurosis. Among neurosis, anxiety disorder accounted for 1.9%, 2.7% were suffering from persistent somatoform disorder, and only 0.8% had obsessive-compulsive disorder. The community prevalence of these disorders is >5% [13]. Again, these patients probably present less often to a specialized geriatric clinic. Psychiatric illness is seldom an isolated event among elderly people. A minimum of two or three other clinical diagnoses is the rule [14,4]. Geriatric mental illnesses are often associated with physical illness, disability, or handicap. Both community and clinic-based studies reported the presence of physical illnesses in over 40% of their samples [5, 13, 15-17]. Undiagnosed physical illnesses were found to be more common among mentally ill geriatric patients [18] and elderly depressed patients [19]. The most common problems included deficits of vision and hearing, hypertension, diabetes mellitus, cardiovascular disorders, and osteoarthritis. In this study, the associated medical illness was present in 41.9% of these patients, of which hypertension (*per se*) is the predominant medical condition accounting for 11.4%. This was followed by diabetes mellitus (4.3%). Of the remaining medical comorbidities, cerebrovascular diseases and cardiovascular diseases were either associated with hypertension or with diabetes mellitus or both. Respiratory diseases, seizure disorders, and Parkinson's disease individually accounted for <2% each.

Strength of the study is sample size, the comprehensive and detailed nature of the evaluation of psychological as well as

medical conditions in the study subjects. Limitations were that the sample was from a specialty clinic not representing the general population and lack of comparative group.

The fact that nearly two-fifth of this sample showed medical comorbidity states that special care is essential in treating their physical conditions also. This will require a multidisciplinary team to manage patients in geriatric age group. Where these teams are not easily available, the psychiatrist should have a working knowledge in managing common medical comorbidities. Another implication of this finding is that when geriatric patients are managed as inpatients, the ward should have adequate facilities in terms of equipment and trained nursing and support staff to manage psychiatric as well as other medical illnesses. Specialized geriatric wards with adequate monitoring facilities may be able to manage these patients more effectively. Dementia, a degenerative disease, forms the largest group of mental illness in geriatric age group. Medical comorbidity is concurrently seen in patients with the psychiatric morbidity. This extrapolates the requirement of the multidisciplinary approach in managing the patients in geriatric age group. Future studies can be directed to answer the contribution of physical illness to the causation of psychiatric illness.

CONCLUSION

Dementia, a degenerative disease, forms the largest group of mental illness in elderly outpatients attending geriatric clinic. Other organic psychiatric diseases follow this. Medical comorbidity is concurrently seen in patients with the psychiatric morbidity. This extrapolates the requirement of the multidisciplinary approach in managing the patients in geriatric age group.

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