ORIGINAL ARTICLE

A STUDY OF MORBIDITY PROFILE AMONG GERIATRIC POPULATION IN AN URBAN AREA

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HOW TO CITE THIS ARTICLE:
Bhawalkar JS, Dhone AB, Jethani S, Singru S, Jadhav SL, Adanthaya S. "A study of morbidity profile among geriatric population in an urban area". Journal of Evolution of Medical and Dental Sciences 2013; Vol2, Issue 36, September 9; Page: 6963-6967.

ABSTRACT: BACKGROUND: The phenomenon of population ageing is becoming a major concern for all over the world, for both developed and developing countries. In India the size of the geriatrics population, i.e. persons above the age of 60 years is fast growing. There is an emerging need to pay greater attention to ageing-related issues and to promote holistic approach for dealing with the ageing society. **OBJECTIVE**: To assess the morbidity status of the geriatric population at Urban health training center. **METHODS:** Community based cross sectional study was undertaken from1st March 2007 to 31st May 2009 in the urban field practice area of a Medical college in Pune, India. All individuals 60 years and above were included in the study. They were interviewed by trained investigators (Medical and non medical) and the data was collected on a pretested structured proforma. Thereafter a rapid clinical assessment was made by one of the Investigators / trained Medical officer and the findings were recorded. Epi-Info 2002 and Primer of Bio-statistics software package were used for statistical analysis. **RESULTS**: Out of 50592 populations surveyed 3.21% were elderly population. Majority of study subjects belonged to the age group of 60 - 64 years (63.6%). Musculoskeletal disorder was the most common (43.31%), followed by eye problems (37.22%) and hypertension (13.7%).It was observed that 43% elderly population had some health problems but only 8% visit the health facilities. Only 23.22% elderly were taking any medications and the most commonly drug used was anti-inflammatory drugs23.23% (377).
KEY WORDS: Elderly population, Morbidity, Urban health training centre

INTRODUCTION: The elderly are a valuable support for the country.[1]They comprises of about 7-8% of the whole population of one community. Since the expectation of life is also increasing steadily and quality of life is being emphasized more & more in our country, the senior citizen group is getting importance day by day. WHO is also concerned about the health of this group and is promoting the concept of healthy aging throughout the World. [2]Old age is traditionally considered to be synonymous with deteriorating physical and mental health. There are well recognized health problems which accompany old age. Therefore, a thorough examination of the morbidity profiles among the elderly and an evaluation of the related factors are required to improve the delivery of health care to the elderly [3]. In India, the problem of aging nation is a new one, so for this our nation is not prepared fully. There are no separate wards or department to deal with aged persons, so there is an urgent need to focus on this issue.

MATERIALS AND METHODS: It was a community based cross sectional study conducted in urban field practice area of a Medical College in Pune, India from 1st March 2007 to 31st May 2009. The study protocol was approved by the institutional ethical committee. The study population comprised individuals in the geriatric age group, which was defined as 60 years and above.[3] Each individual in

the study was subjected to a personal interview and a clinical and laboratory examination. The information was collected on a pre-tested standard schedule by trained research officers (Medical and non medical). Thereafter a rapid clinical assessment was made by one of the trained Medical officer and the findings were recorded on a structured proforma.

As per WHO criteria for Hypertension, an elderly was classified as hypertensive when the blood pressure was more than or equal to 140/90 mm of Hg. The laboratory tests included hemoglobin estimation by Sahli's method, random blood sugar by an electronic glucometer, urine examination for albumin, and sugar by Uristix and Diastix. An elderly was considered to have diabetes mellitus when the fasting blood sugar was more than or equal to 120 mg % and blood glucose level 2 hours after oral glucose was more than or equal to 180 mg%. All these investigations were conducted at the time of examination or an appointment was given on the following days as per the convenience of the individuals. Patients found to have high random blood sugar (as per the WHO criteria) were asked to get both fasting and postprandial samples done on the next day for confirmation.

The data collected was tabulated in accordance with variables and analyzed. It was fed in MS Excel and analysis of data was done by using the statistical tools in Excel software, EPI-Info 2002 from CDC and Primer of Bio-statistics.

RESULTS: Out of 50592 population surveyed 1623(3.21%) were elderly population. Thus the prevalence of geriatric population in this area was 32.1 per thousand population surveyed. There were more number of females 55.3 %(898) over the males44.7 %(725) as shown in Table 1.The mean age was 66.33 years with SD 6.7. It was found that 920 (56.69%) persons did not have any health problem in past. Many individuals had multiple health problems as shown in Table 2.The major morbidity was joint problem in 703 persons(43.31 %)followed by eye problems in 604(37.22 %) in elderly persons. Other complaints included were generalized weakness, body ache etc. In our study it was observed that 43% population had some health problems but only 8% visit the health facilities as shown in Table 3. 1246 persons (76.77 %) did not give any history of medication. Most commonly drug used were Anti-inflammatory drugs taken by 377 persons (23.23%) followed by antihypertensive drugs 13.67 %(222) out of 1623 persons who were taking medicine for any reason as shown in Table 4.

DISCUSSION: Present study was a community based cross-sectional study undertaken to assess the health status of geriatric population in the urban field practice area of Padmashree Dr. D.Y.Patil Medical College, at Bhosari, Pune.

The prevalence of geriatric population in the study area was 32.1 per thousand population surveyed. In present study it was observed that there was more number of elderly females 55.3 %(N = 898) over the males 44.7 %(N = 725) with sex ratio of 1362.75/1000 males.

Kishore and Garg[3] found 55% of females and 45% of males in the village Anji (Mothi) of Wardha dist. Gurav, et al [4] found 48.02% males and 51.98% females in slum area near Kalwa district Thane. Bhatia, et al [5] out of the total 361 aged persons, 152 were males and 209 were females. In present study number of persons living with their spouses were 68.8% (N=1116), 30.6 %(N=496) were widowed, while 0.7 %(N=11) were separated.

Venkatarao et al[6] (2005) in their study of elderly found that 75%, 32% males and females were married, 23%, 67% males and females were widows, 1% unmarried, divorced and separated. Bhatia, et al [5] in a study among elderly people in Chandigarh found 59% were married, 39.3% were widows/widowers, 0.6% was separated/divorced and only 1.1% was unmarried. Knee joint was most commonly involved= 578(35.6%) Spine involvement was seen in 21(1.2%), Cervical spondylitis in 2(0.1%), Scoliosis in 11(0.7%). Joint involvement in 691(42.58%), Fracture femur-1(0.1%). In 625(38.5%) cases range of joint movement was restricted.

In the study of Prakash et al [7] found that 44% of elderly were having musculoskeletal problems. Females were more affected than males. Arthritis was the most common problem. In the study by Gurav and Kartikeyan [4], prevalence of musculoskeletal disorders were 10.89%. Prevalence of diabetes was 8.7 %(142). In present study the prevalence of hypertension was 18.9% (306). 84(5.17%) new cases of hypertension were detected. Joshi et al [8], found 49% were having hypertension. In the study of Purty et al [9], 26% of the subjects were suffering from hypertension. Shankar et al [11] found 11.25% prevalence of hypertension. Mukesh Kumar et al [10], found 27.9% of study people were having hypertension.

As age increased the prevalence of Diabetes increased. The difference was significant statistically. There was no relationship between per capita income and Diabetes. The difference was not significant statistically. The prevalence of diabetes in males 10.5% and in females it was 7.4%. The difference was statistically significant. The most common cause of diminished vision in developing countries is cataract, which is also found in the present study (42.8%), whereas, among all eye cases cataract is present in 57.93%.Other eye problems were 2.27% which included glaucoma, pterygium, refractive error, watering, trauma, squint etc.

Of the entire eye conditions cataract was the most prevalent condition among elderly [12]. Gurav and Kartikeyan [4], found 32.18% of cataract.

1492(91.9%) elderly don't visit the health facility. 99(6.1%) visit private practitioners followed by municipal corporation hospital 28(1.8%) and urban health training centre 4(0.2%).

CONCLUSION: This study has highlighted a high prevalence of morbidity with common existing medical problem. So there is an urgent need for nationwide efforts to develop various intervention programs for decreasing age-associated morbidity. Life style modification at an earlier stage (childhood; youth) is warranted to prevent onset of chronic diseases, to improve quality of life, and rectification of poor health status .Strengthening of geriatric health care services in accordance with the common existing problems, especially preventive and promotive services in the community are required.

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Age in years	Males	Females	Total
60-65	415(57.2%)	617(68.7%)	1032(63.6%)
65-70	157(21.7%)	133(14.8%)	290(17.9%)
70-75	71(9.8%)	77(8.6%)	148(9.1%)
75-80	40(5.5%)	40(4.5%)	80(4.9%)
80-85	31(4.3%)	22(2.4%)	53(3.3%)
85-90	8(1.1%)	5(0.6%)	13(0.8%)
90-95	3(0.4%)	1(0.1%)	4(0.2%)
>95	0(0.0%)	3(0.3%)	3(0.2%)
Total	725	898	1623

Table 1: Age and gender distribution in elderly population

Morbidity in last 12 months	Number =1623(100%)	95% confidence limits
No health problem	920(56.69%)	54.23% -59.12%
Joint problem	703(43.31%)	40.89%-45.77%
Eye problem	604(37.22%)	34.87% -39.63%
Hypertension	222 (13.7%)	12.06% -15.46%
Diabetes	106 (6.5%)	5.4% -7.8%
Respiratory system	29(1.8%)	1.22% -2.6%
Gastrointestinal system	24 (1.5%)	0.97% -2.22%
Cardiovascular system	15(0.92%)	0.53% -1.55%

Central nervous system	8(0.5%)	0.23% -1.01%
Dental	4(0.2%)	0.079% -0.67%
Anemia	2(0.1%)	0.021% -0.49%
Other complaints	209(12.88%)	11.30% -14.63%

Table 2: The distribution of morbidities (%) diagnosed by a physician

Place of health facility	Frequency
Don't visit any health facility	1492(91.9%)
Private practitioners	99(6.1%)
Municipal corporation hospital	28(1.8%)
Urban health training centre of Dr. D.Y Patil Medical college	4(0.2%)
Total	1623

Table No. 3: Place of treatment preferred by the subjects

Medication for different illnesses	N=1623	95% confidence limit
No medication	1246 (76.77%)	74.64% -78.79%
Anti-inflammatory	377 (23.23%)	21.20%-25.37%
Hypertension	222 (13.67%)	12.06% -15.46%
Diabetes	106 (6.53%)	5.40%-7.87%
CVS	15(0.92%)	0.53%-1.55%
Epilepsy	8 (0.49%)	0.22% -1.01%
Asthma	7(0.43%)	0.189% -0.92%
Thyroid	4(0.25%)	0.79% -0.67%
Leprosy	3(0.18%)	0.047%-0.58%
Antacid	2 (0.12%)	0.021% -0.49%
Tuberculosis	2 (0.12%)	0.02 -0.49%

Table No.4: History of medication

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Date of Submission: 31/08/2013.
Date of Peer Review: 02/09/2013.
Date of Acceptance: 02/09/2013.
Date of Publishing: 05/09/2013