

A Study on Disease Pattern Among Geriatric Population in Tertiary Care Centre

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I. Introduction

As people age, they become more susceptible to disease and disability.⁽¹⁾ Elderly with disease and disability often require more health care services than their healthy counterparts.

By 2025, the number of elderly people is expected to rise more than 1.2 billion with about 840 million of these in developing countries. In India, elderly accounted for 8% of the total population in the year 2010, and is likely to rise to 19% by 2050.⁽²⁾

There are only a handful of studies which have tried to study the type of disease that affects the geriatric population. The aged may suffer from a wide range of communicable and non-communicable diseases that usually help in determining their longevity and wellbeing.⁽³⁾ Hence an attempt has been made to study the disease pattern among geriatric population in a tertiary care center.

II. Materials And Methods

Source Of Data:

The data was included from the medical records in Father Muller Medical College Hospital from Jan 2014 to Dec 2014.

Method

This study included geriatric patients admitted as inpatients in Father Muller Medical College Hospital from Jan 2014 to Dec 2014. Data was collected from the medical records and accordingly all the diagnosis was tabulated and categorized into communicable and non-communicable diseases.

Inclusion Criteria:

- Age \geq 65 year of both sex.

Exclusion Criteria:

- Age $<$ 65 year of both sex

Study Design:

The study is a retrospective study on geriatric patients admitted as inpatients in Father Muller Medical College Hospital from Jan 2014 to Dec 2014.

Data Analysis:

Data was tabulated and analysed by frequency, mean, percentage and standard deviation.

III. Results

A total of 10,929 patients were admitted in the year 2014 in medical wards of Father Muller medical college hospital which was analyzed as mentioned below.

Groups	No. of patients	%
Geriatric	1458	13.3
Others	9471	86.7
Total	10929	100.0

Table 1: Group Distribution

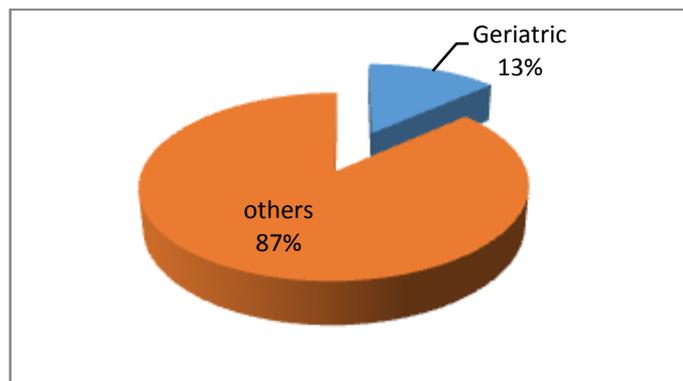


Figure 1: Group Distribution

Geriatric patients accounted for 13% (1,458) of the admitted patients in the year 2014.

Sex Distribution Of Cases

Sex distribution of cases shows no significant difference between male and female population.

Sex distribution of cases	No. of patients	%
Males	738	51
Females	720	49
Total	1458	100

Table 2: Sex Distribution of cases

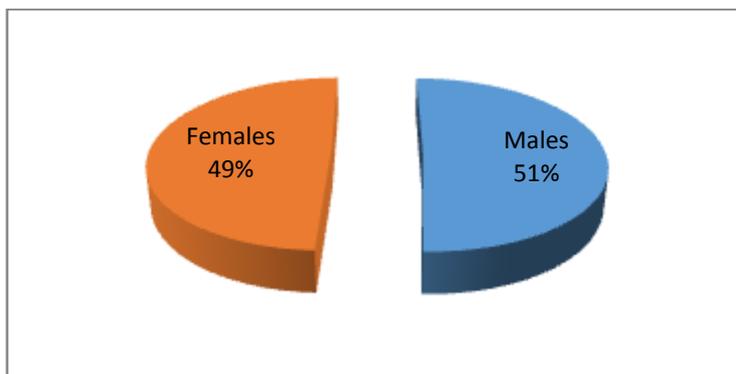


Figure 2: Sex Distribution of cases

Pattern Of Disease Among Geriatric Patients

Pattern of disease is differentiated into communicable and non-communicable diseases as mentioned below. The total number of illnesses among 1,458 subjects were 3,742 of which communicable diseases were 859 and non-communicable were 2,883.

Table 3: Pattern of non-communicable diseases

NON-COMMUNICABLE DISEASE			
DESEASE PATTERN	MALE	FEMALE	TOTAL
TYPE 2 DM	180(24.9%)	288(40%)	468(32.1%)
OTHER ENDOCRINE DISORDERS	7(0.95%)	35(4.86%)	42(2.88%)
RESPIRATORY DISORDERS	90(12.2%)	36(5%)	126(8.64%)
NEUROLOGICAL DISORDERS	234(31.71%)	36(5%)	270(8.64%)
DYSELECTROLEMIA	36(4.88%)	37(5.14%)	73(5.01%)
LOCOMOTOR/JOINT DISEASES	40(5.42%)	35(4.86%)	75(5.14%)
HYPERTENSION	340(46.07%)	421(58.47%)	761(52.19%)
CARDIOVASCULAR DISEASE	231(31.30%)	274(38.06%)	505(34.64%)
SKIN DISORDERS	18(2.44%)	27(3.75%)	45(3.09%)
GI DISORDERS	47(6.37%)	39(5.42%)	86(5.90%)

CANCER	20(2.71%)	11(1.53%)	31(2.13%)
GENITOURINARY	90(12.20%)	108(15%)	198(13.58%)
PSYCHIATRIC ILLNESS	18(2.44%)	35(4.86%)	53(3.64%)
ANEMIA	43(5.83%)	54(7.50%)	97(6.65%)
CKD	35(4.74%)	18(2.50%)	53(3.64%)
TOTAL	1429(193.63%)	1454(201.94%)	2883(197.74%)

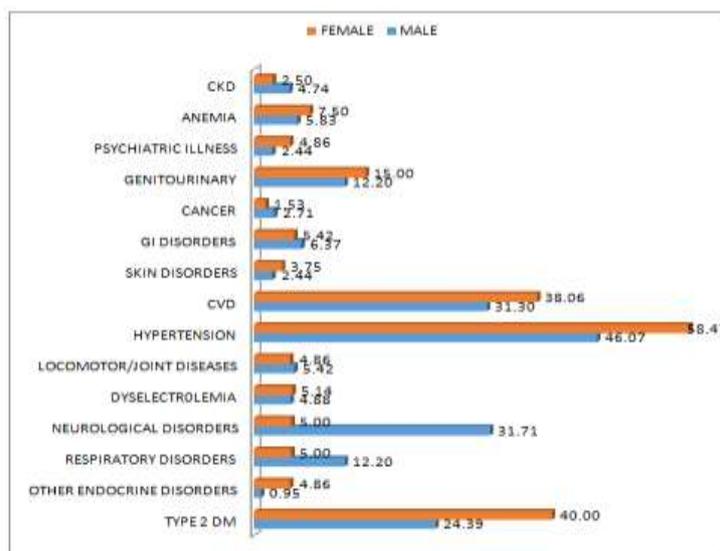


Figure 3: Pattern of non-communicable diseases

Commonest non-communicable diseases were hypertension (52%), Cardiovascular diseases (34%), type 2 diabetes mellitus (32%), neurological diseases (19%), genitourinary (14%) and respiratory problems (9%). Other morbidities seen were anemia, locomotor/joint diseases, electrolyte imbalance, chronic kidney disease, psychiatric illnesses, skin, other endocrine disorders and cancer.

Hypertension was the commonest non-communicable morbidity seen in both male and female population.

Table 4: Pattern of communicable diseases

COMMUNICABLE DISEASE	MALE	FEMALE	TOTAL
DESEASE PATTERN			
LOWER RESPIRATORY TRACT INFECTION	324 (43.90%)	216 (30%)	540 (37.04%)
ACUTE GASTROENTERITIS	36 (4.88%)	44 (6.11%)	80 (5.49%)
MALARIA	20 (2.71%)	25 (3.47%)	45 (3.09%)
SKIN INFECTION	15 (2.03%)	31 (4.31%)	46 (3.16%)
DENGUE FEVER	17 (2.30%)	37 (5.14%)	54 (3.70%)
RETROVIRAL DISEASE	4 (0.54%)	2 (0.28%)	6 (0.41%)
UPPER RESPIRATORY TRACT INFECTION	27 (3.66%)	54 (7.50%)	81 (5.56%)
LEPTOSPIROSIS	0 (0%)	7 (0.97%)	7 (0.48%)
TOTAL	443 (60.03%)	416 (57.78%)	859 (58.92%)

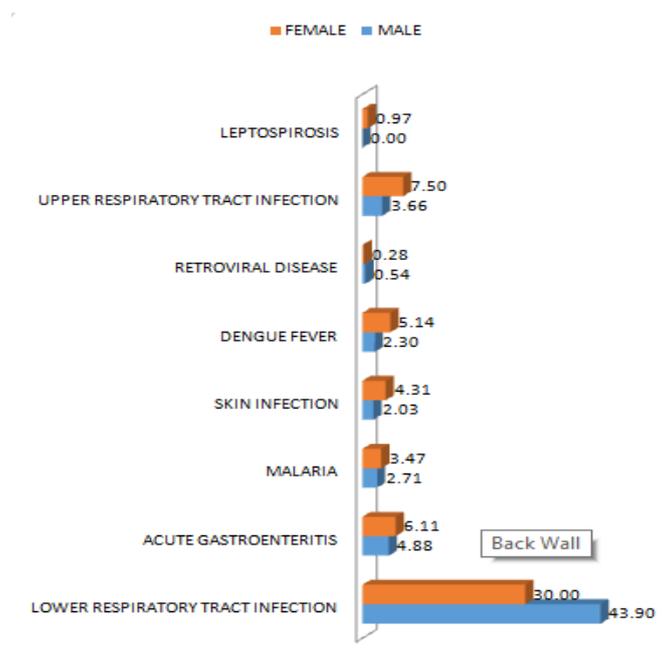


Figure4: Pattern of communicable diseases

Lower respiratory tract infection (37%) was the leading communicable disease followed by acute gastroenteritis (6%), upper respiratory tract infection (5.5%), dengue fever (3.7%) and malaria (3.1%). Lower respiratory tract infection was also the commonest communicable disease among both male and female subjects.

Overall leading morbidity among total geriatric subjects was hypertension.

IV. Discussion

The wellbeing of older persons has been mandated in Article 41 of the Constitution of India, which directs that the state shall within the limits of its economic capacity and development, make effective provision for securing the right to public assistance in old age.

In this study it was found that the study population was suffering from either one or more than one ailments. This study showed that non-communicable disease burden was more responsible for admission of elderly patient as compared communicable diseases. However there was an opposite trend in a study done in Nigeria where communicable disease was the most common disease burden among elderly population.⁽⁴⁾

This study showed that lower respiratory infection and hypertension was the most common morbidity among communicable and non-communicable diseases respectively. However results of a study done in Tamil Nadu showed that joint pain/joint stiffness and chronic cough was the most common morbidity among communicable and non-communicable diseases respectively.⁽⁵⁾

However in the study done in Western Australia cardiovascular disease and cancers accounted for maximum disease burden among both male and female geriatric population⁽⁶⁾

In the present study hypertension had the highest impact on female disease burden (50.47%) in comparison to the study done in Netherlands where musculoskeletal disease accounted for highest disease burden among female geriatrics.⁽⁷⁾

The rise in morbidity among the elderly urges the proportionate increase in effective geriatric health care services in accordance with the common existing problems in the community. Preventive, curative and rehabilitative programs for this group are urgently required. Hence elderly population should receive more priority as they are vulnerable to various disease and disability.⁽⁸⁾

V. Conclusion

Elderly patients utilized tertiary care facility predominantly for non-communicable diseases. Even though communicable disease is quite rampant in elderly owing to lowered immunity, the statistics reveal otherwise either because of low incidence of infection as they are mostly confined to home or they approach private clinics and other health care providers.

Throwing light on disease pattern of this population will enable proper allocation of resources as well as to spread awareness and preventive measures among masses since majority of the section of population is illiterate in Indian scenario.

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