

Pattern of Diseases in Geriatric Patients Admitted at Sir Ganga Ram Hospital, Lahore

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The provision of specialised services for persons aged 60 years and above is still lacking in our country. This study was carried out to analyse the pattern of acute & chronic diseases in the geriatric patients admitted at a teaching hospital, and to stress on the importance of the field of geriatrics in the teaching hospitals of Pakistan. Patients falling in the geriatric age group, i.e. 60 years and above admitted consecutively at the various department of Sir Ganga Ram Hospital, Lahore, were collected for the study. The pattern of diseases was studied in 200 patients. A proforma was used for the collection of data, which included patient's personal profile, history, examination, summary of the investigations carried out and the final diagnosis. The patients under study fell in the age range of 60-100 years, 96 females and 104 males. Maximum patients were admitted in the Medical wards, followed by Surgery, Ophthalmology, Obstetrics and Gynaecology, Orthopaedics, ENT and Psychiatry. Most of the patients had multiple problems and required a multidisciplinary approach. The diseases seen in the study group were: cataract (51.5%), coronary artery disease (30.5%), diabetes mellitus (31%), hypertension (29.5%), cerebrovascular disease (7%), benign prostatic hyperplasia (35.6%), osteoarthritis (34%) malignancy (10.5%), chronic obstructive pulmonary disease (7.5%), fractures (4%), liver disease (4%) and psychiatric illnesses (33%). It was concluded that the elderly suffer from a broad spectrum of diseases, which though cause much morbidity, are preventable and amenable to treatment. Hence special attention to such problems and the field of Geriatrics is essential at all levels.

Key words: Gerontology, geriatrics, elderly, diseases

"He whom We bring unto old age, We reverse him in creation (making him go back to weakness after strength). Have ye then no sense?" (Al-Quran; Yasin: 68)

Recent medical literature defines "aged" as a person from 65 through 79 years of age. For a person older than 79 years the term "aged 80 and over" is used¹.

Unfortunately, not much work has been carried out by the hospitals in our country regarding the medical services to our aged population². With this in mind, the present study was designed focusing on the geriatric patients in a major teaching hospital in a big city of Pakistan. The objectives were to study the pattern of diseases, both acute & chronic, in the admitted geriatric patients, to introduce the field of geriatrics in the teaching hospitals of Pakistan and to attract the attention of our physicians to the medical problems faced by our geriatric population.

Material and methods

We conducted an observational analytical study to find out the proportionate rate of various medical problems in geriatric patients admitted at Sir Ganga Ram Hospital, Lahore. This is a 750 bedded teaching hospital located in the centre of the city, draining areas of lower to middle socio-economic class. 200 cases admitted consecutively at the various departments of the hospital were collected for the study, starting from 1st August 2001. All the indoor departments of the hospital, i.e. Internal Medicine, General Surgery, Obstetrics and Gynaecology, Orthopaedics, Ophthalmology, Otorhinolaryngology and Psychiatry were included in the study.

The age criteria for patients recruited for the study was taken as 60 years and above, i.e. our present retirement age. In the developed countries, the current definition of geriatrics includes people aged 65 years and above, in contrast to the initial age criterion of 60 years at the time Geriatric Medicine was introduced. The reason for including in our study patients less than 65 but more than 60 years was threefold:

1. In developing countries like Pakistan, the proportion of population 60 years & above is still not >5%³.
2. The life expectancy at birth does not always reach 40 years of age in the developing countries³.
3. The field of geriatrics is still in its initial immature stages in our country, hence the older criteria of defining old age are being followed⁴.

An informed consent was taken from the patients included in the study. They were interviewed, meticulously examined, their investigations reviewed, and diagnoses established. The data was entered in a proforma designed for the subject patients. Finally the compiled results were subjected to analysis through SPSS package.

Results

A total of 47,166 patients presented at the hospital during the month of August 2001, i.e., 20,214 (42.9%) in the outdoor and 26,952 (57.1%) in the emergency department of Sir Ganga Ram Hospital. Out of these 1,123 (2.39%) were admitted. 344 (30.6%) patients out of those admitted were 60 years or more. The first 200 patients who were admitted (17.8%) were included in the study.

The patients fell in the age range of 60-100 years, average being 68.25 years (Graph I). The patients were subdivided into three age groups:

- 60-69 years: 122(61%)
- 70-79 years: 56(28%)
- More than 80 years: 22(11%)

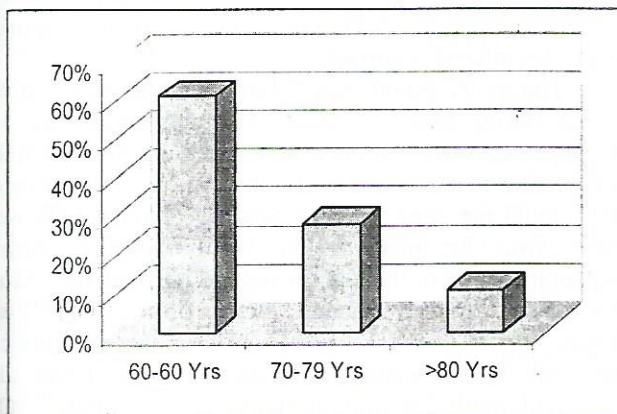
Thus the maximum geriatric patients fell in the younger age group of 60-69 years, the proportion decreasing with advancing age. Graph II shows that there was a slight predominance of males i.e. 104 (52%) over the females who were 96 (48%). The admission of the patients in the various departments was as shown in Graph III. The predominant diseases observed in the admitted patients were as shown in Table 1. A majority 181 (90.5%) of the admitted geriatric patients had multiple problems.

Out of 200 patients admitted, 17 (8.5%) died, 18(9%) left against medical advice, and 165(82.5%) were discharged (Table 2)

Table 1. Diseases in the admitted patients

Disease	Number of patients			Total
	60-69 years	70-79 years	>80 years	
Cataract	45	36	22	103
Diabetes Mellitus	42	16	4	62
Coronary artery disease	31	20	10	61
Hypertension	34	19	6	59
Infections	31	18	14	63
Stroke	9	4	1	14
COPD	10	4	1	15
Osteoarthritis	9	8	1	18
BPH	15	14	8	37
Gallstones	8	3		11
Hernia	10	4	2	16
Uterovaginal prolapse		1	2	3
Malignant disorders	10	9	2	21
Hepatic disease	5	2	1	8
Psychiatric diseases	15	24	27	66
Parkinsonism	2	2	2	6
Bone Fractures	4	4		8

Graph 1. Age pattern



Graph 2 Sex distribution of patients according to age groups

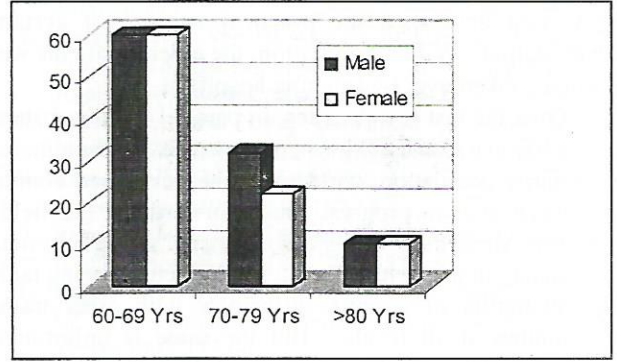


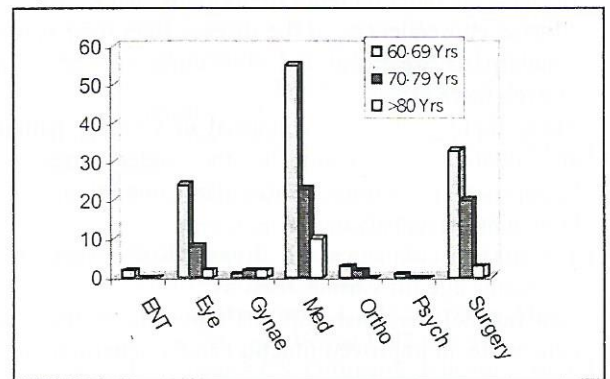
Table 2. Outcome of patients under study (n=200)

	Outcome			Total admitted
	Discharged	Died	LAMA*	
Female	73	1	13	9
Male	92	7	5	1
ENT ward	2	-	-	2
Eye Ward	34	1	3	3
Gynaecology	7	-	-	7
Medicine	68	1	7	9
Orthopaedics	3	1	1	5
Psychiatry	1	-	-	1
Private	3	-	-	3
Ward**	47	-	7	5
Surgery				4

*Left against medical advice

**1 patients were under care of surgical and 1 patient under medical department

Graph 3. Admission in various ward according to age groups



Discussion

The roots of the medical care for the old can be traced from the ancient Greek and Byzantine medicine. The analysis of the original medical and historical texts of the Byzantine period (324-1453 AD) written in Greek language prove that the problems of old age occupied physicians even at that time⁵. Dr. Ignatz Natcher, an Austrian physician, coined the term "Geriatrics" in 1909⁶. However, it was in 1935 that a British doctor, Marjory Warren, working in

USA, first developed the practical concept of geriatric rehabilitation⁶. With her initiation, the elderly patients were gradually taken over by teaching hospitals.

Over the last few decades, in parallel to the substantial rise in life expectancy at birth, and a corresponding increase in geriatric population world over, the developed countries have been able to progress much forwards in the field of Geriatric Medicine^{7,8,9,10,11,12}, with many young physicians specialising in the field¹³. Besides this, focus is being laid on the integration of geriatric principles with other training programmes at all levels.¹⁴ But the same is unfortunately untrue for the less developed ones like Pakistan, where facilities for geriatric care are still lacking.¹⁵ According to a survey conducted by Pakistan Medical Research Council, the prevalence of age-related chronic disease in our country is substantial¹⁶. Gerontology is distinct from adult medicine in many ways:

1. Certain diseases tend to have their highest prevalence in old age¹⁷.
2. The mode of presentation of certain disease is different in the biologically old as compared to the young. Such nonspecific symptoms are often referred to as the I's of Geriatric Medicine: Intellectual impairment, Immobility, Instability, Incontinence, Iatrogenic drug reactions, Impaired vision and hearing, inanition, isolation, insomnia and impecunity^{17,18}.
3. Disease in older patients often presents at an earlier stage due to the impaired compensatory mechanisms^{19,20}.
4. The simultaneous presentation of many disorders, often of minor nature in themselves, may have an additive effect on the patient's condition^{21,22}.
5. Because the older patients are more likely to suffer from adverse consequences of the disease than their younger counterparts, treatment and prevention may be equally or even more effective^{19,22-28}.
6. Many findings that are abnormal in younger patients are relatively common in the older ones e.g. bacteriuria, premature ventricular contractions, low bone mineral density etc¹⁹.
7. The pharmacokinetics of drugs also change with increasing age for various reasons^{29,30,31}.
8. Last but not the least, the goals of care in the older patient are an improved function and a better quality of life in contrast to the younger patients, for whom cure of disease and prolongation of life are of paramount importance²².

All these special features point to the significance of introduction and development of Geriatric Medicine as a separate speciality.

Our study at Sir Ganga Ram Hospital showed that the geriatric patients constituted a significant proportion (30.63%) of patients admitted in the hospital, thus emphasising that this group of community calls for special consideration. One very important point, which should be

stressed upon, is that the pattern of the various diseases that have been studied in the admitted patients does not depict the prevalence of these diseases in the community on the whole. Being a hospital based study, it only represents the rate of admission of elderly patients suffering from these problems in a teaching hospital.

Our patients fell in the age range of 60-100 years, mean being 68.3 years. These results are consistent with those of a community survey carried out in the peri-urban areas of Karachi, where the average age of the elders was 65.8 +/- 8.2 years².

There was an overall predominance of males. This in contrast to the various reports that say that as life expectancy is more in females by 4.1 to 13.1 years worldwide, more elderly females are seen in the community than elderly males³². This can be explained by the observation that, in general, more males present independently in the outdoor and emergency departments as compared to females, women being, in a majority of cases, dependent on the male members of the family to bring them to hospitals in our country. Moreover, many females have been observed to refuse admission because of domestic responsibilities. Hence less number of female admissions does not indicate lower prevalence of disease among women in the community.

Majority of the patients, i.e. 181(90.5%) had more than one problem. It has been reported that a higher proportion of the over-75s are under treatment for multiple chronic diseases³³. The results of our study are highly in favour of this observation and the multiplicity of problems was observed to increase with advancing age.

The maximum number of patients (45%) was admitted in the Medical wards, followed by those in surgical wards (27%) and Ophthalmology (19%); a smaller proportion was admitted in the other departments. (Graph III) It can be inferred from these results that patients present maximally with medical problems. It is worth repeating at this point that the overlap between problems of different nature was widespread, many patients requiring multi-disciplinary approach.

The study group was followed up to find out the course during hospital stay. 82.5% were discharged and 8.5% passed away. An interesting observation was that 9% left against medical advice; out of these 72% were females, 45% could not cope with the financial burden, 17% were taken away by uncooperative family members despite explaining to them the significance of hospital stay. Much has been written about elder mistreatment and neglect^{34,35,36,37,38} and according to Lachs, these factors can not only be associated with shorter survival but also increased morbidity and mortality in the elderly³⁶. Our observations in this regard further elaborated the importance of readily and easily available geriatric services for our already frail elderly citizens. Perhaps the significance of the field of Geriatric Medicine can best be

summed up by the slogan of the British Geriatric Society: "adding life to years," that have been added to life.

Recommendations

With the substantially growing number of elderly persons in the country, physicians should stress more on the specific problems faced by our geriatric population. Moreover better facilities for the geriatric care in terms of availability and economic feasibility should be provided at least at the teaching hospitals in our country. Separate units for geriatric care with specially trained doctors, nurses, physiotherapists and social workers should be developed. Also, efforts for establishment of Geriatric programmes for postgraduate training should be initiated at the teaching hospitals, which can later be implemented at community level.

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