

SYMPTOMATOLOGY IN THE INTERNAL MEDICINE WARDS; ANALYSIS OF PATTERN OF REFERRAL IN TERTIARY CARE HOSPITAL

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ABSTRACT: Objective: This study had been conducted to highlight the pattern of presenting complaints of the patients admitted in internal medicine wards of a tertiary care hospital. **Design:** This observational study was conducted in internal medicine wards of Alnoor Specialist Hospital, Makkah, Saudi Arabia, from 31-08-2004 to 14-10-2004. **Methodology:** The data had been collected retrospectively from the files and consisted of demography, wards allocations, duration of stay, and frequency as well as duration of symptoms at the time of presentation. Data was analyzed by SPSS version 16 and $p < 0.05$ was considered as significant. **Results:** Out of total 103 subjects, majority 21 (20.4%) belonged to age group 65-74 years. Saudis 75 (73%) as well as males 59 (58%) predominated. Saudis were older and stayed longer than non-saudis (55.5 vs. 45.8 years; $p < 0.05$) and (9.3 vs. 6.3 days; $p < 0.05$), respectively. Most frequent symptom was fever while 41.2% symptoms had history of 2-7 days. Only 3.9% patients presented with >6 types of complaints. Diseases of the circulatory system were more prominent (16.5%). More than two third patients improved (75.7%) while 9.7% died. **Conclusion:** Maximum patients were within 65 to 74 yrs of age. Saudis were older and stayed longer than non-Saudis. Fever was the commonest presenting complaint. Minimum patients presented with >6 complaints and diseases of the circulatory system predominated. A few died but most of them improved.

Key words: Symptoms, Medical wards, Patients.

INTRODUCTION

Symptom presentation is reflected by their production and expression as well as perception of its frequency, intensity and distress. It can multiply and may provoke other symptoms. Subjects demography, disease and individual factors are the precursors to the symptoms experience and consequently place impact on mood status, quality of life, progression, and survival¹. A disorder in one organ system may lead to symptoms in another, especially one compromised by preexisting disease may lead to atypical disease presentation especially in older patients.

These organ systems are often the brain, the lower urinary tract, or the cardiovascular system, or musculoskeletal system, a limited number of presenting symptoms predominate that is confusion, falling, incontinence, and functional decline irrespective of the underlying disease².

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In case of advance illness symptoms are more likely to occur in cluster. The ability to assess and manage this cluster properly, shrinks the use of polypharmacy, systemic toxicities, and makes patient's quality of life less liable to deterioration³. Symptom relief in patients close to death is an important and challenging part of most doctors, lives. It is difficult sometimes to accept that the battle for life has effectively been lost, and the life sustaining measures are becoming progressively more unsuccessful and increasingly more burdensome⁴. Managing the symptoms of advanced disease at the end of life is one of the most challenging aspects of medicine for most clinicians⁵.

Our study focused upon the pattern of symptoms and final discharging diagnoses of the patients admitted to the internal medicine wards of a tertiary care referral teaching unit, Al-Noor Specialist Hospital, Makkah, Saudi Arabia.

METHODOLOGY

The data of this observational study had been collected from patients' files who got admissions in internal medicine wards during 45 days ranging from 15-07-1425 to 30-08-1425 Hijri, corresponding to 31ST August to 14th October 2004 in a tertiary care referral teaching unit, Alnoor Specialist Hospital, Makkah, Saudi Arabia. Subjects were divided into age groups (13-24, 25-34, 35-44, 45-54, 55-64, 65-74, >74), nationality (Saudi/Non-Saudi) and gender (Male/female). The patients who had been kept in different wards due to shortage of beds in medical wards or transferred to other wards due to change in patients' disease category or level of severity were also considered. The data consisted of demography, wards allocations, duration of stay, and frequency as well as duration of symptoms at the time of presentation. Study also described the type as well as number of complaints per patient. Duration of stay had been counted from the date of admission to internal medical ward to the date of final discharge or death from the hospital either the patient had been transferred to other wards due to worsening of condition or changing in disease category. Patients' final discharging diagnosis had been classified under International Classification for

Diagnosis (ICD-10)⁶. Final outcome of patients was illustrated.

Al-Noor Specialist Hospital is a 550-bedded referral teaching hospital delivering tertiary care throughout the Makkah region of Saudi Arabia for more than 18 years. The 64(12.3%) bedded internal Medicine Ward comprised of subunits that is neurology, dermatology, hematology-oncology, endocrinology, respiratory, Gastroenterology, and General Medicine.

The data had been analyzed on SPSS 16.0 version. Numerical data was subjected to descriptive analysis that is mean+standard deviation(SD) and range. Categorical data was analyzed as frequency, percentage and cumulative percentage. Parametric data was subjected to Students' t-Test. Two tailed p-value was considered significant if <0.05.

RESULTS

The total 103 patients had fulfilled the criteria of study. Most of the patients 21(20.4%) were belonged to age group 65-74yrs. Mean age of all patients was 52.9±21.9 (standard deviation) SD while that of Saudis and non-Saudis was 55.5±22.6SD (range=85) and 45.8±18.4SD (range=61) (p<0.05), respectively. Similarly mean age of males and female was 51.7±22.8SD (range=85) and 54.5±20.9SD (range=72) (p>0.05), respectively. Saudis 75(73%) as well as males 61(59%) predominated. Table-I. Mostly patients were kept in medical ward while 4(3.9%) were shifted to intensive care unit, 2(1.9%) in coronary care units and 1(1%) to private ward. 94(91.3%) discharged before 14 days while remaining stayed longer.

However, mean length of stay (LOS) of patients above 50years was 9.75days while that of below 50years was 7.1days (p<0.05). On the other hand, mean LOS of Saudis was 9.3days while Non-Saudis had 6.3days (p<0.05). A total of 36 types of different presenting complaints were encountered and had frequency of 296 with mean 8.22. Fever was most frequently 46(15.5%) seen in patients followed by cough 27(9.1%). Table II

Table-I. Demographic Data						
Age Groups in Years	Gender, n(%)		Nationality, n (%)		N(%)	Cumulative %
	Male	Female	Saudi	Non Saudi		
13-24	12(19.7)	5(11.9)	12(16)	5(17.9)	17(16.5)	16.5
25-34	3(4.9)	4(9.5)	3(4)	4(14.3)	7(6.8)	23.3
35-44	4(6.6)	8(19)	7(9.3)	5(17.9)	12(11.7)	35.0
45-54	11(18)	3(7.1)	9(12)	5(17.9)	14(13.6)	48.5
55-64	10(16.4)	6(14.3)	12(16)	4(14.3)	16(15.5)	64.1
65-74	12(19.7)	9(21.4)	16(21.3)	5(17.9)	21(20.4)	84.5
>74	9(14.8)	7(16.7)	16(21.3)	0	16(15.5)	100.0
Total	61(100)	42(100)	75(100)	28(100)	103(100)	

Table-II. Frequency of Presenting Complains				
Serial #	Types of presenting Complains	Frequency	%	Cumulative
1	Fever	46	15.5	15.5
2	Cough with or without sputum	27	9.1	24.7
3	Nausea, Vomiting and/or diarrhea	24	8.1	32.8
4	Pain Abdomen	23	7.8	40.5
5	Body or body part weakness e.g. limb or facial muscle	21	7.1	47.6
6	Shortness of breath	20	6.8	54.4
7	Altered level of consciousness	18	6.1	60.5
8	Decreased appetite	17	5.7	66.2
9	Easy fatigability	14	4.7	70.9
10	Body ache	11	3.7	74.7
11	Chest pain	8	2.7	77.4
12	Speech difficulty	6	2.0	79.4
13	Joint pain and/or swelling	6	2.0	81.4
14	Constipation	5	1.7	83.1
15	Bloody stool and/or bloody vomiting	5	1.7	84.8
16	Convulsions and/or jerk movements	5	1.7	86.5
17	Burning micturation	5	1.7	88.2
18	Headache	4	1.4	89.5
19	Throat pain	4	1.4	90.9
20	Yellow discoloration of sclera and/or body	3	1.0	91.9
21	Palpitation and sweating	3	1.0	92.9
22	Complaints presented \leq twice (n=15)	21	7.1	100
	Total	296	100	

Complaints having duration up to one day were 64(21.2%) while 122(41.2%) had 2-7days and remaining had more than 07 days. Duration was not mentioned for 47(16%) of complaints. Only, 4 (3.8%) patients presented with 6 types of complaints followed by 7(6.7%) patients who had 5 complaints. Patients, 18(17.4%), 29(28.1%), 33(32%) and 12(11.6%) had 4, 3, 2 & 1 complaints

respectively. The mean number of complaints presented by subjects was 2.87 with 95% CI=2.87± 0.12(mean±s.e.; n=103).

Regarding diagnosis, maximum patients 17(16.5%) was classified under circulatory system, followed by respiratory system 16(15.5%). Table III

Table-III. Subjects Final (Discharging) Diagnosis									
ICD 10	Diagnosis	Subjects Age Groups in Years, (%)							N(%)
		13-24	25-34	35-44	45-54	55-64	65-74	>74	
100-199	Diseases of the Circulatory System	11.8	14.3	8.3	21.4	18.8	19.0	18.8	17(16.5)
A00-B99	Certain Infectious and Parasitic Disease	5.9	14.3	16.7	7.1	6.2	33.3	18.8	16(15.5)
N00-N99	Diseases of the Genitourinary System	47.1	28.6	-	7.1	6.2	-	-	12(11.7)
M00-M9	Disease of the Musculoskeletal System and Connective Tissue	5.9	-	16.7	14.3	18.8	14.3	-	11(10.7)
R00-R99	Symptoms, Signs and Abdominal clinical and laboratory findings	11.8	-	-	-	18.8	9.5	6.2	8 (7.8)
G00-G99	Disease of the Nervous System	-	-	8.3	14.3	18.8	-	12.5	8 (7.8)
Z00-Z99	Factors influencing health Status and contact with health Services	5.9	28.6%	25.0	7.1	-	-	-	7(6.8)
F00-F99	Mental, Behavioral Disorders	-	-	-	7.1	6.2	9.5	12.5	6(5.8)
J00-J99	Diseases of the Respiratory System	-	-	-	7.1	6.2	-	12.5	4(3.9)
D50-D89	Diseases of Blood and Blood-forming Organs and certain disorders involving the immune mechanism	-	-	8.3	7.1	-	-	6.2	3(2.9)
E00-E99	Endocrine, Nutritional and metabolic Diseases	-	-	-	-	-	9.5	6.2	3(2.9)
C00-C99	Neoplasm	5.9	-	-	-	-	-	6.2	2(1.9)
K00-K99	Diseases of the Digestive System	-	-	16.7	-	-	-	-	2 (1.9)
Q00-Q99, Vol-Y98	Diagnosis ≤1%	5.9	14.3	-	7.1	-	4.8	-	4(3.9)
Total, n(%)		17(100)	7(100)	12(100)	14(100)	16(100)	21(100)	16(100)	103(100)

Out of total subjects, 78(75.7%) was discharged while 1(1%) absconded. Discharged against medical advice

counted 14(13.6%) and 10(9.7%) died.

DISCUSSION

Forty years ago, up to 88% of all primary care diagnosis were made on history and clinical examination, and even 20 years ago up to 75% of all diagnosis in a general medicine were made using these tools. Although these percentages may be even lower in recent years⁷. In this era of defensive medicine and easy availability of sophisticated investigations, physicians have come to depend more and more on various tests rather their own clinical intelligence⁸. Towards the goal of comfort and quality of life, symptoms management has its importance and requires constant reassessment of the patient. Before launching a medication programme, each set of symptoms should be assessed by history, physical examination, and laboratory tests⁹.

The great progress that has been made in medical knowledge in the last fifty years has led to the birth of various new medical specialties and, consequently, to the institution within hospital of specialized departments and services. A little at a time, General Medicine has lost responsibility for almost all the main sectors of medical pathology. Today there is a tendency to consider general medicine departments as a general hospital projection of every day medical practice¹⁰. The department of general internal medicine is devoted to the evaluation of patients with autoimmune system disease, multiorganic disorders or presenting non specific symptoms such as chronic fatigue, unexplained weight loss or fever of unknown origin¹¹.

Physical symptoms other than pain often contribute to suffering near the end of life. In addition to pain the most common symptoms in the terminal stages of illness such as cancer or AIDS are fatigue, anorexia, cachexia, nausea, vomiting, constipation, delirium and dyspnea. Fatigue is the most common symptoms at the end of the life¹². Although nausea, vomiting, and retching have plagued mankind since antiquity¹³. Symptoms experience must include both the occurrence and distress associated with the symptoms. To adequately assess symptom experience, obtaining information from patient about occurrence and the distress of the symptom experience

is essential¹⁴.

Our study was the reflection of the symptoms of the total patients admitted to medical ward during the 45 days. We can compare it with the almost similar studies of Raveh,¹⁵ Delgado,¹⁶ Escolar,¹⁷ Matorras,¹⁸ Ogan,¹⁹ and Osaufor,²⁰ The study group as well as period of all these were greater than ours and all were retrospective expect that of Raveh¹⁵ which was prospective one. Some studies had predominant males¹⁵⁻¹⁷ like ours but one has female predominance¹⁹. The mean age of our study was greater than those of Ogan¹⁹ and Osaufor²⁰, while lesser than those of Raveh¹⁵ and Escolar¹⁷. The standard deviation as well as rang of age of our study was also different from these studies. Delgado,s study had greater median age than ours. In our study most common presenting complaint was fever contrary to other¹⁶. Diseases of circulatory system were more frequent as found in the studies of Escolar¹⁷ and Lim¹⁸. We exclusively studied the duration of symptoms while presented and number of complaints per person which could hardly be found in any other study.

CONCLUSIONS

Maximum patients were between 65-74yrs of age. Majority discharged before fourteen days, while patients above 50years had greater tendency to stay longer than youngsters. Most frequent complaint was fever. Minimum patients had majority of symptoms. More than half of the presenting complaints had up to 7 days history. Diseases of the circulatory system predominated. A few died but most of them improved.

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PREVIOUS RELATED STUDIES

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