

PATTERN OF DISEASES IN MEDICAL WARDS OF A TERTIARY CARE HOSPITAL OF SOUTH PUNJAB, PAKISTAN.

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ABSTRACT

Objective:- To assess the frequency and pattern of diseases in a medical wards at tertiary care hospital of Southern Punjab. **Study design:-** Cross-sectional study. **Setting:-**Medical Units of Nishtar Hospital Multan. **Patients and methods:-** Patients admitted at different Medical Units of Nishtar Hospital, Multan were included in the study. Specially designed proforma was filled, data were collected and analysed on SPSS-20. **Results:-** Total admitted patients in medical units of Nishtar Hospital, Multan from May, 2016 to May, 2017 were 660. Out of these 660, 390 (59.1%) were males and 270 (40.9%) were females. Age ranges from 12-70 and above. Mean age was 43.88 years with standard deviation 18.87 years. Mostly (63.5%) patients were from home district. Chief complaints were uncontrolled diabetes mellitus (17.6%), fever (13.6%), weakness of one-half of body (10%), uncontrolled hypertension (9.7%), cough and fever (8.5%), yellowness of eyes (5.8%) and vomiting (4.2%). Most common disease was diabetes mellitus (19.1%) followed by hypertension (17.9%), cerebrovascular accidents (10%), chronic liver diseases (9.7%), acute hepatitis (8.9%), pneumonia (7.4%), meningitis (5.9%), chronic renal failure (3.2%), acid peptic disease (2%) and acute myeloid leukemia (1.5%). **Conclusion:-** Study revealed diabetes mellitus, hypertension, ischemic heart disease (IHD) and Cerebro-vascular accident (CVA) are most common diseases. Important measure to control diabetes mellitus and hypertension must be adopted. More detailed and large scale study are needed on pattern of diseases at tertiary care hospital so that disease pattern are known and on these basis strategies for control of diseases and patients care can be derived.

Keywords:- Chief complaints, Disease pattern, Disease burden.

Introduction

Health management and health planning division need basic data to address various health issues. Identification of the problem, its magnitude and burden are the basic requirements to develop further strategies on health issues. The pattern of diseases vary according to gender, age groups, geographic and racial differences. Different environmental and social factors also play a major role in emergence of various diseases. Many studies point that hepatitis is the major health problem in Pakistan¹⁻³, while others say respiratory problems are increasing day by day⁴, still other studies points that diabetes mellitus, hypertension and ischemic heart disease (IHD) are major burden^{5,6}.

Nishtar Hospital, Multan is a referral and tertiary care hospital in south Punjab, Pakistan. The present study was designed to see the pattern of diseases in admitted patients in Medical wards, at Nishtar Hospital, Multan.

Subjects and methods

From May 2016 to May 2017, total of 660 patients with various medical problems were admitted in Medical wards of Nishtar Hospital, Multan. A proforma was designed and patient's age, occupation, gender, chief complaints and diagnosis were recorded. The data were processed and analyzed on SPSS-20.

Results

Out of these 660 patients, 390 (59.1%) were males and 270 (40.9%) were females (Table-1). Mean age was 43.88 ± 18.87 while age distribution is given in the table 2. Most of these patients (63.5 %) were from home district. Occupation distribution was also noted and is given in table-3.

The patients were admitted with different presenting complaints. Chief complaints were uncontrolled diabetes mellitus (17.6%), fever (13.6%), weakness of one-half of body (10.0%), uncontrolled hypertension (9.7%), cough and fever (8.5%), yellowness of eyes (5.8%) and vomiting (4.2%) (Table-4).

Further analysis revealed that the most common disease was diabetes mellitus (19.1%) followed by hypertension (17.9%), cerebrovascular accident (10.0%), chronic liver diseases (9.7%), acute hepatitis (8.9%), pneumonia (7.4%), meningitis (5.9%), chronic renal failure (3.2%), acid peptic disease (2%) and acute myeloid leukemia (1.5%) (table No. 5).

Table-1 Gender distribution

			(n = 660)
Sex	Frequency	Percentage	
Male	390	59.1	
Female	270	40.9	
Total	660	100.0	

Table-2 Age distribution

				(n = 660)
S. No	Age groups (Years)	Frequency	Percentage	
1.	12-20	101	15.3	
2.	21-30	103	15.6	
3.	31-40	91	13.8	
4.	41-50	140	21.2	
5.	51-60	121	18.4	
6.	61-70	62	09.4	
7.	> 70	42	06.3	

Table-3 Distribution of occupation

(n = 660)

S. No	Occupation	Frequency	Percentage
1.	Businessmen	41	6.2
2.	Teachers	8	1.2
3.	Households	256	38.8
4.	Shop keepers	37	5.6
5	Farmers	114	17.3
6.	Labourers	92	13.9
7.	Government employees	22	3.3
8.	Students	46	7.0
9.	Private job Holders	11	1.7
10.	Drivers	6	0.9
11.	Nil	27	4.1

Table-4 Chief Complaints

(n = 660)

S. No	Chief Complaints	Frequency	Percentage
1.	Uncontrolled diabetes mellitus	116	17.6
2	Fever	90	13.6
3	Weakness of one half of body	66	10.0
4	Uncontrolled hypertension	64	9.7
5	Cough and fever	56	8.5
6	Yellowness of eye	38	5.8
7	Vomiting	28	4.2
8	Others	202	30.6

Table-5 Pattern of diseases

(n = 660)

S. No	Name of Disease	Frequency	Percentage
1	Diabetes mellitus	126	19.1
2	Hypertension	118	17.9
3	Cerebrovascular accident	66	10.0
4	Chronic liver disease	64	9.7
5	Acute Hepatitis	59	8.9
6	Pneumonia	49	7.4
7	Meningitis	39	5.9
8	Chronic Renal failure	21	3.2
9	Acid peptic disease	13	2.0
10	Acute Myeloid leukaemia	10	1.5
11	Other diseases	95	14.4

Discussion

The pattern of diseases varies according to geographical areas, racial differences, age groups and gender. Occupational, environmental and genetic differences also affect the prevalence of disease. Very few local studies are available on this topic. Only three studies have described, in detail, pattern of diseases at various hospitals. Various studies conducted have given variable results. In National Health Interview Surveys 1999-2001 and National Health and Nutrition Examination Survey 2002 from USA have given the prevalence of diabetes mellitus 8.7% in people of age group of 20-59 years and 18.3% in people of age group of 60 years and above⁷. Shera et al showed the prevalence of diabetes mellitus as 16.2% in men and 11.7% in women⁸. Another study from Pakistan has also given the frequency of diabetes mellitus as 12%⁴. The figure of Shera et al⁸ is nearer to our study while the study by Jawaid et al⁴ is a little bit low. The difference from Jawaid et al is because their study has been conducted in surgical unit while we have conducted study at medical floor, as diabetes is more of the medical problem rather than surgical, so the figure is higher in our study. The hypertension was 17.9% in our study while the other study from UK reported by Standing P et al⁹ has pointed out the prevalence of hypertension as 18.7% and a study by Jawaid et al has given the prevalence of 10.8%. National Health Survey of Pakistan (NHSP) in 1998 revealed that 18% of the population above the age of 15 years and 33% above the 45 years suffer from hypertension¹⁰. The figures of our study are comparable with that of NHSP as well as with that of Standing P et al. The next common disease was acute myocardial infarction (12.1%). The study by Ahmad et al¹¹ has given the prevalence of ischemic heart disease as 14.5%. The figure is bit higher in the study by Ahmad et al because they have collected the data from cardiology unit where more pool of IHD cases is suspected, while we have collected the data from medical units. The frequency of cerebrovascular accidents (CVA), in our study is 10% while Ahmad et al reported the frequency of 6%. Our figure is bit higher, the reason may be environmental differences. Our area is a hot area and temperature in summer season may go up to 48 C° and most of the patients suffer from dehydration. Dehydration is one of the important factors in CVA particularly cerebral infection. Jabeen et al have reported that diabetes as well as CVA due to complication of hypertension is a major problem of our society⁵. Chronic liver disease is an important cause of morbidity and mortality in our population. In our study chronic liver disease frequency is 9.7% while in an other study conducted at Tertiary care hospital Peshawar by Ahmad et al the frequency is 6%. In Pakistan various studies have documented carrier rate of HBV to be 6-7% and hepatitis C is 4.7%¹²⁻¹³. Recently Government of the Punjab has established various medical camps to know the prevalence of hepatitis. The subjects tested for HBsAg and anti HCV by ELISA revealed HBsAg positively in 15.3% of the public and anti-HCV positively in 16.6% of the public. In present study the frequency of acute hepatitis is 8.9%. The low results in our study are because we have not collected the cases from other units, otherwise cumulative figures would have been much higher. We can assess that the hepatic problem is much higher than reported in various studies. Higher and large scale studies in general population throughout the Pakistan are required to know the exact nature and magnitude of this hepatic problem. The frequency of pneumonia in our study is 7.4% while study of Ahmad et al¹¹ have given the frequency of pneumonia to be 3%. The figures are low because they have excluded the cases of post pneumonic pleural effusion from their study. They have categorized the cases of pleural effusion as separate entity. More high frequency of pneumonia is expected from our study if we would have included the cases of pneumonia from pulmonology unit. The frequency of meningitis from our study is

5.9% while the study by Ahmad et al have reported meningitis from neurosurgical unit as 1%, our figure is higher because the meningitis is mainly reported in medical unit rather than neurosurgical unit, so the figure is less in the study by Ahmad et al. Chronic renal failure in our study is 3.2% while other study from Pakistan pointed out the prevalence of 4.8%. Multan is a very hot area, renal stone is common disease in this part of Pakistan, chronic renal failure is very common here due to renal stones. The low frequency in our study is because we have got separate nephrology and urology units. Patients of chronic renal failure mainly pool to these units so the expected frequency of renal failure is quite high in this area. The frequency of acid peptic disease is 2% in our study while other have reported from Pakistan the frequency of 3%. Both the figures are similar.

Conclusion

The present study on disease burden has revealed that diabetes mellitus, hypertension, IHD and CVA are the major diseases. The diabetes mellitus and hypertension are the core diseases which can results in complication such as chronic renal failure, IHD and CVA. These diseases are potentially controllable as compared to chronic liver disease and chronic renal failure. IHD, CVA and renal failure risks will be definitely reduced if we can control hypertension and diabetes mellitus. According to WHO estimates that disability and mortality as a result of IHD and CVA will rank first and fourth respectively as causes of global disease burden in next 20 years, alarming that important measures must be taken for the control of diabetes mellitus and hypertension. There is need to do more detailed studies on burden of diseases at tertiary care hospital so that data base can be generated by which we can access the magnitude of diseases so that further health strategies regarding control of diseases and patient care can be derived.

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