

PATTERN OF MEDICAL DISORDERS IN ADULTS IN DISTRICT LAKKI MARWAT, PAKISTAN

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ABSTRACT

Background: The objective of this study was to determine the pattern of various diseases /problems with which the patients present to a medical specialist in District Lakki Marwat.

Material & Methods: A total of 862 patients ranging in age between 15 and above from various parts of district Lakki Marwat, presenting to a weekly based clinic were studied from March, 2006 to June 2006. A printed proforma containing details of history, findings of clinical examination and reports of investigations was filled for each patient. After completion of the study period proformas were grouped in a systematic way and were studied to achieve the objective.

Results: Overall females dominated the picture. The highest number of patients fell in the group of cardiovascular diseases with a total of 222 (25.75%) patients followed by disorders of gastrointestinal system in 146 (16.93%) patients. Respiratory problems were observed in 126 (14.61%) patients. Sixty patients (6.96%) presented with Rheumatological problems, 40 (4.64%) with problems related to CNS, 34 (3.94%) with endocrine diseases, 16 (1.85%) with Uro-genital disorders, 12 (1.39%) with infectious disorders and 4 (0.46%) with metabolic problems. A group named miscellaneous comprised of 144 (16.74%) patients who had nonspecific symptoms like headache, giddiness, body-aches and weakness with no positive findings on clinical examination. Fifty eight patients (6.72%) had both diabetes mellitus and hypertension.

Conclusion: The number of female patients presenting to physician are more than the male patients in District Lakki Marwat. Hypertension is the commonest disorder and majority is unaware of their high blood pressure.

Key words: Pattern, Medical disorders, Lakki Marwat, Hypertension.

INTRODUCTION

Almost all human suffer a disease at some time in their life. A disease may involve a particular organ /system or it may involve many organs /systems simultaneously. With the advances in scientific research, practice of medicine has turned into evidence based. A disease common a few years ago may not be common today and vice versa. In developing countries, including Pakistan medical research is on the rise. Most of the research in Pakistan is conducted in big cities but from backward districts the contribution is less.

Cardiovascular diseases are very common and they comprise the most prevalent serious disorders in the developed nations. American heart association has reported that in the year 2002, 62 million Americans; 32 million females and 30 million males (i.e. more than one in five persons) had a cardiovascular disease. The prevalence of cardiovascular diseases especially coronary Artery disease is rising alarmingly in Pakistan and India as nutritional and infectious causes of death decline in these regions.¹

Cardiovascular disorders have high mortality in developing countries than developed ones and affect people of all age group.² Although the incidence is reducing in UK³ and other developed countries, it is increasing in most Eastern European and developing countries. In UK 1.2 million people are estimated to have suffered myocardial infarction.^{4,5}

Diabetes mellitus is a major cardiovascular risk factor. Unfortunately most of our patients present late and usually with complications. In the year 1998, 135 million people worldwide had diabetes mellitus which increased to 170 million in the year 2003 and is expected to be 300 million by the year 2025. According to WHO Pakistan ranked 8th in 1995, with 4.3 million diabetic patients and is expected to rank number 4 with 14.5 million patients suffering from diabetes in the year 2025.⁶

Heart burn, flatulence and epigastric pain are common symptoms in our population. It is not cost effective to investigate all such patients thoroughly; instead a good history and clinical examination should differentiate patients who need further investigations. Dyspepsia is a broad term covering all

these symptoms, which is defined by a working team as pain or discomfort centered in the upper abdomen.⁷ Another common disease in our setup is bronchial asthma which has caused much anxiety in our patients because of lack of awareness about the true nature of the disease. Patients with asthma usually present with shortness of breath and cough. Although some studies have demonstrated that asthma prevalence among the elderly is equal to that in the younger age groups⁹ it is acknowledged that asthma in the elderly is under diagnosed.⁹ It is also more difficult to diagnose because lung function testing is limited in elderly patients¹⁰ and this group is less likely to complain about asthma symptoms and have poor perception of shortness of breath than younger patients.¹¹

Pain abdomen, diarrhea and constipation are other common symptoms with which our patients present. Most of the time the diagnosis comes to be irritable bowel syndrome (IBS). Patients with IBS present to both gastroenterologists and primary care physicians. It is estimated that more than 50% of patients with IBS who seek medical attention have underlying depression, anxiety or somatization.⁷

The purpose of this study was to know the pattern of diseases which bring the patients to physicians.

MATERIAL AND METHODS

This descriptive study was performed at a weekly based medical clinic in District Lakki Marwat. On each Sunday from 8:30 AM to 5.00 PM around, 50 plus patients were examined. Thus a total of 862 patients were included in the study, between first

March 2006 and 30th June 2006. A printed proforma containing details of the patient's problems, clinical findings, reports of investigations and final diagnosis was filled for each patient.

Routine laboratory investigations, ECG and chest x-ray were performed at the clinic and when needed patients were referred to higher centers for further investigations. Patients above the age 15 having medical problems were included in the study while excluded from the study were patients with age less than 15 years, those with surgical problems and those who were lost for follow up in cases where it was important for the diagnosis.

RESULTS

A total of 862 patients were studied. The system wise distribution is given in table-1 and sex distribution in table-2.

Two hundred and twenty-two patients had problems related to cardiovascular system (CVS). 160 patients had hypertension (56 male & 104 females), 34 patients had coronary heart disease (12 male & 22 females), 14 patients had CCF (8 male & 6 females), 10 had rheumatic heart disease (4 male & 6 females) and 2 each male patients had infective endocarditis and pericardial effusion. Of 160 hypertensive patients 48 were known hypertensives and 112 were diagnosed for the first time. They were unaware of their hypertension.

One hundred and forty six patients presented with features suggestive of gastrointestinal system involvement. 96 patients had dyspeptic symptoms (30 male & 66 females), 10 had gastroenteritis (8 male & 2 females), 32 had irritable bowel syndrome

Table-1: Systematic distribution of the presentations.

System /Problem	Male	Female	Total	Percentage
CVS	84	138	222	25.75
GIT	62	84	146	16.94
Respiratory	56	70	126	14.61
Miscellaneous	64	80	144	16.74
Rheumatological	22	38	60	6.96
HTN+DM Combined	24	34	58	6.72
CNS	20	20	40	4.64
Endocrine	18	16	34	3.94
Uro-genital	10	6	16	1.85
Infectious	4	8	12	1.39
Metabolic	2	2	4	0.46
T O T A L	366	496	862	100%

Table-2: Sex distribution of patients.

Sex	Number of patients	Percentage
Male	366	42.46%
Female	496	57.54%
Total	862	100%

(20 male & 12 females), 4 had cirrhosis liver (2 male & 2 females), 4 had inflammatory bowel disease (2 male & 2 females).

One hundred and twenty-six patients had respiratory problems. Sixty-six presented with cough (32 male & 34 females). Ten had pulmonary TB, 8 pneumonias and 48 upper respiratory tract infections. Sixty patients (24 male & 36 females) had cough and breathlessness and were suffering from bronchial asthma and chronic obstructive airway disease (COPD).

Patients with miscellaneous problems were 144 (64 male & 80 females). Of these 90 patients (37 male & 53 females) had nonspecific symptoms like headache, giddiness, body-aches, burning feet, weakness, lethargy in whom no positive sign could be found neither a final diagnosis could be made. 48 patients in this group had anxiety /depression (2 male & 27 females), 2 each male patients had B.P.H, infertility and history of bee stings.

Sixty patients (22 male & 38 females) had Rheumatological problems. Rheumatoid arthritis was diagnosed in 4 patients (2 male & 2 females), Gout in 2 (males) and low back pain in 48 patients (16 male & 32 females). Osteoarthritis was found in 6 (2 male & 4 females).

Combined DM & HTN was found in 58 patients (24 male & 34 females).

Forty patients (20 male & 20 females) had problems related to nervous system involvement. Stroke was diagnosed in 18 patients (11 male & 7 females). Epilepsy was diagnosed in 4 patients (3 male & 1 female). Freidrich ataxia in 2 (1 male & 1 female), Facial palsy in 4 (3 male & 1 female), parkinsonism in two (1 male & 1 female) and migraine in 10 patients (1 male & 9 females).

Thirty four patients (18 male & 16 females) had endocrine disorders. Diabetes mellitus was diagnosis in 29 patients (17 male & 12 females), Cushing syndrome in 1 patient (female) and hyperthyroidism in 4 patients (1 male & 3 females).

Uro-genital diseases were diagnosed in 16 patients (10 male & 6 females). Eight patients had urinary tract infection (4 male & 4 females), 2 had

BPH (males), 2 had stones (both males) and 4 had chronic renal failure (2 male & 2 females).

Twelve patients had infective problems (4 male & 8 females) Malaria was diagnosed in 6 patients (2 male & 4 females), enteric fever in 2 patients (both females), tetanus in 2 patients (both males) and tuberculous lymphadenitis in 2 patients (both females).

Four patients had metabolic disorders (2 male & 2 females). Osteomalacia diagnosed in 2 patients (females) and hyperparathyroidism in 2 (both males).

DISCUSSION

A total of 862 (366 males & 496 females) cases were studied. Females represented 57.54% of the study. Hypertension was the commonest disorder found in this district. It was found in 160 patients alone, and in 58 patients it was found in combination with diabetes mellitus. Of these 218 patients 63 knew that they had hypertension (48 from hypertension alone group, 15 from hypertension + DM group), 155 patients were unaware of their high BP (112 from hypertension alone group, 43 from hypertension + DM group). Though the number of patients who were unaware of their high BP was high but it is not exceptional to this district. Even in USA, out of 50 million total adult hypertensive patients 30% are unaware of their elevated BP, 17 % are aware but untreated, 29% are being treated but have not controlled their BP and only 25% are well controlled.¹²

Hypertension affects about 17.9% of adults (15 years & above) in Pakistan, of which 5.5 million are men and 5.3 million are women and less than 3% have controlled BP.¹³ These are figures of National Health Survey of Pakistan (NHSP) which also reported that 22% of the Urban Pakistani population over the age of 15 years and a 3rd of those aged 45 years and over had hypertension.¹³ Pappas et al compared the results from the National Health Survey of Pakistan 1990-94 (n= 18,315) and United States Health & Nutrition Examination Survey III (n= 31,311); 2.4% of Pakistani males had controlled BP as opposed to 23% of US males and 4.85% of Pakistani females had controlled BP as opposed to 35% of US females.¹⁴

Thirty four patients in our study had coronary heart diseases (12 males & 22 females). Coronary heart disease is more common in males as male gender is by itself a risk factor for such disorders.¹⁵ In our study the number of female patients having coronary heart disease are more than males. Beside other explanations one possible reason could be that male patients with such symptoms visit specialist centers in Peshawar while it is preferred here to show females locally. Coronary artery disease is the number one killer in USA and each minute an American

dies of this disease. It is likely to become the most common cause of death worldwide by 2020.¹⁶ The age adjusted incidence of acute myocardial infarction is 192/1000 male population and 19/1000 female population of Pakistan.¹⁷

Ninety six patients had dyspeptic symptoms. Seven patients had peptic ulcer disease and the rest were due to non-ulcer dyspepsia and few due to GERD. Dyspepsia occurs in 25 % of the adult population and accounts for 3% of general medical office visits.⁷ Dyspepsia is not a single disease. It is caused by peptic ulcer disease in 15-25 % of cases. GERD is present in up to 20% of patients and gastric cancer in 1% while most common cause of chronic dyspepsia is functional or non ulcer dyspepsia.⁷

Sixty patients in this study were suffering from Bronchial Asthma and COPD. Although strict diagnosis is not always easy between the two, history and clinical examination and available reports of investigations favored Asthma in 43 patients. Overall data on the prevalence of asthma in adults are more controversial.^{16,18} Diagnosis of asthma in older patients is often confounded by similar symptoms from COPD, cardiac failure and normal age related changes in respiratory functions.¹⁹

In this study 29 patients had diabetes mellitus alone and in 58 cases it was found in association with hypertension. So a total of 87 patients represented diabetes mellitus. Thirty were already diagnosed cases and in the rest diagnosis was made for the first time.

Survey from various rural areas of Pakistan suggest the prevalence of DM to be between 11-17% and total glucose intolerance (DM + Impaired glucose tolerance) as high as 25% in those aged 25 years or over.^{20,21,22}

Forty eight patients had low back pain. Thirty two patients were females. The increased frequency in females is probably due to over work and wrong posture adopted during various domestic routine works. LBP is experienced at some time by up to 80% of the population. The differential diagnosis is broad and a precise diagnosis can not be made in majority of cases.²³

Thirty two patients had irritable bowel syndrome, of which twelve were females. The international literature reports that two third of patients with IBS are women.⁷ In our study the number of female patients compared to male were less, the explanation could not be known. Over all up to 20% of the adult population have symptoms compatible with the diagnosis of IBS but most never seek medical attention.⁷

Out of 12 patients from infectious disease group, Malaria was diagnosed from 6 patients. This

figure is small considering the prevalence of infections in our setup. Possible explanation is that such patients are treated at a primary care level and they rarely present to specialists.

Anxiety and depressive illnesses were found in 48 patients 21 patients were male and 27 were females. Depression is extremely common with up to 30% of primary care patients having depressive symptoms.²⁴ In our study 6 female patients and one male had conversion disorder. Conversion disorder tends to start in early adulthood and usually follows stress.^{25,26} Majority of patients with conversion disorders are women, mostly young, married and illiterate.²⁷

Thus our study correlates mostly with the existing literature. Other than social and cultural background of the population of this district, the reasons for differences in case of few disorders from the available literature could not be known.

CONCLUSION

Compared to males, more female patients present to physicians in District Lakki Marwat. Cardiovascular diseases are the commonest health problems in this district, followed by gastrointestinal and respiratory diseases. Among cardiovascular disorders hypertension is the commonest diagnosis and majority of the patients is unaware of their hypertension.

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