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Original Article

Disease Pattern at Medicine Outpatient Department of A Tertiary Care Hospital

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Abstract

Background : *Bangladesh, like many transitional nations, is straddling with the demographic and epidemiological transition. There is a critical need to improve public health in this region. But number of studies & representative data on the prevalence of diseases is inadequate. The objective of this study is to detect type & frequency of diseases among patients attending in medicine outpatient department (OPD) to improve the quality of healthcare.*

Materials and methods: *This observational study was conducted at the outpatient department (OPD) of Chattogram Maa-O-Shishu Hospital Medical College from February to April 2018. Purposive sampling was used. Total 500 patients were included. Details were recorded in a data form and diagnosis was made on the basis of history, physical examination and necessary laboratory investigations. Data were collected and analyzed using the SPSS Version 20.*

Results : *Total 500 patients were evaluated. Majority were female (61.2%). Highest number of patients i.e. 299 (59.4%) belonged to the age group of 16–35 years. Majority 405 (81%) of the patients in our study were from surrounding locality (Urban). The most common diseases was DM affecting 55(11%). HTN was 2nd common disease 51(10.2%). During this study we found gastrointestinal system was the most common affected organ system.*

Conclusion: *Disease pattern study is very important to focus top problems, so that we can prepare ourselves to fight against them.*

Key words : Disease pattern; NCD; Locality.

INTRODUCTION

In South Asia, which has one quarter of the global population, but where about half of the population live below the poverty line and has limited access to health care. There are 11 countries in the WHO SEAR-Bangladesh, Bhutan, Democratic People's Republic of Korea (DPRK) India, Indonesia, the Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste. The member countries of the WHO SEAR bear a disproportionate burden of disease, with 25% of the world's population and 30% of the global disease burden[1]. One-third of SEAR residents are living in urban areas[3].

Like many low income countries around the world, Bangladesh is in the midst of an epidemiologic transition where the burden of disease is shifting from a disease profile dominated by infectious diseases, under-nutrition and conditions of childbirth to one increasingly characterized by Non-communicable Chronic Diseases (NCDs)[5–6]. In the World Health Organization's (WHO) South-East Asia Region, NCDs-which include heart disease, stroke, cancer, chronic respiratory diseases and diabetes-are estimated to account for half of annual mortality (54%) and burden of

disease (47%)[7–8]. Bangladesh is facing both communicable and non communicable diseases; NCDs are responsible for half of annual mortality (51%) and almost half of the burden of disease[9]. In 2004, NCDs accounted for 61%, with the remainder from communicable diseases and maternal and child health (MCH) issues. Of the total burden, CVD accounts for 13.4%, mental health 11.2%, cancer 3.9%, respiratory diseases 4.0%, diabetes 1.2%, and injuries 10.7% (U.S Census Bureau, 2013).

Improving health around the world today is an important social objective, improving health can have equally large indirect beneficial effect through accelerating economic growth.

Main objective of present study is to focus disease pattern among patients attending at Medicine out patient department of Tertiary Hospital of Chattogram region.

MATERIALS AND METHODS

This observational study was conducted at the outpatient department (OPD) of a Private Tertiary Care Hospital. Duration of study was 3 months from February to April 2018. Prior permission and ethical clearance for the study was obtained from concerned authorities. All patients attended at OPD during that period were included in the study. Duplication was carefully avoided.

Data collection was done by researcher herself. Purposive sampling technique was used. Details were recorded in a pretested checklist and diagnosis was made on the basis of history, physical examination and necessary laboratory investigations.

Data were managed by professional data manager. SPSS version 20 was used for data analysis.

RESULTS

A total 500 patient were included in this study. Table I shows the sociodemographic variables of respondents. Majority of the patients i.e 306 (61.2%) in our study were females and male to female ratio was found out to be 1:1.5. With regard to age distribution of the patients, it was found that highest number of patients i.e 299 (59.4%) belonged to the age group of 16– 35 years. Majority i.e 405 (81%) of the patients in our study were from surrounding locality (Urban). An enquiry was made about the marital status of the patients and it was found out that most of the patients i.e 349 (69.8%) were married. More than half of the patients were unemployed and 118(23.6%) patients were involved in private sector. Students were 50(10%) 44(8.8%) were businessman16(3.2%) were employed in government sector.

Figure 1 shows The pattern of diseases among the patients according to affected organ system. Gastrointestinal system was the most common organ seytem 101(20.2%). 22(4.4%) were diagnosed as a PUD, Acute gastroenteritis were 19(3.8%) Oral ulcer were 6(1.2%), apthus ulcer was most common. Acute viral hepatitis were 10(2%). Irritable bowel syndrome was 5(1%). NAFLD were 7(1.4%) asymptomatic cholilithiasis was 2(0.4%). Total 30 cases were undiagnosed.

Endrocrine syetem was 2nd common affected organ system. DM were 55(11%), among them uncontrolled DM 22(4.4%) 15(3%) were on drug with stable glycemic status, new onset DM were 7(1.4%) IGT 5(1%) GDM were 6(1.2%) Hypothyroidism were 18(3.6%). One case was transient thyroiditis, Hyperthyroidism were 3(0.6%) among them one case was toxic mutinoduler goitre, only goitre with euthyroid status was 4 (0.8%).

Among the infectious diseases , we observed the most common was UTI 39(7.8%). Suspected viral fever were 18(3.6%) Enteric fever were 4(0.8%) Wound infection were 3 in number. HZV infection was 2 case. We found 2 cases of cellulites. TB is common in our country. Total 13 (2.6%) TB were diagnosed, PTB were 6(1.2%) among them sputum smear positive was 2 cases. Relapse PTB were 2 (0.4%), lymph node TB were 2 (0.4%),Disseminated TB were 2 (0.4%), potts disease was one in number.

Affected respiratory system was 78(15.6%) in our study. We observed URTI were 39(7.8%) among them sinusitis were 6(1.2%) tonsillitis were 4(0.8%). Pneumonia were 7(1.4%). Pleural effusion was one case, Asthma were 16(3.2%), COPD were 14(2.8%). 2(0.4%) case was corpulmonalae.

In our study, disease of the cardiovascular system were 70(14%) HTN were 51(10.6%). Among them newly developed HTN were 10(2%) gestational HTN were 3(0.6%). Total IHD were 8(1.6%) dyslipidaemia were 9(1.8%). We noticed one CRHD & one CHD(ASD).

Diseases of musculoskeletal system was 60(12%) in our study. Mechanical LBP were 14(2.8%) Osteoarthritis (Knee joint mainly) 9(1.8%) Rheumatoid arthritis were 4(0.8%) reactive arthritis was 1(0.2%) gout was 3(0.6%) among them 1 case was gout with nodule, rest 2 cases were joint pain & swelling with hyperurecaemia. We found SLE one case. Undifferentiated multiple joint pain were 7(1.4%) mechanical chest pain were 17, PLID were 4(0.8%). We obsereved total 32 neurological cases. Peripheral vertigo were 13(2.6%) tension headache were 9(1.8%) migraine were 3 (0.6%) Parkinson's diseases was 3(0.6%) stroke were 2 (0.4%) Bells palsy 2(0.4%).

Less common Polycythaemia rubra vara, breast abscess, mastalgia, urticaria, drug reaction, varicose vein in lower limb, depressive illness.

Table II shows the most common Diseases observed in our study. Top 20 diseases are included. Out of 500 patients, DM was the most common diseases seen, affecting 55(11%) of patients.

Table I : Demographic variables among the respondents

Sociodemographic variables	No .of patients	Percentage	(%)
Gender	Male	194	38.8
	Female	306	61.2
Age	16-30	299	59.8
	31-45	110	22
	46-60	68	13.6
	61-75	19	3.8
	76-90	4	0.8
Residence	Rural	95	19
	Urban	405	81
Occupation	Unemployed		
	Mostly housewife	272	54.4
	Private job	118	23.6
	Business	44	8.8
	Govt.sector	16	3.2
	Student	50	10

Source : Hospital records, 2018

Table II : Disease pattern among the respondents

Disease	No.of patients (%)
DM	55(11%)
HTN	51(10.2%)
Urinary tract infection	39(7.8%)
Upper respiratory tract infection	39(7.8%)
Peptic ulcer disease	22(4.4%)
Acute gastroenteritis	19(3.8%)
Hypothyroidism	18(3.6%)
Viral fever	18(3.6%)
Bronchial asthma	16(3.2%)
COPD	14(2.8%)
Anxiety disorder	14(2.8%)
LBP(Mechanical)	14(2.8%)
Iron deficiency anaemia	14(2.8%)
TB	13(2.6%)
Peripheral vertigo	13(2.6%)
Acute viral hepatitis	1O(2%)
Osteoarthritis	9(1.8%)
Tension headach	9(1.8%)
IHD	8(1.6%)
Pneumonia	7(1.4%)

Source: Hospital records, 2018

Note : Top 20 diseases only included.

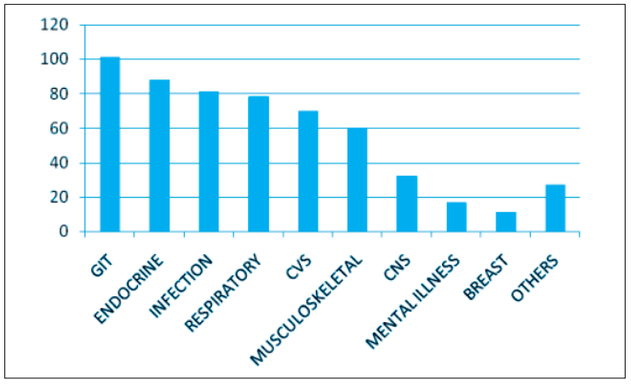

Figure 1 : Pattern of systemic diseases (n=500)

DISCUSSION

A total of 500 patients were included in this study. Majority were female 306(61.2%). This trend is also observed in other studies[10,11,12]. According to age distribution around 409(81.8%) patients in our study belonged to the 16-45 age group. Patients attending in medicine OPD come mainly from city due to our hospital located in centre of the city, also come from neighbouring districts. Though more than fifty percent patients were unemployed, but 118(23.6%) were involved in private sector.

In the present study, DM was found to be most frequently observed disorder 55 (11%). Among them 22 patients visited at OPD due to uncontrolled DM. We found 51(10.2%) of total patients suffered from HTN. Majority were middle age. This high frequency of both HTN & DM are related to peoples' daily lifestyle include tobacco use, alcohol abuse, unhealthy diet, physical inactivity, Obesity.

The pooled prevalence estimates obtained for T2DM and HTN were similar to a previous study that is, 5.9% and 15.1%, respectively[13]. (T2DM has been better studied in Bangladesh compared to the other immediate CVD risk factors. The pooled prevalence from these studies is significantly lower than the recent nationwide survey in adults (10%)[14]. The rural prevalence is slightly higher than that in South India and Pakistan (Less than 5%) but it is considerably higher than China (3%). The differences in prevalence among various populations become less prominent when those are estimated in urban settings (Sri Lanka 6%–14%, South India ~12%).

Indian migrants in Mauritius, Fiji, Singapore and Tanzania, who adopted a more urbanized life showed a greater prevalence (15%–20%). The prevalence of HTN was found to be 10%–16% in rural Bangladeshi people, slightly higher (12%–25%) in urban areas and, overall, 13%-18% among the adult population. This is less than South Asian countries such as Bhutan (23.9%) India (31.45%) Nepal (31.5%) Pakistan (33.8%), and Sri Lanka (25%)[15].

Present study was done from February to April 2018, it was late winter. We observed 39(7.8%) URTI out of total 500 patients, majority were younger age group. We found frequently BA 16(3.2%) & COPD 14(2.8%). Pneumonia was not so common but we observed total 7 cases.

Tuberculosis is a fatal disease if untreated. In Bangladesh, TB case notification have increased significantly since 2012, mainly driven by increased numbers of extra-pulmonary and clinically diagnosed pulmonary cases[16]. In our study we found TB, 13(2.6%) of total patients.

Among the infectious diseases, we found majority were suffering from UTI which is similar in pattern of URTI in our study. The prevalence of UTI varies according to sex and age[17]. It has been usually observed that UTI most commonly occurs in female. In our study UTI were 39(7.8%) The frequency is close to the incidence reported by Ahmed and Avasarala was 12.7%[18].

Nearly 60(12%) of total patients in our study had a diseases affecting the musculoskeletal system, most common mechanical LBP which were 14(2.8%). OA mainly knee joint was common morbidity among elderly in our study. Less frequently, we observed RA, reactive arthritis, SLE (Mild SLE, cutenious manifestation with positive immunogical antibody) Gout, PLID. Undifferentiated multiple joint pain were 7 in number and MSK type of chest & neck pain were 17 in number which were remained undiagnosed.

The present study was done to identify the frequency and type of diseases among the patients attending at medicine OPD in a tertiary care hospital. During data collection it was late winter and our hospital located in urban area which might be the region for change in pattern and frequency of diseases in our study. There are many other diseases in our study, but were few.

We suggest further studies in various region to determine the burden of diseases as our study was done only in one private tertiary care hospital.

CONCLUSION

Every practitioner must know about disease pattern at his workplace because it equips him to manage cases effectively. This study has revealed the objectives which mimic other studies. However, a broad based study is hereby advocated.

DISCLOSURE

All the authors declared no competing interest.

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