

Original Article

Pattern of diseases in admitted patients in medicine unit 2 - in a rural tertiary medical institute period: January 1, 2010 - december 31, 2010

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Abstract

Existing disease pattern and health seeking behavior in a community should be known to provide need based quality service. The aim of this study was to find out the disease pattern, common diseases, age distribution, sex ratio, seasonal influence, comorbidity etc in admitted patients in Khwaja Yunus Ali Medical College & Hospital (KYAMCH), a rural tertiary care Hospital in Bangladesh. In this retrospective and descriptive study total 550 patients were evaluated in 1 year period who were admitted either from OPD or through Emergency. Most of the diagnoses were made after evaluation according to the organ system involved eg. Gastrointestinal, hepatobiliary & pancreatic (15%); Respiratory (24%); Infective (6.5%); Renal (11%); Neurological (24%); Haematological (2.75%); Endocrine (6.75%); Rheumatological (4%); Psychiatric & Poisoning (6%). Hope we will get a understanding of disease pattern among the admitted patients in a good organized way through this study. Furthermore, it will be possible to calculate the mortality, treatment success, hospital staying, total cost of treatment thus to estimate the disease burden and cost effectiveness as well.

Introduction

Pattern of sickness in a community and health seeking behavior of the population should be known to provide need based healthcare services.

Khwaja Yunus Ali Medical College & Hospital (KYAMCH) is a 586 bedded Hospital and equipped with the most modern health care facilities. Almost all disciplines are available here. KYAMCH is a Government recognized referral Hospital which has an experienced team of physicians, many of them are qualified and trained abroad. This organization is supported by a comprehensive diagnostic centre as well. This centre is situated in a well-communicated, quiet, serene and pollution free rural environment with epic architectural beauty.

The objective to build the Hospital in a rural area is to

give equal access of state of art medical facility to the majority of countrymen who are deprived as living in semi urban or rural areas.

Patients get admitted either from out patient department while office hours or through the Emergency division during rest of the time.

The prevalence of period specific sickness and economic condition predictably hold an inverse relationship in rural area. Episodes of illnesses are reported to be higher for poor people due to their living conditions and nutritional status¹. Treatment choice involves a myriad of factors related to illness type and severity, pre-existing lay beliefs about illness causation, the range and accessibility of therapeutic options

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available, and their perceived efficacy, convenience, opportunity costs, quality of service, staff attitudes as well as the age, gender and social circumstances of the sick individual². Like much of the developing world, medical pluralism, or the existence of several distinct therapeutic systems in a single cultural setting, is an important feature of health care in Bangladesh. Indeed, a wide range of therapeutic choices is available, ranging from self-care to folk and western medicine, although both illness incidence and treatment options are importantly determined by poverty and gender³. The type of symptoms experienced for the illness and the number of days of illness are major determinants of health seeking behaviour and choice of care provider. In case of a mild single symptom such as fever, home remedies or folk prescriptions are used, whereas with multiple symptoms and longer period of illness, biomedical health provider is more likely to be consulted⁴. Traditional beliefs tend to be intertwined with peculiarities of the illness itself and a variety of circumstantial and social factors. This complexity is reflected in the health seeking behavior, including the use of home-prescriptions. The attitude of the health provider and patient satisfaction with the treatment play a role in health seeking behavior⁵. The overall situation of health care system is poor in developing countries like Bangladesh due to inadequate access to modern health services and poor utilization.

One of the public health challenges in Bangladesh is, therefore, to identify vulnerable groups and to provide them with needed preventive and curative health services⁶. The poor in Bangladesh are specially disadvantaged in accessing quality health care due to their marginalized position in society. In order to make the existing health-care delivery system more pro-poor, knowledge of their health seeking behavior is needed⁷.

This study aims to find out the sickness pattern,

common diseases, age distribution, sex ratio, seasonal influence, comorbidity etc in a good organized way in admitted patients in a rural tertiary care Hospital in Bangladesh.

Study Place:

Khwaja Yunus Ali Medical College Hospital (KYAMCH) is a rural tertiary Hospital. It is located about 147 Km from Dhaka in the bank of river Jamuna, 22.5 Km from Bangabandhu Bridge (Jamuna Bridge) and 28 Km from Sirajgonj city. Most of the patients come here from Rajshahi division and some from greater Mymensingh district.

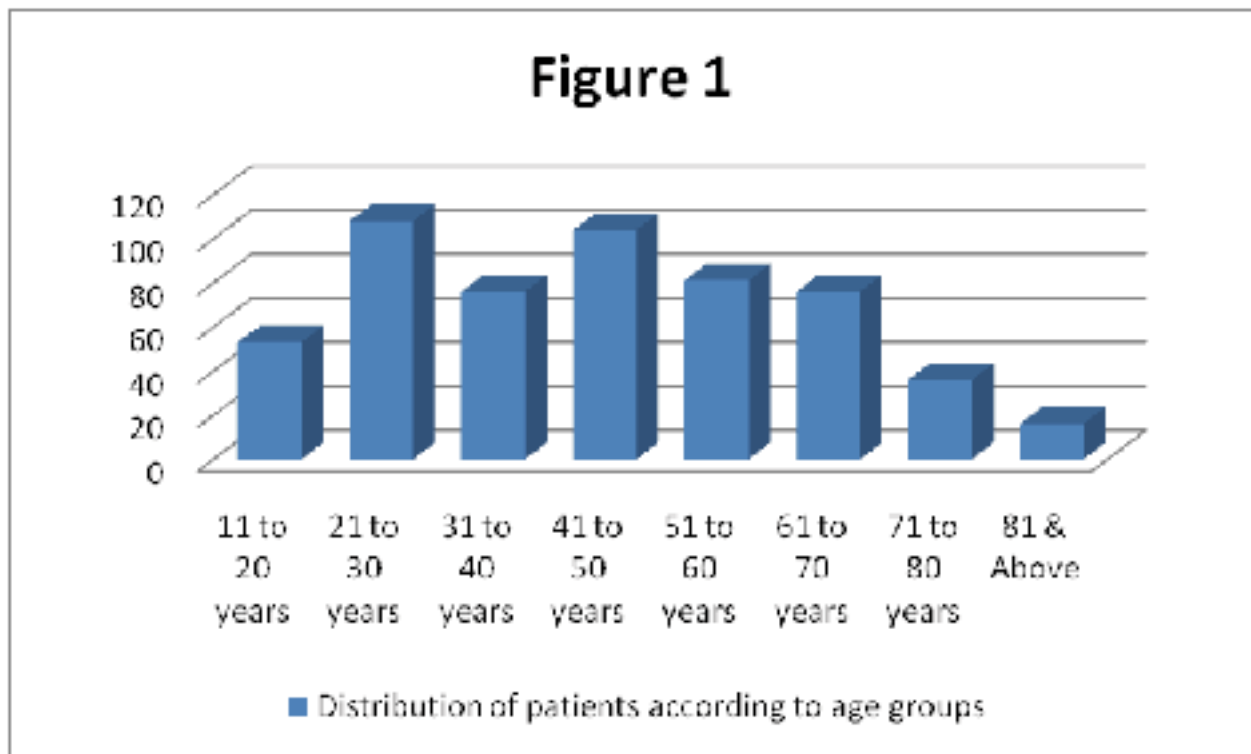
At present, there are two units in the Department of Medicine. Our study is based on the cases under the Medicine Unit-2, for the time period January 2010 to December 2010. Medicine Unit-2 offers alternate day admission. So the number of total cases in the Department of Medicine will be approximately twice considering both units together.

Methodology:

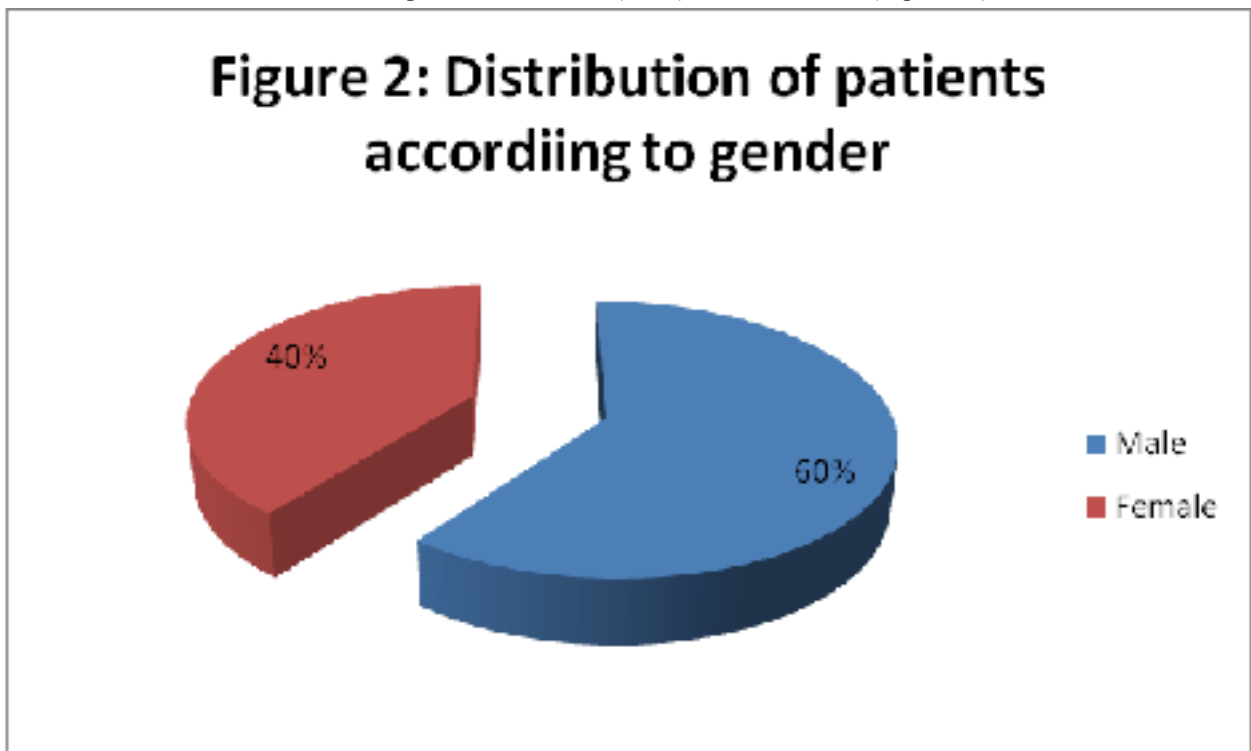
The study group consisted of consecutive 550 patients of different age and sex who were recorded serially on monthly basis as they were admitted. The duration of the study was 1 year (from January 1, 2010 to December 31, 2011). Patients' age , sex, organ system involvement were taken as variables. There was no inclusion or exclusion criteria. Data were collected from the files of admitted patients and were handled with Statistical Package for Social Science (SPSS)-17.

Results:

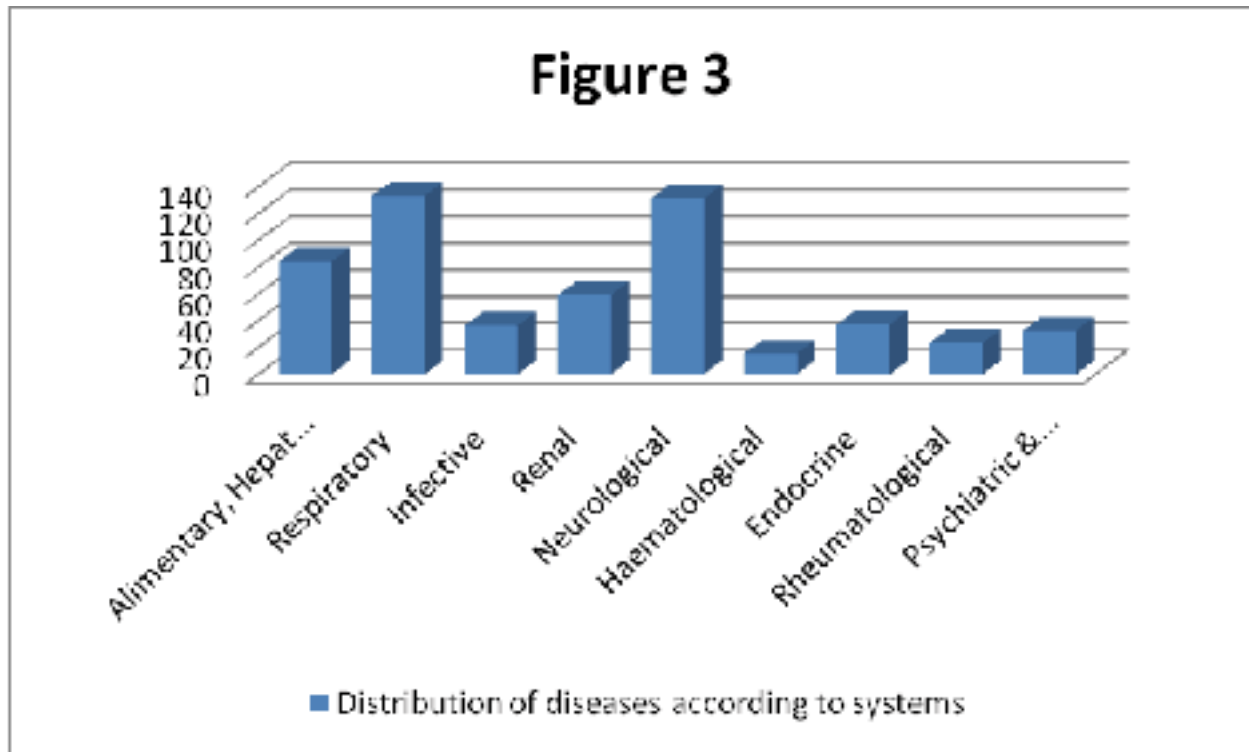
Total 550 patients were evaluated within this 1 year period. Patients' distribution according to their age are given below (Figure-1) and most of them are between the ages of 21 to 30 years and next between the ages of 41 to 50 years -



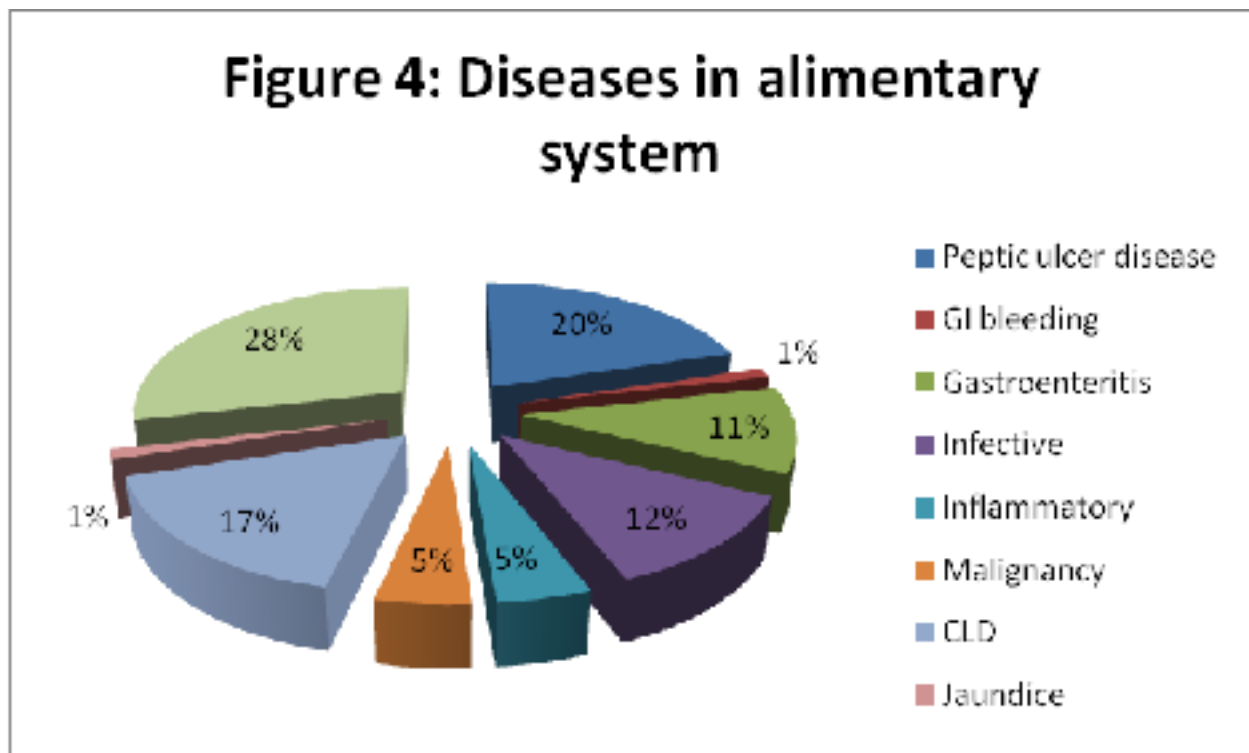
Most of the patients were male (66 %) as shown below (Figure 2) -



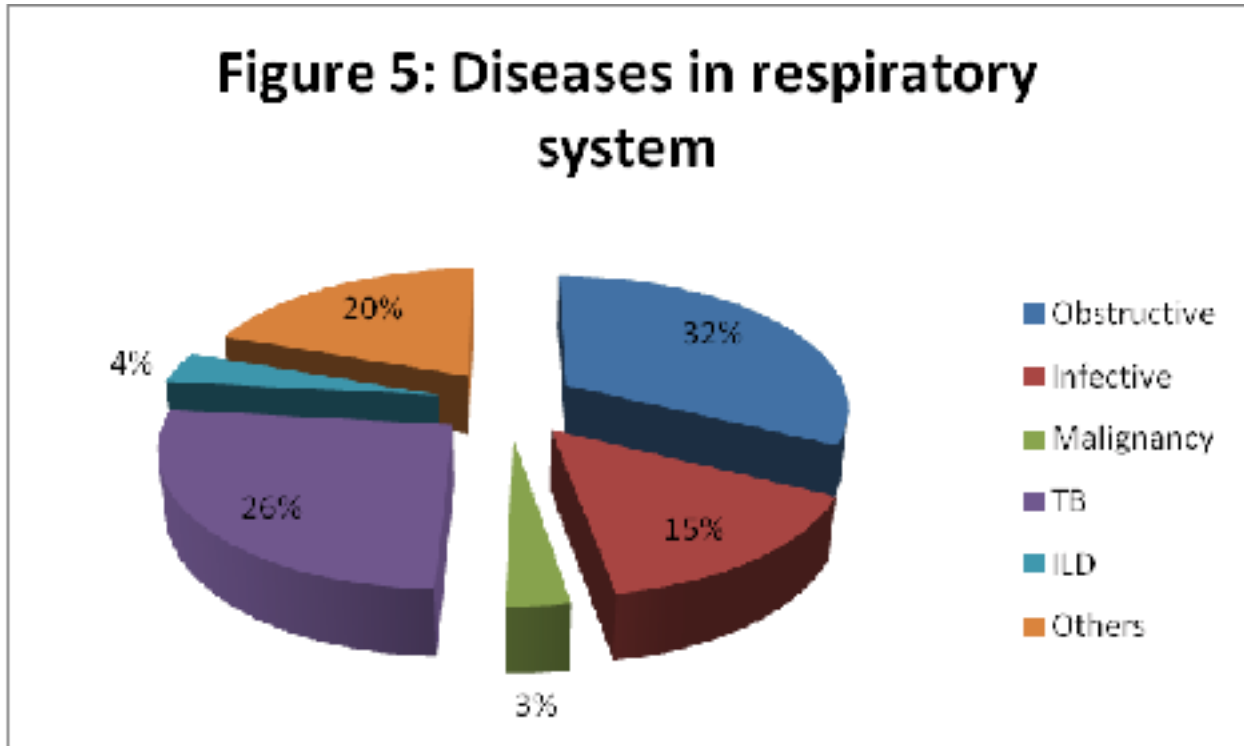
From the figure 3, it can be seen that the top three organ systems mostly involved are Respiratory system (24 %), Nervous system (24%) and Gastrointestinal, hepatobiliary & pancreatic system (15%).



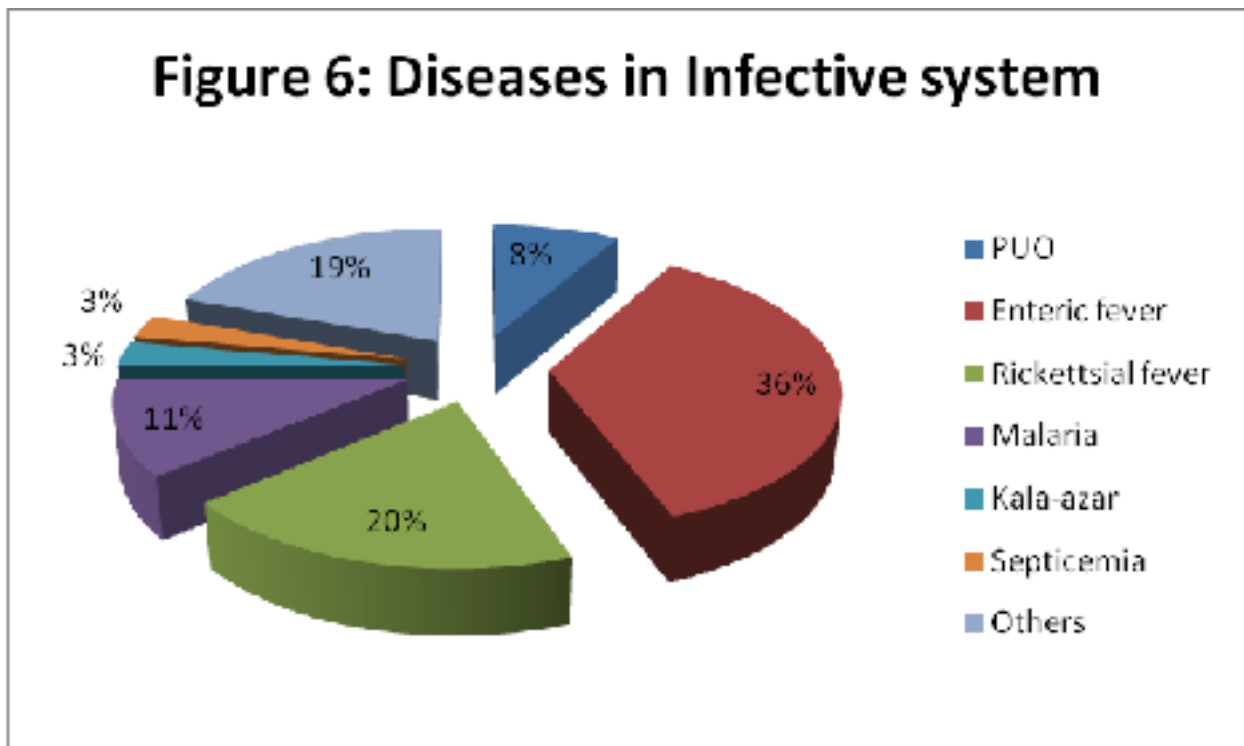
Among the Alimentary, hepatobiliary & pancreatic disorders (Figure 4), the peptic ulcer disease (20 %) was most frequent.



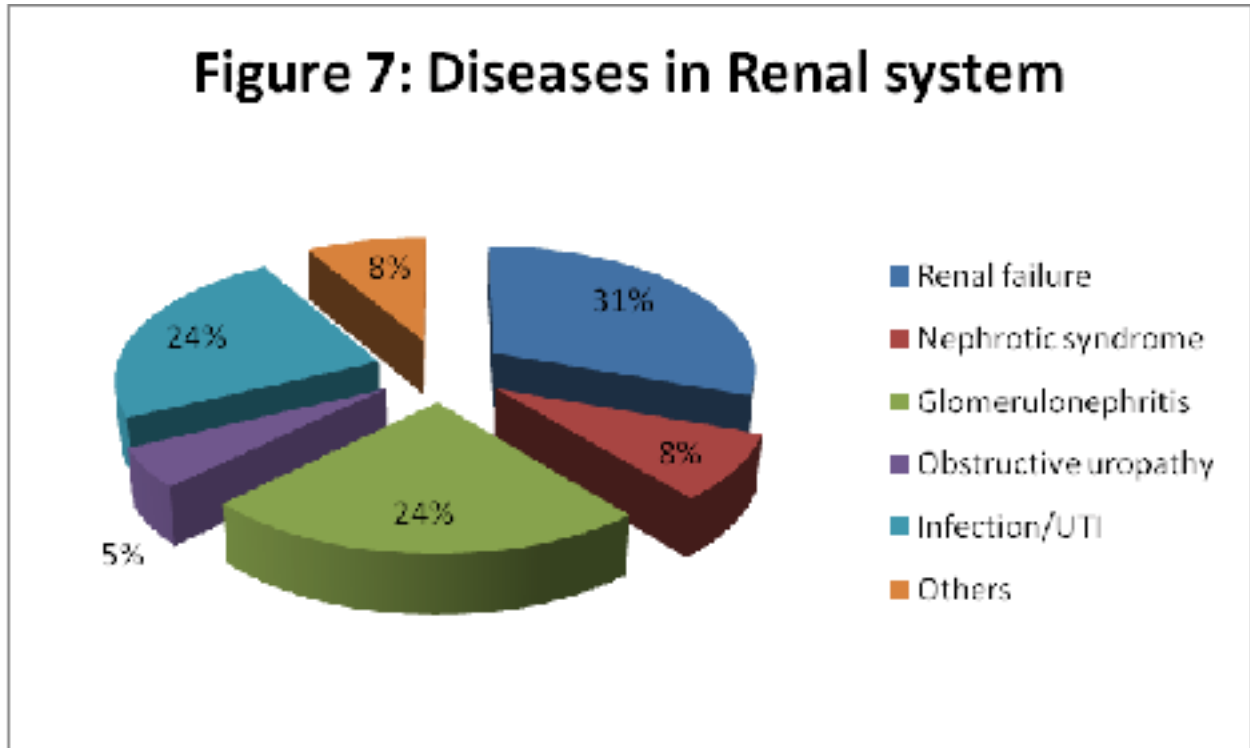
Disorders among the Respiratory system the Obstructive diseases (32 %), TB(26%), (Figure 5).



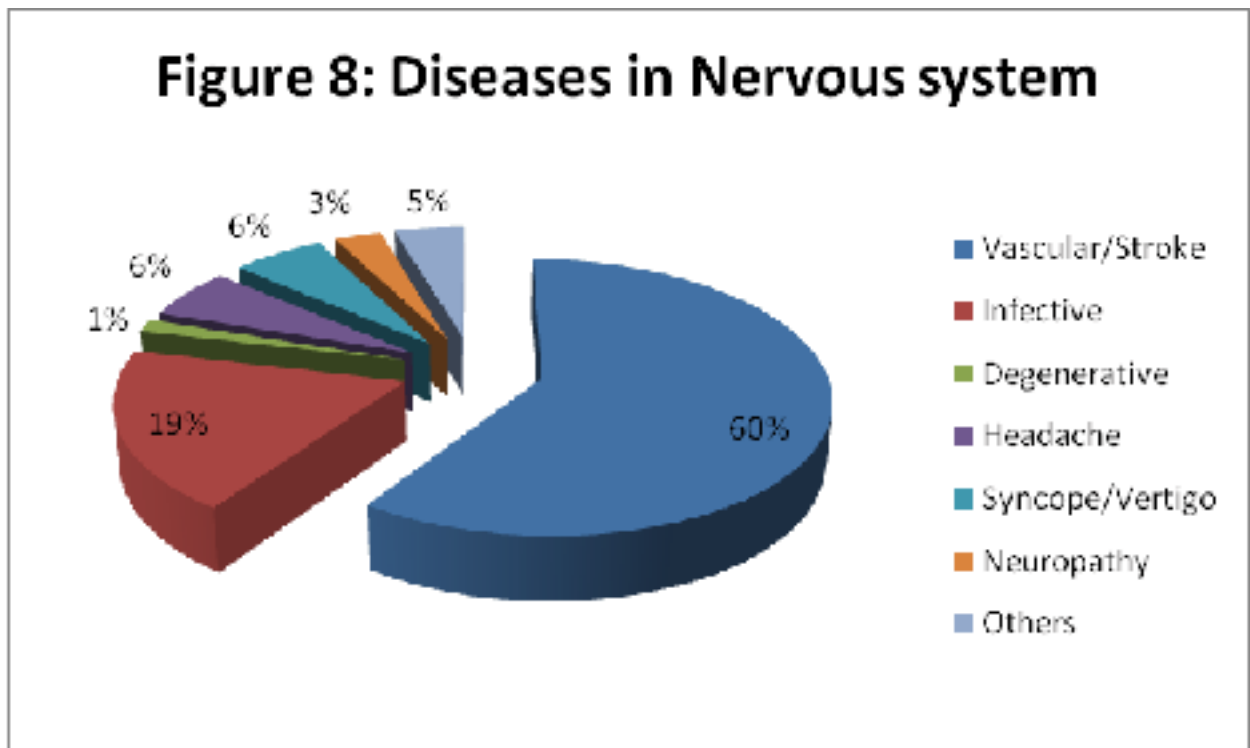
In case of Infectious disease (Figure 6) the commonest condition was Enteric fever(36%)



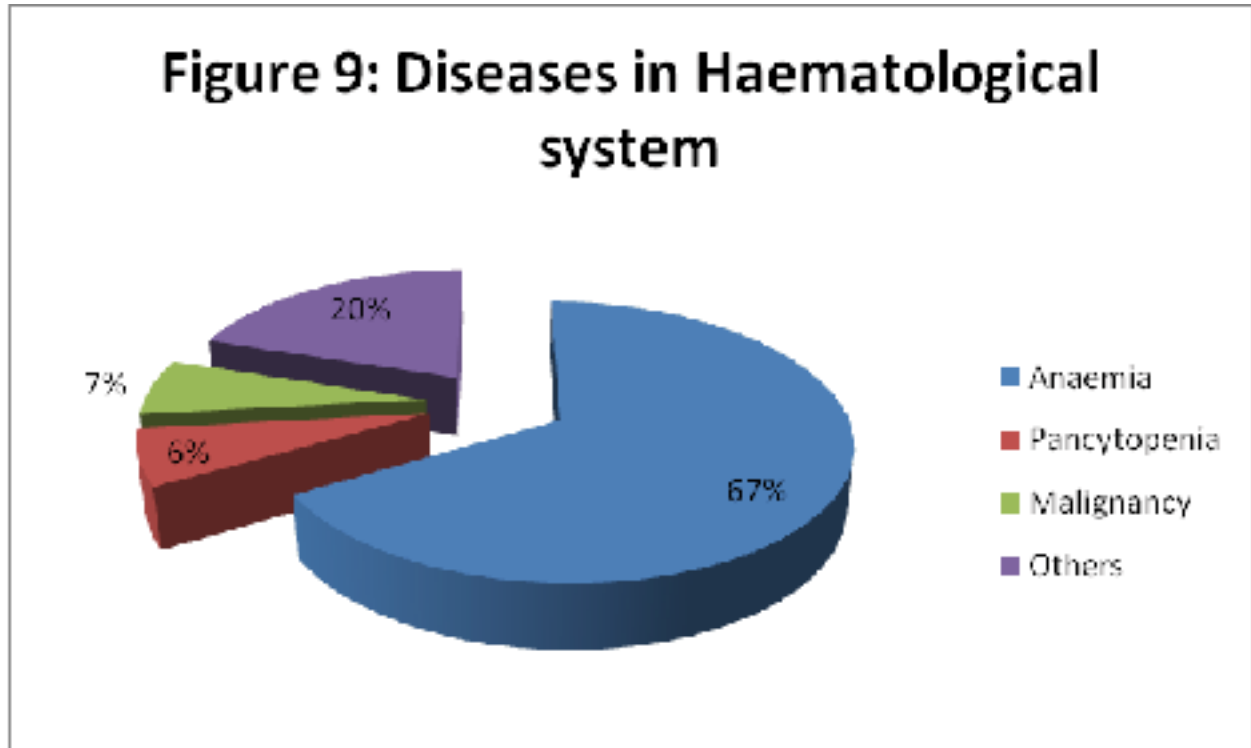
Within the Renal system (Figure 7), renal failure(30.5%) was most prevalent.



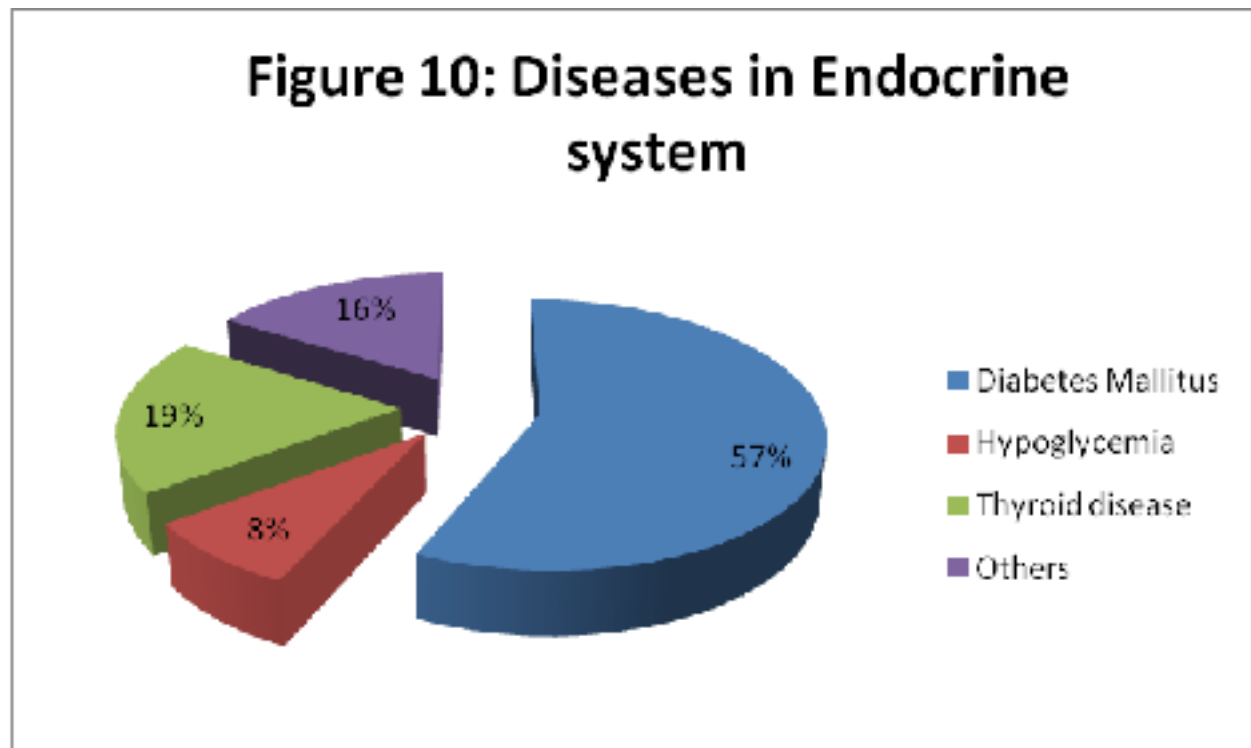
Stroke(59.5%) represents as the majority of the cases of the Nervous system(Figure - 8).



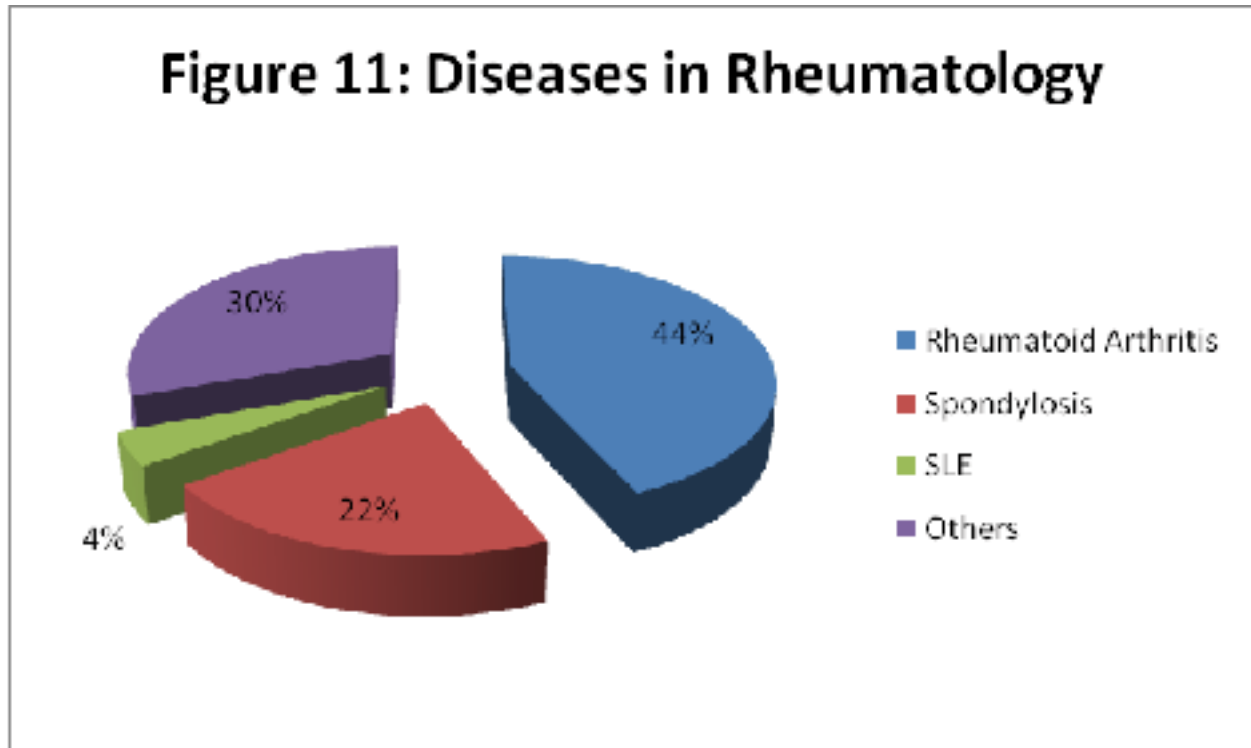
Anaemia(66.5%) was found as the most common Haematological disorder(Figure - 9)



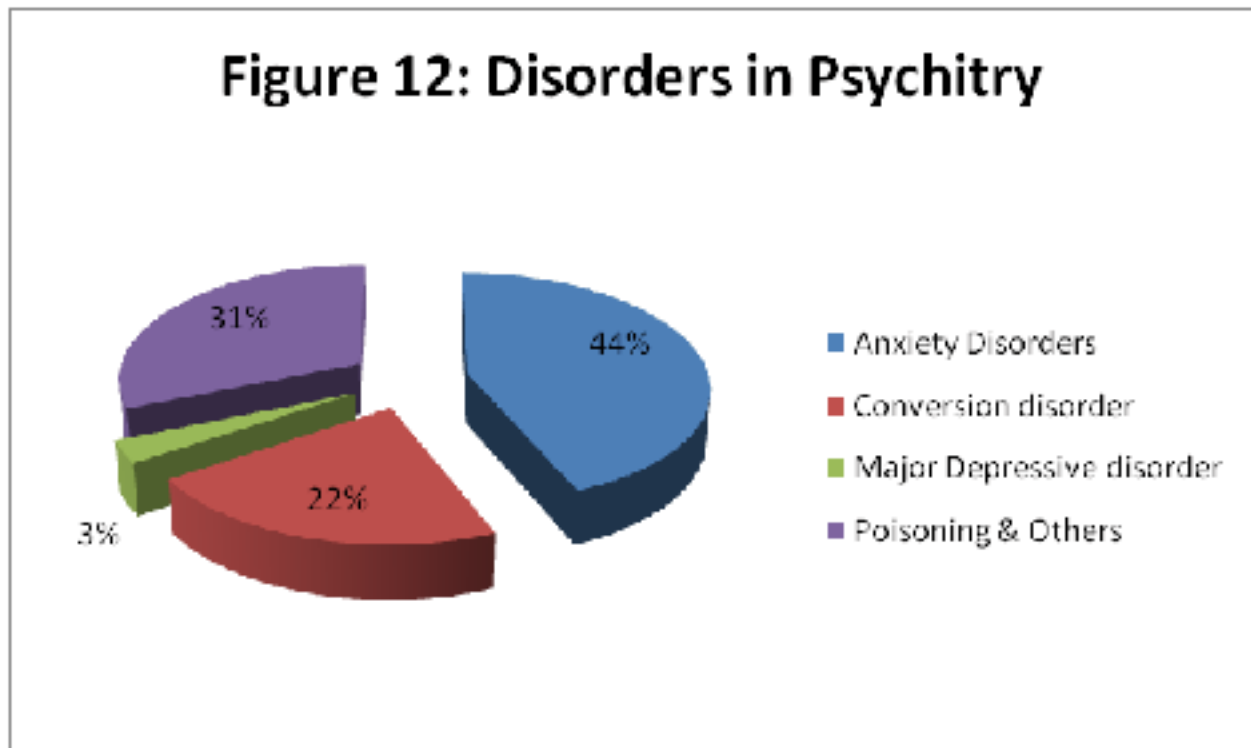
Uncontrolled Diabetes mellitus(56.5%) was the most remarkable Endocrine disorder(Figure - 10)



Rheumatoid arthritis(43%) was the most remarkable Rheumatological disease(Figure-11)



Regarding Psychiatric illness (Figure - 12), Anxiety disorder(43.5%) was most common



Discussion:

The study was aimed to determine the disease pattern and health seeking behavior in rural Bangladesh.

Nature of this study is retrospective and descriptive. Test of significance was not done. Total 550 patients were evaluated. Duration of the study was 1 year. Most of the patients were male (66 %). This may be due to the male are the earning members of the families and so greater attention is given for their treatment.

Most of them are between the ages of 21 to 30 years and next between the ages of 41 to 50 years according to age distribution. Age distribution of the respondents correspondent with the other studies conducted among the same population⁸.

Comorbidity was present in 233 (42.4%) and absent in 317 (57.6%) patients.

The top three organ systems mostly involved are Respiratory system (24.2 %), Nervous system (23.8 %) and Gastrointestinal, hepatobiliary & pancreatic system (15%).

Comparing with the National studies, the disease pattern in this study is not same but there are similarities. The three most frequently reported illnesses found in a National study were fever of various types and duration, gastrointestinal diseases including diarrhea and dysentery, and respiratory diseases. Ahmed et al. found the same disease pattern in their study, except respiratory disease was superseded by complains of pain/aches⁶, which was also found in the study by Hussain et al⁹.

We have found the population of this locality suffering greatly from Respiratory diseases which are prevalent during March to August. There might be any occupational relation. The people presented with Neurological disorders mostly during the months of May to October.

Most of the patients with renal disorder presented during April-May.

Majority of patients were admitted during the month of July - which may be either due to increased incidence of disease or due to economic solvency during this period. Sometimes the patients presented with less serious illness but we incidentally found more serious comorbidity eg. presenting with uncontrolled DM, we found renal impairment.etc.

Conclusion:

From the above findings it is evident that the disease pattern of the population is very crucial to provide need based quality service. It is particularly important to have the knowledge regarding age and sex distribution, seasonal variation, comorbidity

Further studies should be conducted and findings of the current study should be replicated to formulate policy measure to improve the overall scenario of health system of rural Bangladesh.

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