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GASTROINTESTINAL DISEASES;
FREQUENCY OF SYMPTOMS

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ABSTRACT... Objectives: To determine the frequency of gastrointestinal (GI) diseases/symptoms in a tertiary care hospital of Peshawar. **Methods:** A Cross sectional observational study was conducted in Medical department Khyber teaching hospital Peshawar from August 2005 to march 2006. A total of 189 patients with established diagnosis of any gastrointestinal disease were randomly selected. Out of total 101(53.43%) were males and 88(46.56%) were females. Relevant information's were recorded on a pre-designed questionnaire was designed in accordance with the objectives of the study. **Results:** The age range of the patients was from 8 years to 82 years with mean age of 47.5 years. The mode age observed was 45 years. Of total sampling (43.91%) were illiterate, primary passed (24.33%), matric education (15.87%), secondary education (11.11%) and (4.76%) patients had degree level education. The gastrointestinal disease pattern was: acute peptic disease/ dyspepsia (15.87%), reflux esophagitis (7.91%), duodenal ulcer (1.5%), gastric ulcer (0.5%), worm infestation (1.5%), esophageal carcinoma (0.5%) and miscellaneous in 136(71.95%) patients. The distribution of the gastrointestinal disease symptoms was: chronic diarrhea (19.04%), vomiting (12.16%), dysentery (6.34%), bleeding per rectum (5.20%), constipation (2.1%), anorexia (1.5%), dysphagia (1.10%) and multiple symptoms were recorded in (24.33%) patients. **Conclusion:** acute peptic disease/dyspepsia, chronic diarrhea dysentery, reflux esophagitis are major gastro intestinal (GI) diseases in our setup. Duodenal and gastric ulcers, carcinoma of gastrointestinal tract, worms infestation, dysphagia and anorexia were not as common.

Key words: Gastro intestinal diseases, Hospital based study, Peshawar.

INTRODUCTION

According to data published in journal of Pakistan medical association, a peer-reviewed journal that tracks new and reemerging infectious diseases, Out of 4,506 in-patients, maximum admissions 26.54% were of gastrointestinal diseases. Overall fatality was found to be 6%[1].

In a study 58 % dyspeptic and 41 % nondyspeptic patients were included. In the dyspeptic group, significantly more patients had duodenitis and a deformed bulb[2]. Reflux esophagitis is one of the major gastro intestinal(GI) disorders in Pakistan. In another study 114 H. pylori positive patients, 75 had histological oesophagitis. After excluding cases of hiatal hernia (H.H)

and gaping lower oesophageal sphincter (LOS), number of H. pylori positive patients decreased to 73, out of these 50 had histological oesophagitis[3].

Diarrhea is also often main manifestation in many GIT diseases. Its frequency is very high in children and is always related contamination of drinking water with bacteria and fecal materials. A study in Punjab, gives the same results. A possible trend was seen relating the number of E. coli in the household storage containers (the domestic domain) and diarrhea incidence, but this did not reach statistical significance. Faecal contamination levels in household water containers were generally high even when the source water was of good quality[4].

Present study was therefore conducted as to determine the frequency of gastrointestinal diseases in a tertiary care hospital of Peshawar.

PATIENTS AND METHODS

This cross sectional observational study was conducted in medical department Khyber teaching hospital Peshawar, from August 2005 to March 2006.

A total of 189 patients with established diagnosis of any gastrointestinal disease were randomly selected. Out of total 101(53.43%) were males and 89(46.56%) were females.

Inclusion criteria were all patients with established gastro intestinal diseases confirmed by the consultant, irrespective of age and sex admitted in medical department of Khyber teaching hospital Peshawar.

Exclusion criteria were patients with liver disease, as the study was totally restricted to gastrointestinal diseases.

A questionnaire was designed in accordance with the objectives of the study. Questionnaire contained information about the age sex, address, and education of patients. It also contained information about clinical presentation of patients with GI diseases.

A detailed history of all patients was taken including chief complaints; present history, past history, family history of the disease. General physical examination was done in all patients.

A final diagnosis of the disease confirmed by the consultant was recorded on questionnaire. Then data was analyzed for results and conclusion.

Chi square test was used to check the association between qualitative variables by statistical analysis software (SAS). P-value less than or equal to 0.05 consider significant.

RESULTS

Sampling and sex ratio

A total of 189 patients with established diagnosis of any gastro intestinal diseases were randomly selected. Out of total 101(53.43%) were males and 88(46.56%) were females.

Age range

The age range of the patients was from 8 years to 82 years with mean age of 45.5 years. The mode age observed was 40 years. We observed more female patients in the age range 21-40 years than male and the proportion is statistically significant (p-value 0.008). (Table No I).

Table-I. Age range of the patients with gastrointestinal disease (N=189)				
Age range of patients	**Males 101 (53.43%)**	**Females 88 (46.56%)**	**Percentage of total**	**P-value**
8-20 years	13 (6.8%)	5 (2.64%)	9.52%	0.008
21-40 years	24 (12.69%)	41 (21.6)	34.39%	
41-60 years	36 (19.4%)	22 (11.64%)	30.68%	
More than 60 years	28 (14.81%)	20 (10.58%)	25.39%	

Education of patients

In present study out of total sampling (43.91%) were illiterate, primary passed (24.33%), matric education (15.87%), secondary education (11.11%) and (4.76%) patients had degree level education. There is statistically association of education with sex in gastro intestinal patients (p-value 0.001). Uneducated females are more likely to gastro intestinal disease than male (Table No II).

Gastrointestinal disease pattern

The gastrointestinal disease pattern was: acute peptic disease/ dyspepsia (15.87%), reflux esophagitis (7.91%), duodenal ulcer (1.5%), gastric ulcer (0.5%), worm infestation (1.5%), esophageal carcinoma (0.5%) and miscellaneous gastrointestinal disease symptoms were recorded in 136(71.95%) patients. (Table No III).

Table-II. Education of the patients with gastrointestinal disease. (N=189)				
Education of the patients	**Males 101 (53.43%)**	**Females 88 (46.56%)**	**Percentage of total**	**P-value**
No Education	27 (14.28%)	56 (29.62%)	43.91%	0.001
Primary Education	27 (14.28%)	19 (10.05)	24.33%	
Matric Education	22 (11.64%)	8 (4.20%)	15.87%	
Secondary Education	16 (8.48%)	5 (2.64%)	11.11%	
Degree Education	9 (4.76%)	-	4.76%	

Table-III. Gastrointestinal disease pattern in a tertiary care hospital of Peshawar. (N=189)			
Gastrointestinal disease	**Males 101 (53.43%)**	**Females 88 (46.56%)**	**Percentage of total**
Acute peptic disease / dyspepsia	21 (11.11%)	9 (4.7%)	15.87%
Reflux esophagitis	6 (4.76%)	9 (11.11%)	7.91%
Duodenal ulcer	3 (1.5%)	-	1.5%
Gastric ulcer	1 (0.5%)	-	0.5%
Worms infestation	3 (1.5%)	-	1.5%
Esophageal carcinoma	-	1 (0.5%)	0.5%
Miscellaneous GI symptoms			
Chronic diarrhea	23 (12.16%)	13 (6.37%)	19.4%
Vomiting	10 (5.29%)	13 (6.87%)	12.16%
Dysentery	5 (2.64%)	7 (3.70%)	6.34%
Bleeding per rectum	8 (4.2%)	2 (1.10%)	5.20%
Constipation	1 (0.50%)	3 (1.56%)	2.1%
Anorexia	1 (0.50%)	2 (1.10%)	1.5%
Dysphagia	-	2 (1.10%)	1.10%
Multiple symptoms	19 (10.5%)	27 (14.28%)	24.33%

DISCUSSION

Upper gastrointestinal motility disorders are not uncommon. While the exact prevalence in Pakistan is not known there are substantial number of patients who suffer from upper abdominal pain, fullness, nausea, vomiting, anorexia or heartburn and are found to be normal on endoscopy and liver function test. In such patients it appears that the disorder is a functional one with sluggish emptying of the stomach resulting in the symptoms as described above.

Acute peptic disease was recorded in 15.87% of patients. Symptoms of possible causes often overlap, which can make initial diagnosis difficult. In many patients, a definite cause is never established[5]. Our finding matches with the findings of W. Ahmed et al [6] and they further elaborate that acute peptic disease needs intermittent and occasionally continuous treatment. Many international data are available on the healing and relapse rates of ulcers with various drugs, but local data are scarce.

Education status of patients was preferably recorded in present study, as it reflects on the preventive measures one can take over to prevent himself from infectious GI diseases. In present study awareness level of the respondents was not satisfactory as (43.91%) of the respondents were illiterate and (24.33%) had only

passed through their primary education. And if we compare our study with Waters BM et al[7,] which discusses effectively the effect of formal education in prevention of GIT disease is well documented. They showed higher knowledge scores and perceived knowledge ratings helps to prevent major waterborne and food borne gastrointestinal diseases. In our part of the world preventive measures are less adopted than they go for medical and intervention treatment.

Duodenal ulcer recorded in (1.5%) and gastric ulcer (0.5%) patients. Our findings are lower than the results of 8 years audit of upper gastrointestinal endoscopic procedures at Rawalpindi, Pakistan[8], they observed out of total sampling 8481 patients 1.9% had duodenal ulcer and 4.6% gastric ulcer. Esophageal ulcer was recorded in 0.4% cases. The reason could be that in Peshawar they don't practice endoscopies on all the candidates and they might miss many cases as such. Reflux esophagitis was recorded in 7.91% cases in our patients. Our findings are lower than that of Yaqoob J et al[9]. They recorded that the overall frequency of gastroesophageal reflux symptoms was 24% (228/963) with 58% (133/228) males and 42% (95/228) females. Again the reason could be practicing of endoscopy in our hospital.

Worm infestation observed in (1.5%) cases. Comparing our results with that of another study from Ayub Medical College, 283 children were examined, 230 tested positive for various intestinal parasites. There were 8 different species of helminths and protozoa found in the specimens. By far the highest frequency of 48% was noted for Ascaris lumbricoides while 6.9% (16 cases) of the specimens examined had mixed infestation[10].

In present study the distribution of the miscellaneous gastrointestinal disease symptoms was: chronic diarrhea (19.04%), vomiting (12.16%), dysentery (6.34%), bleeding per rectum (5.20%) etc. In a study 73% lower incidence of diarrhea than controls was recorded. Those that received soap had a 56% lower incidence, that reflects preventive measure can easily prevent this communicable disease.[11] In a study from Portugal the prevalence of constipation in adolescents was 22.3% which is more in magnitude than observed in our study. It was more frequent in female (27.4%) than in male (14.9%)[12].

CONCLUSION

Acute peptic disease/ dyspepsia, reflux esophagitis and miscellaneous gastro intestinal disease symptoms like chronic diarrhea, vomiting, dysentery, bleeding per rectum and constipation were recorded as major gastrointestinal diseases in our study. Preventive measures should be introduced in the community to decrease the burden of these diseases.

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