

Clinical and Laboratory Evaluation of Gastrointestinal (Luminal) Diseases in the Elderly

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Background: Forty five percent of the elderly have chronic diseases and disabilities. Gastrointestinal diseases are a frequent cause of morbidity, mortality and hospital admissions in the elderly. They present with subtle clinical manifestations and life threatening complications.

Material and Methods: Patients aged 60 years or above presenting with gastrointestinal symptoms were selected from a total of 504 cases admitted in the medical units during the period from March 2003 to March 2004. Thorough clinical examination and laboratory investigations were performed in each case.

Results: Total 56 (11%) patients out of 504 patients aged 60 years or above had gastrointestinal disorders, the male: female ratio was 3:1, the mean age of presentation was 66 years. Anorexia (39%), abdominal pain (39%), recent changes in bowel habits (37%), haematemesis / melena (34%) and weight loss (28%) were the common presenting symptoms. 79% cases had co-morbid conditions and 46.5% had a past history of gastrointestinal diseases. Pallor (68%), malnutrition (39%), abdominal tenderness (39%), abdominal distension (28%) were the significant examination findings. Anaemia (Hb<10 g/dl) was the common laboratory finding (68%), stool for occult blood was positive in 41% cases. Endoscopic studies revealed stomach diseases (44.6%) in the majority of cases followed by duodenal (18%) and oesophageal (16%) diseases. Colonic diseases was seen in 11% cases. USG abdomen was normal in the majority (96.4%) of cases. H pylori was positive in 38% cases of peptic ulcer disease and gastritis.

Conclusion : Gastrointestinal disorders are an important cause of morbidity and hospital admission in the elderly. Malignancy is the commonest cause of gastrointestinal morbidity in elderly patients. Endoscopic studies and histopathological examinations are the cornerstones of diagnosis.

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Introduction

Gastrointestinal diseases are frequent cause of morbidity, mortality and hospital admissions in the elderly. Common diseases in this age group are: gastroesophageal reflux disorder, hiatus hernia, NSAID induced gastropathy, peptic ulcer disease, non-ulcer dyspepsia, cancers of gastrointestinal tract and constipation.^{1,2}

Lack of any well-organized data from the North Eastern India stimulated the present study with the objectives of finding the etiology, possible risk factors

and overall clinical profile of gastrointestinal (luminal) problems in the elderly.

Material And Methods

This is a prospective hospital based study carried out from March 2003 to March 2004. The cases were selected from a total of 504 geriatric patients admitted in various medical units of Gauhati Medical College and Hospital with various gastrointestinal symptoms viz anorexia, nausea, haematemesis, melena, haematochezia, recent change in bowel habits or with history of significant weight loss. All patients were subjected to detailed clinical evaluation and requisite investigational work up. Patients with primary hepatic, biliary or pancreatic disease were excluded from final data analysis.

Observations and Results

Fifty six patients out of total admission of 504

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cases presented with gastrointestinal symptoms, the incidence being 11%. Among them, 42 patients were male and 14 female (M:F ratio 3:1).

Highest number of patients were in the age group of 60-65 years, followed by 66–70 years age group; together they made up >60% of total patients. The mean age of presentation was 66 years and the median age was 65 years.

Table 1 shows the incidence of various presenting complaints of the patients. Commoner among these were anorexia, pain abdomen, recent changes in bowel habit, abdominal distension, upper gastrointestinal bleed and weight loss.

Co morbid conditions were detected in 79% of patients; notable among these being chronic obstructive airway disease, hypertension and diabetes mellitus.

Elicitation of addiction history revealed 55% as smokers, 50% as betel nut chewers with or without tobacco and 20% gave a history of alcohol consumption.

A history of analgesic or steroid intake mainly for various arthritic conditions was found in 12 patients (21.5%).

Table 2 and 3 depict the findings on general and systemic examination. Anaemia, malnutrition and abdominal tenderness were among the most common findings.

Table 1: Incidence of presenting complaints

Anorexia	22 (39%)
Pain abdomen	22 (39%)
Recent change in bowel habit	21 (37%)
Abdominal distension	19 (34%)
Haematemesis/Melena	19 (34%)
Weight loss	16 (28%)
Nausea/Vomiting	10 (18%)
Heart burn	10 (18%)
Dysphagia	6 (10%)
Haematochezia	4 (7%)

Table 2: Findings on General Examination

Pallor	36 (68%)
Malnutrition	21 (39%)
Oedema	11 (21%)
Altered hemodynamics	5 (9%)
Lymph nodes	2 (3%)

Table 3: Findings on GI Tract Examination

Tenderness	22 (39%)
Lump abdomen	7 (14%)
Ascites	6 (10.7%)
Hepatosplenomegaly	2 (3.6%)
Inguinal hernia	2 (3.6%)
Haemorrhoids	3 (5.4%)
Anal mass	1 (1.8%)

Table 4: Endoscopic findings

Growth in stomach	10 (18%)
Gastritis	8 (14%)
Duodenal ulcer	8 (14%)
Growth in colon	7 (12.5%)
Gastric ulcer	5 (9%)
Growth in esophagus	4 (7%)
Esophageal ulcer	2 (3.6%)
Esophageal candidiasis	2 (3.6%)
Hookworm infestation	2 (3.6%)
Others	6 (10%)

Table 5: Final diagnosis

A) MALIGNANCIES	23 (41%)
Carcinoma stomach	10
Carcinoma colon	7
Carcinoma esophagus	4
Carcinoma anorectum	2
B) NON-MALIGNANT CONDITIONS	33 (59%)
Duodenal ulcer	6
Gastritis	6
Drug induced GI disease	6
Gastric ulcer	3
Hookworm infestation	2
Oesophageal ulcer	2
Polyp	2
Oesophageal candidiasis	2
Oesophagitis	2
Stomal ulcer	1
Duodenal erosion	1

Anaemia was detected in 68% of the study group according to WHO criteria. Eight patients underwent barium study of the GI tract. Abnormalities detected by barium study were growth in stomach, growth in hepatic flexure, caecal mass and duodenal ulcer.

Table 4 illustrates the various lesions detected during endoscopic evaluation. Upper GI lesions predominated over lower GI lesions in the study population.

Malignancy was the commonest final diagnosis, arrived at in 41% patients. Carcinoma stomach, colon and esophagus were the most common lesions among them. The various common non-malignant disorders detected were acid-peptic diseases and drug induced GI disorders. Table 5 enlists the final diagnosis of the study population.

Discussion

The present study offered a good opportunity to evaluate and analyse the gastrointestinal disorders among the elderly in a tertiary level referral hospital among the indoor patients.

An incidence rate of 11% of gastrointestinal disorders shows that these are an important cause of hospital admission in the elderly. The gender ratio of 3:1 in favour of males could be reflective of the fact that males are exposed more to various risk factors and seek medical attention early. High number of patients in the younger age group is on the expected line as the life expectancy is 64 years at birth in our country. These demographic features are consistent with other studies.^{3,4}

A high percentage of patients (68%) were detected to have anaemia in our study. Nearly all cases with malignancy were anaemic while anaemia was present in 45.5% cases of non-malignant disorders. Stool for occult blood was positive in 14 cases (60.8%) of malignancies and 9 cases (27%) of non-malignant disorders. Our study has found malignancy to be detected in 41% of patients consistent with Samal and Ramakrishna, who detected it in 34% of patients.⁴ The highest incidence of carcinoma stomach among the various malignancies in the present study is supported by similar findings in other studies from India. Studies from western countries found a higher incidence of nonmalignant disorders and also a high incidence of carcinoma colon over carcinoma stomach among the malignancies.³⁻⁷ This could be explained by the difference in life styles and food habits.

In present study, NSAID's were important cause of peptic ulcer disease and gastritis (28.5% and 60% respectively). This is quite a high incidence compared with other studies.⁴ Taha A et al found an incidence of 20-40%.⁸ High incidence of comorbid conditions (79%) necessitating the use of offending agents like NSAID's and aspirin appears to be the cause for it. Of the 13 patients of peptic ulcer disease in total, 4

cases (30.8%) were found to be medication related. Of them 2 cases were of duodenal ulcer and 2 of gastric ulcer. Complication in the form of perforation occurred in one case of duodenal ulcer and the patient had to go undergo emergency surgery. Fock noted that nearly half of cases of NSAID's induced peptic ulcer disease present with complications with 25% requiring surgery.⁹ In our study, H. Pylori was negative in all the 6 cases of NSAID's induced GI disorder. Other studies have also reported that H. pylori plays little role in antral ulcers in those taking NSAIDs.^{10,11}

Conclusion

Gastrointestinal disorders are an important cause of morbidity and hospital admission in the elderly. Malignancy is the commonest cause of gastrointestinal morbidity in elderly patients. Endoscopic studies and histopathological examination are the cornerstones of diagnosis. Being the first study of this kind from the North-Eastern Indian, it can form the platform to carry out larger and more focused study on gastrointestinal problems of elderly from this and other regions of the country.

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