

Original Article

Evaluation of Upper Abdominal Pain of Admitted Patients in a Tertiary Hospital

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ABSTRACT

Background: Abdominal pain is an extremely common presenting symptom. Within this upper abdominal pain that is located in epigastrium or either hypochondriac is more commoner one. This pain may arise from upper abdominal structures like stomach, Liver, Gall bladder etc. **Objectives:** The main objective of this study is to evaluate the upper abdominal pain of patients admitted in a tertiary hospital. **Method:** This prospective study was conducted at Holy Family Red Crescent Medical College Hospital, Dhaka, Bangladesh for a period of March 2008 to February 2009. The cases were selected by special inclusion and exclusion criteria. All patients were presented with acute upper abdominal pain. The age group of the patients is mostly belong to younger and for abdominal pain and diseases female age group is mostly affected in this series. The study was designed to treat all the patients conservatively and accordingly all were given

conservative regimen up to 24 hours. There after they were assessed clinically. **Result:** In this study 200 cases of upper abdominal pain from Bangladesh. series 22% patient is anaemic, 52% shows epigastric tenderness, positive Murphy's sign found in 14% cases. Rt hypochondriac tenderness was present in 20% cases. Other less common clinical finding was hepatomegaly (5%), Jaundice (4%) and wt. loss (2.5%). In this series I/V fluid was mostly used for the treatment protocol. The other protocol such as PPI/H2 blocker, triple therapy, antibiotics was also used for the protocol. Antispasmodics were the second most used treatment used for the diseases of upper abdominal pain. The outcome of the cases was excellent with 1% death and no patient leaving hospital of their own in the present series. **Conclusion:** In this series there is a strong association between age of the patient, duration of acute illness and outcome. It is suggested that treatment of selected cases of upper abdominal pain and its related diseases should be improved for every sex groups specially those who are mostly affected by these diseases.

Keywords: Abdominal Pain, Diseases

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INTRODUCTION

Abdominal pain is an extremely common presenting symptom. Within this upper abdominal pain that is located in epigastrium or either hypochondriac is more commoner one. This pain may arise from upper abdominal structures like stomach, upper intestine, hepatobiliary system, pancreas etc. or from non alimentary structures like, heart, aorta, vertebral column, abdominal muscle etc. and also may be functional in origin.¹ The morbidity and mortality of upper abdominal pain depends on the cause of the pain, duration of onset of disease, general condition of the patient presence or absence of concurrent medical problem. Some other factors contribute to the high mortality rate such as diagnostic delay, wrong diagnosis, ignorance of public, poor socioeconomic condition, bad communication and inadequate treatment. Early diagnosis and proper treatment in skilled hand will definitely bring good outcome. Upper abdominal pain is a common problem encountered by the physicians and surgeons all over the world. It demands early correct diagnosis and prompt treatment.² We usually consider surgical repair as a sole option of treatment of perforation without categorizing the patients according to severity of the disease, age of the patient or duration of illness and general condition of the patient. In developed countries the frequency of abdominal pain disease complication is very rare and their surgical complications reduced to minimum because of their door to door health facilities and technical development in surgical field. But in developing countries like Bangladesh where health facilities are not so developed, open surgical repair is the choice of treatment and consequently still there are significant postoperative mortality and morbidity.³ The present study is mainly carried out to evaluating the aetiological pattern of upper abdominal

pain in a tertiary hospital, how patients present in the hospital, get information about treatment approaches commonly adopted, have an idea of about outcome of treatment. The main objective of this study is to evaluate the upper abdominal pain of patients admitted in a tertiary hospital.

OBJECTIVE

The main objective of this study is to evaluate the upper abdominal pain of patients admitted in a tertiary hospital.

METHOD AND MATERIALS

Type of Study: A prospective study

Place of Study: Holy Family Red Crescent Medical College Hospital, Dhaka.

Period of study: The duration of this study was twelve months (March 2008 to February 2009)

Sample size: Two hundred samples had been taken for this study.

Inclusion criteria:

1. Patients of > 12 years of age and both sexes, irrespective of locality, race or religion.
2. Patients presenting with upper abdominal pain which has not been previously investigated or treated in a hospital
3. With or without associated features like vomiting, constipation, loose motion, fever (and many others) etc.

Exclusion criteria:

1. Patients leaving hospital of their own, or transferred to other units within 48 hours of the hospitalization were excluded.
2. Patients unwilling to take part in the study after the informed verbal consent process.

Data collection method: Data collected from the patient in a prescribed protocol.

Data analysis: All data were analyzed by standard statistical tools.

RESULTS

Table-1: Distribution of disease among the patients

Disease	Total Number	Percentages
Acutegastritis	40	20%
GastricUlcer	30	15%
Duodenal Ulcer	32	16%
Non ulcer dyspepsia	30	15%
Acute cholecystitis	22	11%
Chronic cholecystitis	6	3%
Acute pancreatitis	18	9%
Acute Hepatitis	8	4%
Acute-myocardialinfarction	4	2%
liver abscess	4	2%
Hepatoce llular carcinoma	2	1%
Gastroenteritis	4	2%

Table 1 showing that total number of aetiological distribution of upper abdominal pain of patients. Total number

of patients in this series was 200 and mostly found acute gastritis disease in this series.

Table 2: Age distribution by diseases

Diseases	Age(Yrs)	Total
Acute gastritis	21-63 yrs	40
Gastric Ulcer	30-65 yrs	30
Duodenal Ulcer	25-58yrs	32
NonUlcer dyspepsia	14-36yrs	30
Acute Cholecystitis	28-70yrs	22
Chronic Cholecystitis	40-61yrs	6
Acute pancreatitis	25-48 yrs	18
Acute Hepatitis	20-45yrs	8
Acute myocardial infarction	35-58 yrs	4
Liver abscess	30-45yrs	4
Hepatoma	50-61yrs	2
Gastroenteritis	16-50 yrs	4

In series out of 200 cases the age were distributed as diseases. The mean age of the patients was 44.25SD. Table 2 shows the age varied from 14 to 70 years. The

average age was 25- 34 years. Maximum number of patients falls into the age of 21-63 years affected by acute gastritis.

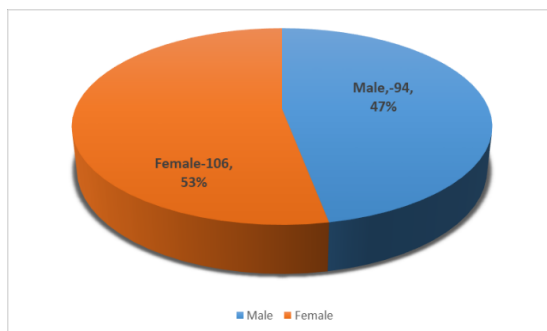


Figure 2: Pie chart of Sex incidence

Figure 2 shows that out of 200 patients, 106 were female and only 94 were male.

And the percentage of the sex distribution was female at 53% and male at 47%.

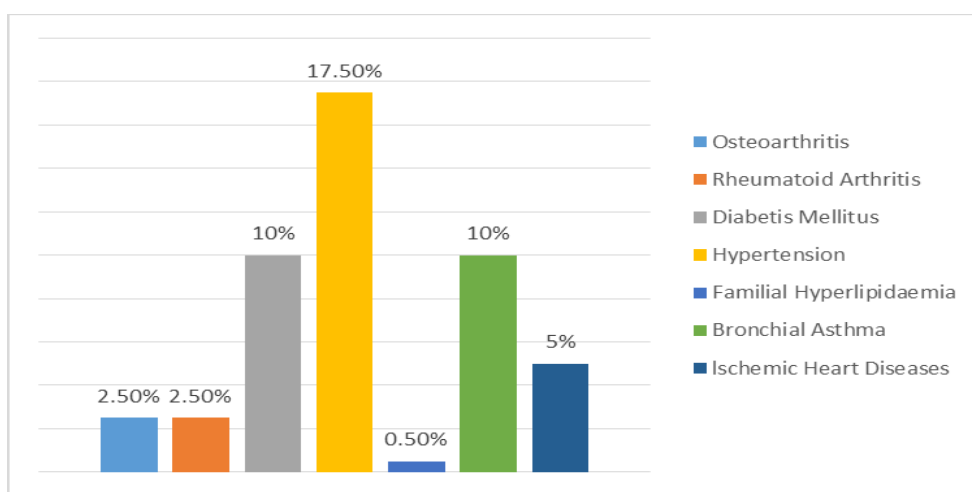


Figure 3: Bar chart of associated diseases of upper abdominal pain

Figure 3 shows HTN is the most common comorbidity (17.5%), 1 case was previously diagnosed as familial

hyperlipidaemia (0.5%). Other common comorbidities are DM (10%), Bronchial asthma (10%), IHD (5%).

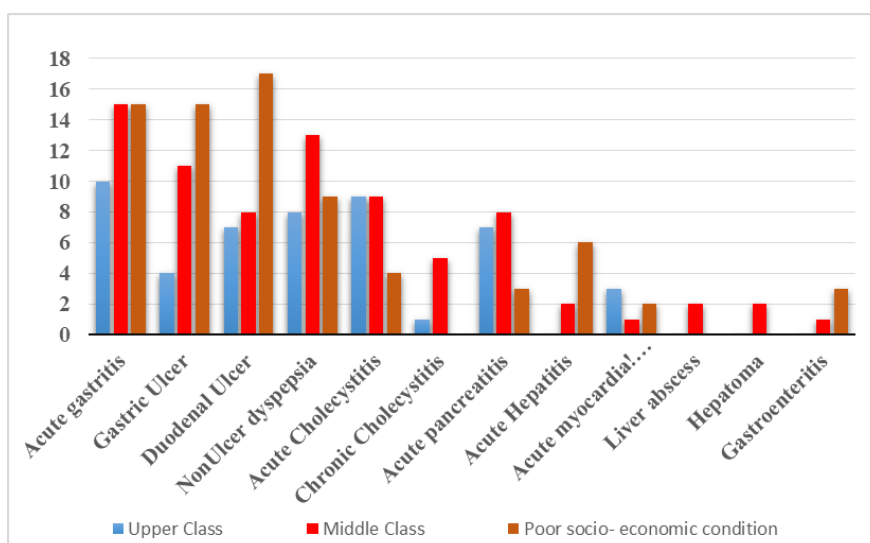


Figure 4: Socio economic distribution with upper abdominal diseases

Figure 4 is showing that out of 200 cases, Poor and middle-class socio-economic category more or less equally affected by the diseases rather than upper class patients. Poor socio economic patients are mostly affected by duodenal ulcer and middle class patients are affected mostly were dyspepsia.

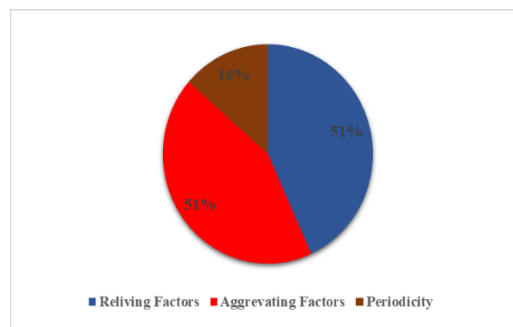


Figure 5: Pie chart of characteristics affecting in abdominal pain

Figure 5 is showing that out of 200 cases the, upper abdominal pain characteristics were mostly depended on reliving and

aggravating factors which are 51% respectively and periodicity factors were found 16% respectively.

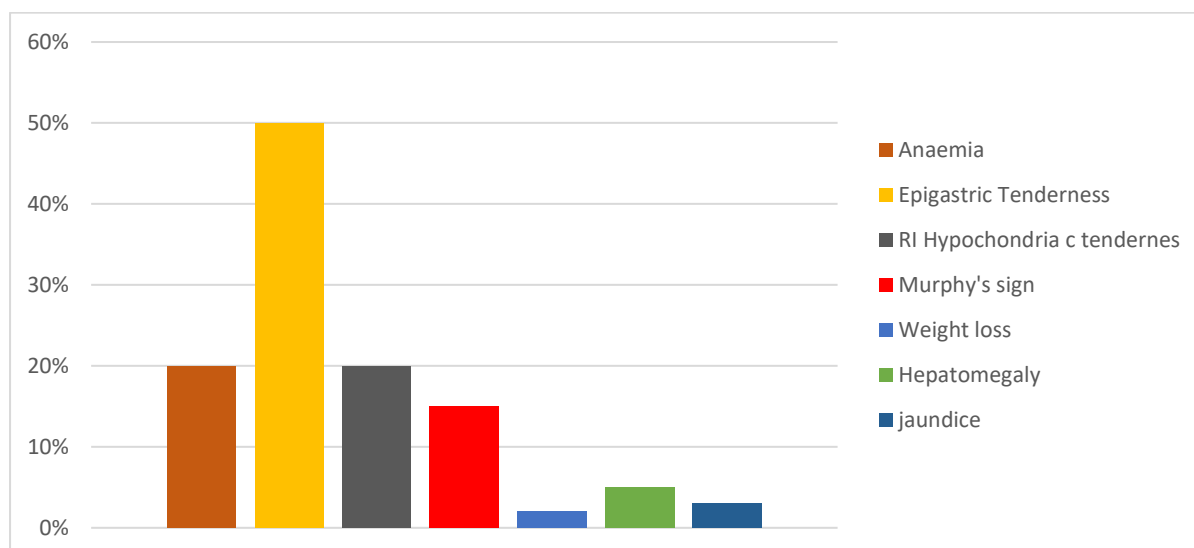


Figure 6: Physical examination of upper abdominal pain

Figure 6 is showing that clinical examination of the present series 22% patient is anaemic, 52% shows epigastric tenderness, positive Murphy's sign found in 14% cases. Rt hypochondriac

tenderness was present in 20% cases. Other less common clinical finding were hepatomegaly (5%), Jaundice (4%) and wt. loss (2.5%).

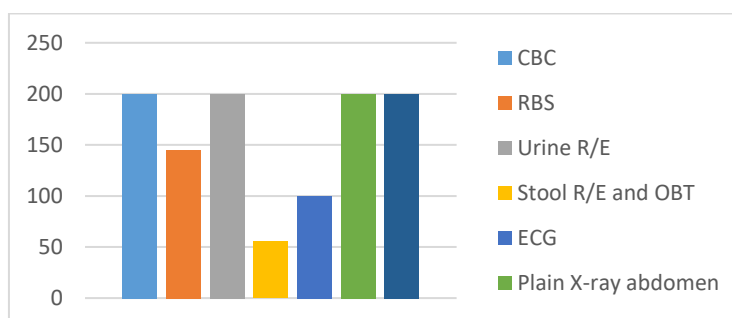


Figure 7: Bar chart of routine investigation report

Figure 7 is showing that in routine investigation report presents, CBC done in all cases and shows reduced hemoglobin in 19.5%, leukocytosis (7%). RBS done in most of the cases (140), and raised in 10.5% cases. Urine R/E done in all patient's and shows no abnormality 2% cases are diagnosed as acute inferior myocardial infarction by ECG and all

other cases specially above 40yrs ECG reveals no abnormality. Stool R/E and OBT done in 0.5% cases and 14% shows positive OBT. Plain X-ray abdomen and CXR P/A view done in all most all cases (100%) and reveals no abnormality. These are done specially to any intestinal Obstruction, or perforations of gas containing hollow viscus.

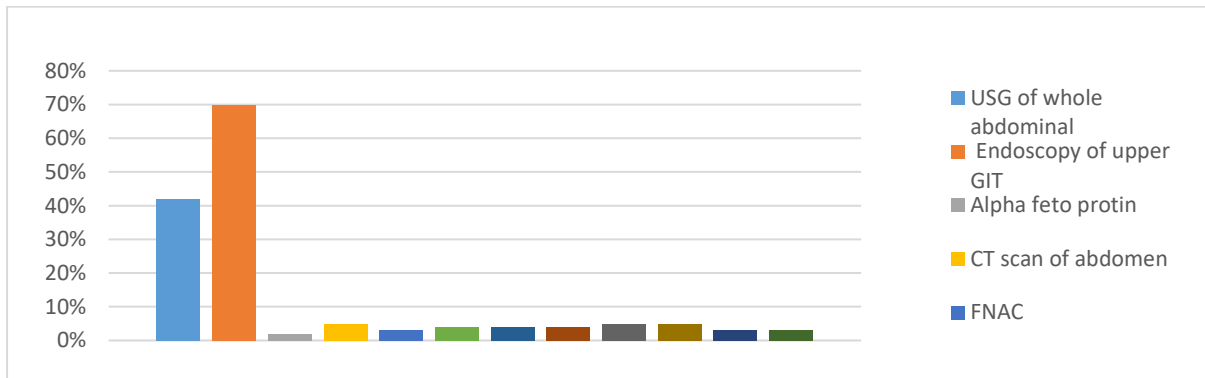


Figure 8: Special Investigation of Abdominal pain

Figure 8 is showing that among special investigations, mostly found endoscopy of upper GIT which represents 70% of the cases and average percentage were found

of USG of whole abdominal and other investigations were particularly used in special cases if that is needed.

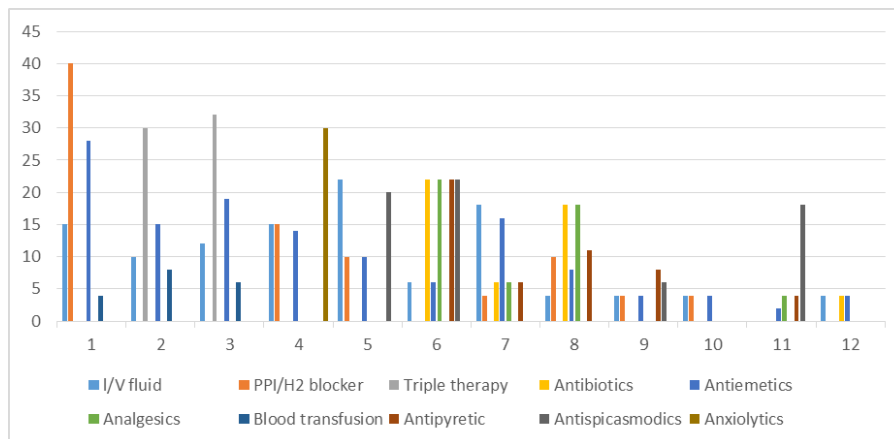


Figure 9: Bar chart of treatment Protocol of Upper abdominal Pain

Figure 9 is showing treatment protocol of this series. In this series I/V fluid was mostly used for the treatment protocol. The other protocol such as PPI/H2 blocker,

triple therapy, antibiotics were also used for the protocol. Antispasmodics were the second most used treatment used for the diseases of upper abdominal pain.

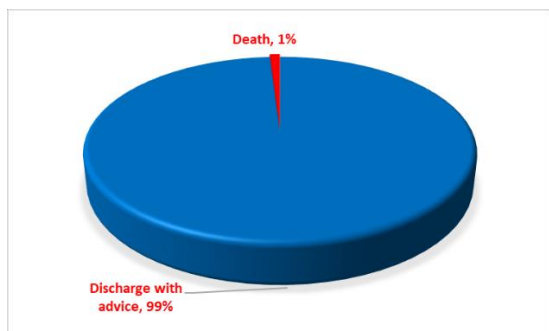


Figure 10: Pie chart of Outcome of the series.

Figure 10 is showing the outcome of the series. In this series out of 200 cases most of the patients were completely cured such as 99% and other and declared as death such as 1%.

DISCUSSION

There is an ongoing debate that whether perforated peptic ulcers should be treated surgically or nonsurgically. Most of the surgeons still prefer surgical option although non-operative treatment has been proved to be both safe and effective in selected patients. It has been estimated that half of the perforation seal by themselves.⁴⁻⁶ Sometimes in routine operation, upper abdominal adhesions have given the evidence that a past perforation was healed without recognition. Thus it has been recognized that a perforation may close spontaneously. The medical admissions with upper abdominal pain were more frequent among the females in contrast to most studies in Bangladesh showing a male preponderance among the hospitalized cases.⁷ This could be due to the acute severity of the symptoms among our cases compelling them to seek hospital admission, whereas in chronic cases, female patients are not admitted unless compelled mostly for socio-cultural reasons and findings could also be in conformity to the saying that “Women experience a greater number of pain episodes their lifespan than men, in more

bodily areas and with greater frequency.⁸ The age groups of the patients are also relatively younger in our series, suggesting that the spectrum of diseases responsible for upper abdominal pain may have predilection for the younger age group females. But as the hospital is a tertiary referral hospital this distribution of age and sex may not truly reflect the community prevalence of the diseases. We observed that the clinical presentation of the cases was more of a typical nature than the atypical presentations. The pain duration, main site of pain, radiation, aggravating and relieving factors of pain were good typical enough to allow a clinical diagnosis of the syndromes at presentation. However, atypical presentations (e.g., acute MI) were also present in the present series. Similarly, the physical signs were also reflective of underlying diseases in most of the cases. So the traditional diseases and physical abdominal examinations for eliciting characteristic signs are appropriate. The presentation of cases with liver abscess was also characteristic and is similar to one study published in American Journal of Medicine; they could confirm their cases with CT scan of the abdomen, which is lacking in most of our hospitals, though we could confirm our cases by finding cystic SOL in liver on abdominal ultrasound.⁹ The symptoms and physical signs were comparable to earlier findings in similar conditions. Though the diagnosis of Duodenal Ulcer and Acute Gastritis could be confirmed relatively easily by Upper GI endoscopy, diagnosis of Nonulcer dyspepsia was a diagnosis of exclusion. In a study evaluating dyspeptic patients, recommended diagnosing Nonulcer dyspepsia on clinical ground, that's are upper abdominal pain, vomiting, fullness, early satiety and bloating and with endoscopy to exclude organic disorders⁽¹⁰⁾. It is estimated that 10% to 15% of the united-states adult population have gallstone, and studies from other western societies describe a prevalence of

5% to 20%. Only minority of patients with gallstones become symptomatic or develops cholecystitis. Irvin in his study on 1109 patient showed acute cholecystitis causes upper abdominal pain in (5.10%) cases. In a study by Iqball, upper abdominal pain due to acute cholecystitis was 4.42%.

CONCLUSION

Abdominal pain remains one of the most common and potentially serious complaints that physician's encounter. Our study showed the strong association between age of the patient, duration of acute illness and outcome. The syndromic diagnosis and empiric followed by definitive treatment and follow up adopting the traditional approach appeared appropriate in the present series. The outcome of the cases was excellent with 1% death and no patient leaving hospital of their own in the present series. Those patients who are selected for discharge home should have a repeat abdominal examination documented, have improvement in their clinical course noted, in most case have a normal imaging study, and be able to tolerate oral nutrition. They should have a timely follow-up evaluation. Finally, the clinician should avoid labeling undifferentiated abdominal pain with a more benign diagnosis, such as gastroenteritis. Patient should be informed that the cause of their symptoms is unclear and they should be given specific instructions regarding signs and symptoms to monitor themselves for or to seek further medical attention.

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