

Endoscopic Findings in Acute Upper Gastrointestinal Bleeding in Al-Ramadi Teaching Hospital

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Abstract:

Background: Upper gastrointestinal bleeding (UGIB) is a common emergency medical condition that may results in high patient morbidity and mortality, its causes are vary from country to country. Upper endoscopy is a safe and easily carried out procedure and consider the diagnostic modality of choice for (UGIB) and also has therapeutic value in some cases.

Aims: The purpose of this study was to evaluate the endoscopic findings in patients presenting with UGIB and its frequency among these patients in our endoscopy unit.

Patients and methods: This study was carried out in Gastroenterology & Hepatology Department of AL-Ramadi Teaching Hospital, from January 2012 to February 2013. 136 patients presenting with upper GI bleeding. Endoscopy was performed on each patient and the findings documented.

Results: The mean age was 46.6 years $\pm$ SD 12.64. years. There were 95 (69.8%) males and 41 (30.2%) females. The most common endoscopic finding was peptic ulcer disease ((44.8%, n=61) 45 patients of them were duodenal ulcer and 16 patients were gastric ulcer), followed by gastritis (13.9%, n=19), esophageal varices (11%, n=15). Gastric erosions were found in 10 patients (7.3%), stomach carcinoma (5.1%, n=7) duodenitis (4.4%, n=6) esophagitis (2.2%, n=3), Mallory-Weis tears (2.2%, n=3), gastric polyp (0.7%, n=1) and (7%, n=9) normal upper GI endoscopy .

Conclusion: In patients with acute upper GI bleeding, the most common endoscopic finding is peptic ulcer disease.

Key words: Endoscopy findings, Upper GU Bleeding

Introduction:

Acute gastrointestinal (GI) bleeding is a potentially life-threatening abdominal emergency that remains a common cause of hospitalization.[1, 2]

Upper gastrointestinal bleeding (UGIB) is defined as bleeding derived from a source proximal to the ligament of Treitz.[3,4]

Bleeding from the upper gastro intestinal tract is approximately 4 times as common as bleeding from the lower gastro intestinal tract with mortality rates from UGIB are 6–10% overall. [5]

Bleeding from the GI tract may present in the form of hematemesis and melena and occasionally in the form of hematochezia (the passage of bright red or maroon blood from rectum).[6]

Although hematochezia generally suggests a lower bleeding source (e.g., colonic), severe upper gastrointestinal bleeding may present with hematochezia in 10% of cases. [7]

The most common presentation of upper gastrointestinal bleeding is hematemesis in 40–50% of cases and melena in up to 70-80% of the cases.[8]

The causes of UGI bleeding are vary from country to country, but in general bleeding from peptic ulcer remains the commonest cause accounting for approximately 50%, of the cases, followed by esophageal varices (14%), and mallory-weis tears (5%).[9]

Upper GI endoscopy has recently been recognized as the standard investigation of choice for patients with upper GI bleeding since it plays a pivotal role in the diagnosis & therapy, reducing mortality, rebleeding, requirement for transfusion, the need for surgery, hospital stay and health care cost.[10]

In 90% of the cases, upper gastrointestinal endoscopy is a relatively safe procedure as several large surveys suggest a risk of serious complication of approximately 1 in 500 & risk of death in approximately one in 10,000.[11]

The objective of this study was to determine the common endoscopic findings in patients with upper gastrointestinal bleeding in patients in Al-Ramadi Teaching Hospital. This study will provide us with local statistics, as only few studies have been done in our population.

Patients and Methods:

We retrospectively analyzed 136 patients who underwent emergency endoscopy for upper GI bleeding at Gastroenterology & Hepatology Department of AL-Ramadi Teaching Hospital from January 2012 to February 2013.

Data were collected from medical records for all patients , including; demographic characteristics, previous peptic ulcer disease, history of NSAIDs intake, history of previous GI and/or liver disease, coexisting medical conditions, passage of dark, tarry stools, bleeding per rectum, vomiting of blood, duration and frequency of hematemesis and melena, degree of pallor, pulse, BP, level of consciousness, stigmata of chronic liver disease, and epigastric mass endoscopic findings, endoscopic intervention, medical and/or surgical management, transfusion requirements, length of hospital stay.

All included patients presenting with haematemesis and or melena who were hemodynamically stable, were subjected to upper GI endoscopy within 24 to 48 hours of first presentation and the endoscopic procedures were performed by

consultant gastroenterologist to detect common endoscopic findings.

Endoscopy was done with endoscope (EG-2985K, PANTEX brand) and all procedures were done by a single operator. Local anesthetic, 4% xylocaine solution, was used for gargles before the procedures.

Endoscopic findings included site and type of lesion were coded & documented on standardized data collection sheet. Biopsy was taken for histopathology as needed.

Ethical approval was obtained from the college medical ethics committee.

Results:

Of 136 patients undergone upper endoscopy, there were 95 (69.8%) males and 41 (30.2%) females.

Their ages ranged from 18 to 78 years with a mean age of 46.6 years. The 40-49 years age group had the highest frequency of 43 patients (31.6%), followed by the 50-59 years age group with 31 patients (22.7%). Other details of the age distribution are shown in (Table-1).

The most common endoscopic finding was peptic ulcer disease ((44.8%, n=61) 45 patients of them were duodenal ulcer and 16 patients were gastric ulcer), followed by gastritis (13.9%, n=19), esophageal varices (11%, n=15).

Gastric erosions were found in 10 patients (7.3%), duodenitis (5.1%, n=7), stomach carcinoma (4.4%, n=6) esophagitis (3.6%, n=5), Mallory-Weiss tears (2.2%, n=3) gastric polyp (0.7%, n=1) and (7%, n=9) normal upper GI endoscopy. (Table -2).

A total of 71 (52.2%) presented with hematemesis, 43 (31.6%) with hematemesis and melena, 19 (13.9%) with melena alone, and 3 (2.2%) with hematochezia alone.

Previous history of peptic ulcer disease was found in 26 patients (19.1%). Underlying medical illnesses were detected in 28 patients (20.5%). Liver disease was present in 13 patients (9.5%); alcohol abuse in 15 (11%); renal disease in 3 (2.2%); other coexisting illnesses in 9 patients (6.6%). Use of nonsteroidal anti-inflammatory drugs (NSAIDs) was reported in 37 patients (27.2%); corticosteroids were being administered to 3 patients (2.2%); 2 were taking anticoagulants (1.4%).

Table 1: The age distribution of the patients (n =136)

Age group (years)	Frequency(%)
≤19	2(1%)
20-29	11(8%)
30-39	23(16.9%)
40-49	43(31.6%)
50-59	31(22.7%)
60-69	19(13.9%)
70-79	7(5.1%)

Table 2: The distribution of endoscopic findings and its frequency.

Endoscopic finding	Number (n=136) (%)
Peptic ulcer	
Duodenal ulcer	45 (33%)
Gastric ulcer	16 (11.7%)
Gastritis	19 (13.9%)
Esophageal varices	15 (11%)
Gastric erosion	10 (7.3%)
Normal upper endoscopy	9 (7%)
Duodenitis	7 (5.1%)
Stomach carcinoma	6 (4.4%)
Esophagitis	5 (3.6%)
Mallory-Weiss tears	3 (2.2%)
Gastric polyp	1 (0.7%)

Discussion:

This study found that, the mean age of the patients who had UGIB was 46.6 years $\pm$ SD 12.64, which is lower than the age reported in western studies [13, 14, 21,25]. This could just be a

reflection of the generally older population of the west.

In contrast to other surveys, the age of the patients was not significantly associated with increased incidence rate in our series.

In this review, males constituted the larger proportion of cases in all age groups. The two-fold increase in the number of males with upper GI bleeding compared to females in the present study is similar to what was reported in other studies [12-15]. the reason for the male predominance in our study might be explained by the higher prevalence of underlying illnesses among males, such as liver disease especially hepatitis B virus, alcohol consumption that is almost confined to men in our city and stressful life due to bad security situations due to the war and accidents at the study time.

Although the peptic ulcer disease and mainly duodenal ulcer were the commonest cause of upper GI bleeding which is in keeping with most western studies conducted elsewhere[13,14]. we did find previous history of peptic ulcer disease was somewhat lower than expected.

This finding may be explained by the fact that a large number of our patients presented with previous signs and symptoms goes with peptic ulcer treated symptomatically without endoscopy.

The high prevalence of *H. pylori* infection in the Iraq and specially Al-Anbar province [16,17] and its definite role in the etiology and pathogenesis of duodenal ulcer [18] ,may explain why the duodenal ulcer were the commonest cause of upper GI bleeding in our city. However, we could not determine the prevalence of the infection in this retrospective study, because tests for *H. pylori* status were not routinely performed in patients with acute upper GI bleeding.

The use of NSAIDs is a well-established risk factor for upper gastrointestinal bleeding [19, 20]. This fact is confirmed by our findings that (27.2%) of all the patients had taken NSAIDS prior to the onset of bleeding.

NSAIDs abuse especially indiscriminate use and purchase of these drugs across the counter has increased the risk of bleeding mainly from erosive mucosal disease and peptic ulcers.

In agreement with other studies [21, 22], the vast majority of the patients presented with haematemesis alone which is at variance with other reports which reported malena as the most common presentation.[23, 24]

The frequency of normal endoscopy in patients presenting with UGI bleeding varies from 9 to 21% between different studies [13] and it was 7% in our study.

In this study it was noted that endoscopy was done as early as possible after resuscitation (on average after 48 hours) but in other studies most patients had endoscopy done after 72hours of initial episode of bleeding, and it's well known that mucosal lesions heal quickly, so as a result a big percent of patients had no source of bleeding identified. That is why our result was lower than other studies.

Limitations of the study:

Our study was done on a smaller number of cases and it was the significant limitation of our study.

Conclusion:

Peptic ulcer disease mainly duodenal ulcer is the commonest cause of upper gastrointestinal bleeding in our studied sample.

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