

A radiological profile of the patients undergoing upper GI endoscopy at tertiary health care centre

Kudlappa Angadi¹, Pooja Patil^{2*}

⁽¹⁾Assistant Professor, Department of Pediatrics} ⁽²⁾Postgraduate, Department of Radiology} Mahadevappa Rampure Medical College, Kalaburagi, 55101, Karnataka, INDIA.

Email: drkumarangadi@gmail.com, pujaop@gmail.com.

Abstract

Introduction: Upper gastrointestinal (GI) bleeding, defined as bleeding derived from a source proximal to the ligament of Treitz, is a common and potentially life-threatening GI emergency with a wide range of clinical severity, ranging from insignificant bleeds to catastrophic exsanguinating hemorrhage. **Aims and Objectives:** Radio-logical profile of the patients undergoing upper GI endoscopy at tertiary health care centre. **Methodology:** This was a cross-sectional study carried at tertiary health care centre referred for Upper GI Endoscopy during one year period from January 2017 to January 2018, in the one year period there were 126 patients referred for the procedure after written and explained consent were undergone Upper GI endoscopy with all aseptic precautions and standard protocols, all patients undergone USG, these were entered to excel sheets and analyzed by Excel software for windows 10. **Result:** In our study we have seen that The average age of the patients was 11.56 ±6.47 Yrs. and range was 1-55 Yrs. (Min –Max). The majority of the patients were Female i.e. 51.59% and Males were 48.41%. The most common provisional diagnosis were Hematemesis under investigation - 22.22%, followed by Mass per abdomen - in 15.87%, Foreign body in 13.49%, Vomiting under investigation in 11.11%, Fever under investigation in 10.32%, Ascitis under investigation in 8.73%, Cirrhosis with portal Hypertension in 5.56%, Upper GI obstruction in 4.76%, Dysphagia under investigation in 4.76%, Malena under investigation in 3.17%. The most common USG findings were Course Ecotexture of Liver - 25.40%, Diffuse Parenchymal Liver - 18.25%, Dilated portal vein with Splenomegaly -10.32%, Dilated portal vein with perifibrosis, massive splenomegaly- 9.52%, Hepatitis with splenomegaly- 8.73%, Hepatomegaly with cirrosis of liver with splenomegaly -5.56%, Hepatomegaly thickened GB with Massive Ascitis - 4.76%, Hepatomegaly with coarse echotexture, nodular surface massive ascitis with Grade I nephropathy - 3.97%, Hepatomegaly with ascitis -3.17%, Mild splenomegaly with paraaortic Lymphadenopathy -3.17%, Dilated stomach, duodenum, Obstruction of IIIrd part of Dudenium - 2.38%, Splenomegaly with Bulky Pancrea, Pleural effusion, Lt Ovarian Cyst, Rt Renal calculi-1.59%. **Conclusion:** It can be concluded from our study that the most common USG findings were Course Ecotexture of Liver, Diffuse, Parenchymal Liver, Dilated portal vein with Splenomegaly Dilated portal vein with perifibrosis, massive splenomegaly- Hepatitis with splenomegaly, Hepatomegaly with cirrosis of liver with splenomegaly etc. this sonographic evaluation is useful for diagnosis and management of the patients.

Key Word: Upper GI endoscopy, Upper gastrointestinal (GI) bleeding, USG-Abdomen

*Address for Correspondence:

Dr. Pooja Patil, Postgraduate, Department of Radiology, Mahadevappa Rampure Medical College, Kalaburagi, 55101, Karnataka, INDIA.

Email: pujaop@gmail.com, drkumarangadi@gmail.com.

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INTRODUCTION

Upper gastrointestinal (GI) bleeding, defined as bleeding derived from a source proximal to the ligament of Treitz, is a common and potentially life-threatening GI emergency with a wide range of clinical severity, ranging from insignificant bleeds to catastrophic exsanguinating hemorrhage,¹ and is associated with significant morbidity and mortality.² The incidence of upper GI bleed ranges from 50 to 150/100,000 population annually, and time trend analyses suggest that aged people constitute an

increasing proportion of those presenting with acute upper GI bleed.³ As many as 70% of acute upper GI bleed episodes occur in patients older than 60 years,⁴ and the incidence increases with age⁵ probably because of the increased consumption of nonsteroidal anti-inflammatory drugs (NSAIDs), which provoke ulcerogenesis, in elderly patients. About two-thirds of all patients presenting to the emergency department with GI bleed have upper GI bleed as the cause.⁶ Patients can be divided as having either variceal or nonvariceal sources of upper GI hemorrhage as the two have different management protocols and prognosis.⁷ The first includes lesions that arise by virtue of portal hypertension, namely, gastroesophageal varices and portal hypertensive gastropathy; and the second includes

lesions seen in the general population (peptic ulcer, erosive gastritis, reflux esophagitis, Mallory–Weiss syndrome, tumors, etc.).

METHODOLOGY

This was a cross-sectional study carried at tertiary health care centre referred for Upper GI Endoscopy during one year period from January 2017 to January 2018, in the one year period there were 126 patients referred for the procedure after written and explained consent were undergone Upper GI endoscopy with all aseptic precautions and standard protocols, all patients undergone USG, these were entered to excel sheets and analyzed by Excel software for windows 10.

RESULT

Table 1: Distribution of the patients as per the age

Age	Mean ± SD
Average age (Yrs.)	11.56 ±6.47
Range (Yrs.)	1-55

The average age of the patients was 11.56 ±6.47 Yrs. and range was 1-55 Yrs. (Min –Max)

Table 2: Distribution of the patients as per the sex

Sex	No.	Percentage (%)
Male	61	48.41
Female	65	51.59
Total	126	100.00

The majority of the patients were Female i.e. 51.59% and Males were 48.41%.

Table 5: Distribution of the patients as per the Provisional diagnosis

Provisional diagnosis	No.	Percentage (%)
Hematemesis under investigation	28	22.22
Mass per abdomen	20	15.87
Foreign body	17	13.49
Vomiting under investigation	14	11.11
Fever under investigation	13	10.32
Ascitis under investigation	11	8.73
Cirrhosis with portal Hypertension	7	5.56
Upper GI obstruction	6	4.76
Dysphagia under investigation	6	4.76
Malena under investigation	4	3.17
Total	126	100.00

The most common provisional diagnosis were Hematemesis under investigation - 22.22%, followed by Mass per abdomen - in 15.87%, Foreign body in 13.49%, Vomiting under investigation in 11.11%, Fever under investigation in 10.32%, Ascitis under investigation in 8.73%, Cirrhosis with portal Hypertension in 5.56%, Upper GI obstruction in 4.76%, Dysphagia under investigation in 4.76%, Malena under investigation in 3.17%.

Table 4: Distribution of the patients as per the USG findings

USG findings	No.	Percentage (%)
Course Ecotexture of Liver	32	25.40
Diffuse Parenchymal Liver	23	18.25
Dilated portal vein with Splenomegaly	13	10.32
Dilated portal vein with perifibrosis, massive splenomegaly	12	9.52
Hepatitis with splenomegaly	11	8.73
Hepatomegaly with cirrosis of liver with splenomegaly	7	5.56
Hepatomegaly thickenend GB with Massive Ascitis	6	4.76

Hepatomegaly with coarse echotexture , nodular surface massive ascitis with Grade I nephropathy	5	3.97
Hepatomegaly with ascites	4	3.17
Mild splenomegaly with paraaortic Lymphadenopathy	4	3.17
Dilated stomach ,duodenum,Obstruction of IIIrd part of Dudenium	3	2.38
Splenomegaly with Bulky Pancrea, Pleural effusion	2	1.59
Lt Ovarian Cyst	2	1.59
Rt Renal calculi	2	1.59
Total	126	100.00

The most common USG findings were Course Ecotexture of Liver - 25.40%, Diffuse Parenchymal Liver - 18.25%, Dilated portal vein with Splenomegaly - 10.32%, Dilated portal vein with perifibrosis, massive splenomegaly- 9.52% , Hepatitis with splenomegaly-8.73%, Hepatomegaly with cirrhosis of liver with splenomegaly - 5.56%,Hepatomegaly thickenend GB with Massive Ascitis - 4.76%, Hepatomegaly with coarse echotexture , nodular surface massive ascitis with Grade I nephropathy - 3.97%, Hepatomegaly with ascitis - 3.17%, Mild splenomegaly with paraaortic Lymphadenopathy - 3.17%, Dilated stomach ,duodenum,Obstruction of IIIrd part of Dudenium - 2.38%, Splenomegaly with Bulky Pancrea, Pleural effusion , Lt Ovarian Cyst , Rt Renal calculi-1.59%.

DISCUSSION

Gastrointestinal (GI) bleeding is a frequent cause of doctor consultations and hospital admissions. In upper GI bleeding, endoscopy has been established as the first-line diagnostic tool, and many therapeutic modalities have been developed.⁸⁻¹² Methods of diagnosing lower GI bleeding include nuclear scintigraphy, mesenteric angiography and colonoscopy, but a single standard method has not been established because each has inherent advantages and disadvantages.¹²⁻¹⁴ The sonomorphologic appearance of bowel wall thickening in patients with acute or chronic disorders of the gut was recently evaluated for its value in the diagnosis of inflammatory bowel disease, ischaemic colitis, infectious colitis and malignant bowel tumours, and other bowel diseases.¹⁴⁻¹⁵ Transabdominal ultrasound (US) is a non-invasive and repeatable imaging study that can be performed easily without bowel preparation. In our study we have seen that The average age of the patients was 11.56 ±6.47 Yrs. and range was 1-55 Yrs. (Min –Max). The majority of the patients were Female i.e. 51.59% and Males were 48.41%. The most common provisional diagnosis were Hematemesis under investigation - 22.22%, followed by Mass per abdomen - in 15.87%, Foreign body in 13.49%, Vomiting under investigation in 11.11%, Fever under investigation in 10.32%, Ascitis under investigation in 8.73%, Cirrhosis with portal Hypertension in 5.56%, Upper GI obstruction in 4.76%, Dysphagia under investigation in 4.76%, Malena under investigation in 3.17%. The most common USG findings

were Course Ecotexture of Liver - 25.40%, Diffuse Parenchymal Liver - 18.25%, Dilated portal vein with Splenomegaly -10.32%, Dilated portal vein with perifibrosis, massive splenomegaly- 9.52% ,Hepatitis with splenomegaly-8.73%, Hepatomegaly with cirrhosis of liver with splenomegaly -5.56%,Hepatomegaly thickenend GB with Massive Ascitis - 4.76%, Hepatomegaly with coarse echotexture, nodular surface massive ascitis with Grade I nephropathy - 3.97%, Hepatomegaly with ascitis - 3.17%, Mild splenomegaly with paraaortic Lymphadenopathy - 3.17%, Dilated stomach ,duodenum, Obstruction of IIIrd part of Dudenium - 2.38%, Splenomegaly with Bulky Pancrea, Pleural effusion , Lt Ovarian Cyst , Rt Renal calculi-1.59%.

CONCLUSION

It can be concluded from our study that the most common USG findings were Course Ecotexture of Liver, iffuse, Parenchymal Liver, Dilated portal vein with Splenomegaly, Dilated portal vein with perifibrosis, assivesplenomegaly- Hepatitis with splenomegaly, Hepatomegaly with cirrhosis of liver with splenomegaly etc. this sonographic evaluation is useful for diagnosis and management of the patients.

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