


ORIGINAL ARTICLE**UPPER GASTRO INTESTINAL ENDOSCOPIC LESIONS IN PATIENTS WITH HEPATITIS C**Kumar A¹, Goyal S¹, Bhardwaj H², Bhardwaj BL³, Jain P³, Jaura S³, Singla G³Assistant Professor¹, Professor², Resident³, Department of Medicine, Government Medical College, Patiala, Punjab, India**ABSTRACT:**

Background: Hepatitis C is a huge burden on health care system. This study describes different types of lesions that can be found in patients with hepatitis C undergoing UGI endoscopy. **Methods:** Thirty consecutive patients with hepatitis C who came for UGI endoscopy for varied indications in the Endoscopy Room, Government Medical College Patiala, from January 1, 2016 onwards were included in this study. **Results:** The lesions were both, associated with portal hypertension and not associated with portal hypertension. Out of 30 patients who underwent UGI endoscopy, in the esophagus 22(73.33%) patient had lesions associated with portal hypertension and 2(6.67%) not associated with portal hypertension, in the stomach 11(36.67%) lesions were associated with portal hypertension and 7(23.33 %) lesions not associated with portal hypertension, and in the duodenum no lesion was found to be associated with portal hypertension and 2(6.66%) lesions were not associated with portal hypertension. **Conclusions:** This study has revealed that not only lesions associated with portal hypertension but also the lesions not associated with portal hypertension can be seen on UGI endoscopy in patients with Hepatitis C.

Key words: Cherry red spot, Gastric antral vascular ectasia, Esophageal varices, Portal hyperetensive gastropathy

Corresponding author: Dr. Kumar A, Assistant Professor, Department of Medicine, Government Medical College, Patiala, Punjab, India

This article may be cited as: Kumar A, Goyal S, Bhardwaj H, Bhardwaj BL, Jain P, Jaura S, Singla G. Upper gastro intestinal endoscopic lesions in patients with hepatitis C. J Adv Med Dent Sci Res 2017;5(2):64-66.

Access this article online	
Quick Response Code 	Website: www.jamdsr.com
	DOI: 10.21276/jamdsr.2017.5.2.16

INTRODUCTION:

Chronic hepatitis C is a global health challenge, affecting an estimated 130-150 million worldwide.¹ Despite a low to moderate (1-1.5%) prevalence of hepatitis C, India accounts for a significant share of global hepatitis C virus (HCV) infections due to the large population. Approximately 12-18 million Indians are infected with HCV. About 3% of the world's population and its incidence peaks in subjects aged over 40 years.²

Upper gastrointestinal (UGI) endoscopy does not play significant part in diagnosis of acute or chronic hepatitis C but can diagnose liver cirrhosis associated with HCV infection. Changes in GI tract are observed in upto 87% of the patients. These changes can be divided into: a) not associated with portal hypertension and b) those associated with portal hypertension. The most observed lesion not associated with portal hypertension include: reflux esophagitis, esophageal candidiasis; different variants of gastritis, gastric ulcer and duodenal ulcer. Various endoscopic changes associated with portal hypertension are: esophageal varices, gastric varices, portal gastropathy (PHG), portal enteropathy, portal colopathy, and gastric antral vascular ectasia (GAVE).³

METHODS: This study was conducted at Government Medical College, Patiala. The study was conducted during the period of January 1, 2016 onwards. Thirty consecutive patients with hepatitis C who came in Endoscopy room for varied indications requiring UGI endoscopy, were included in this study. Upper GI endoscopic examination was done in usual manner and various lesions detect during procedure were categorized into: a) lesions associated with portal hypertension and b) those not associated with portal hypertension.

RESULTS:

Patients consisted of 20 (66.67%) males and 10 (33.33%) females. Mean age was 51.36 years and the range was 26-77 years. Analysis showed that 3(10%) patients were less than 40 years of age, 9 (30%) patients were between 40-49 years, 9(30%) patients were 50-59 years, and 9(30%) patients were above 60 years of age.

The lesions were both, associated with portal hypertension and not associated with portal hypertension. Out of 30 patients who underwent UGI endoscopy, in the esophagus 22(73.33%) patients had lesions associated with portal hypertension, 2(6.67%) patients had lesions not associated with portal hypertension and 6 (20%) patients had normal esophagus. In the stomach 11 (36.67%) patients had lesions associated with portal

hypertension, 7(23.33%) patient had lesions not associated with portal hypertension, and 12 (40%) patients did not have any lesion. In the duodenum no patient had lesions associated with portal hypertension and 2(6.66%) patients had lesions not associated with portal hypertension while rest (93.33%) of the patients had normal duodenum.

Esophageal mucosal lesions include: esophageal varices in 18 (60%) patients, CRS in 3(10%) patients, RWS in 1 (3.33%) patient, candidiasis in 1 (3.33%) patient, and 1 (3.33%) patient had concentric malignant stricture measuring 8 cm in length. Gastric lesions were seen as PHG in 9(30%) patients, IGV in 1 (3.33%) patient, gastro esophageal varices (GOV) in 1 (3.33%) patient, antral gastritis in 1 (3.33%) patients, gastritis in 3 (10%) patients, gastric erosion in 1(3.33%) patient, and erosion in antrum in 1 (3.33%) patient, 1(3.33%) patient had volvulus of stomach. Duodenal lesions were seen as large duodenal ulcer in 1 (3.33%) patient, reduced duodenal folds in 1 (3.33%) patient and in 1 (3.33%) patient duodenum could not be reached due to volvulus. (Fig.1-9).

So in the total 30 patients who underwent UGI endoscopy, 44 lesions were found. Out of 44 lesions, 33 (75%) lesions were associated with portal hypertension and 11 (25%) lesions were not associated with portal hypertension. Out 33 lesions that were associated with portal hypertension, 22 (66.67%) were found in the esophagus, 11 (33.33%) were found in the stomach and none was found in the duodenum. Out 11 lesions that were not associated with portal hypertension, 2 (18.18%) were present in the esophagus, 7 (63.63%) were present in the stomach and 2 (18.18%) were present in the duodenum.

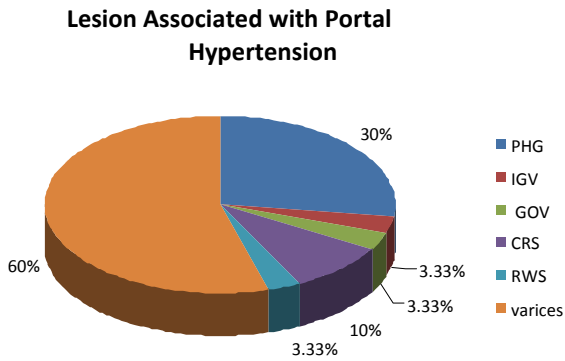


Figure 1: Lesion Associated with Portal Hypertension

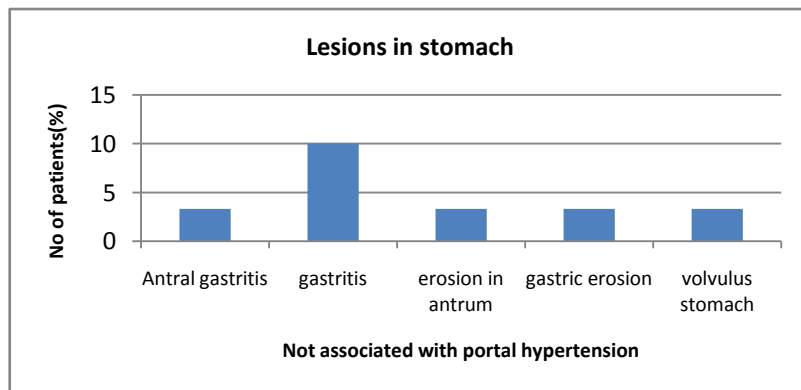


Figure 7: Lesions in Stomach not associated with Portal Hypertension

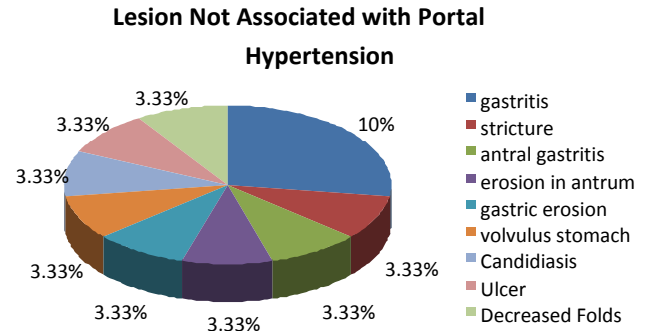


Figure 2: Lesion not associated with portal hypertension

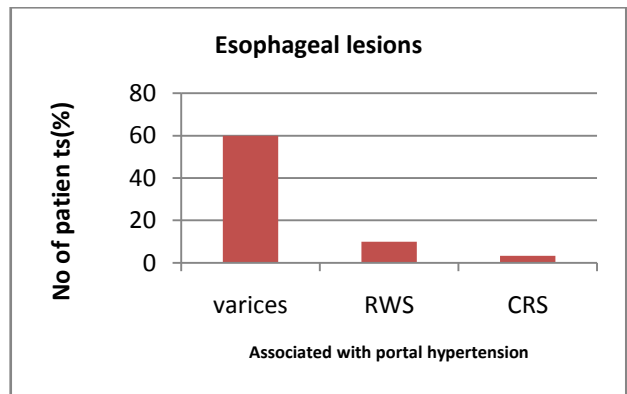


Figure 5: Esophageal lesions associated with portal hypertension

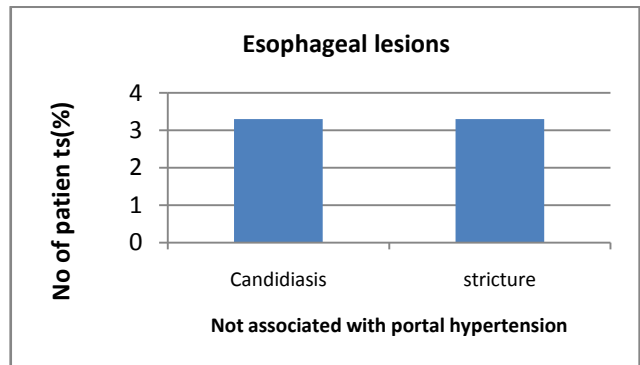


Figure 6: Esophageal lesions not associated with portal hypertension

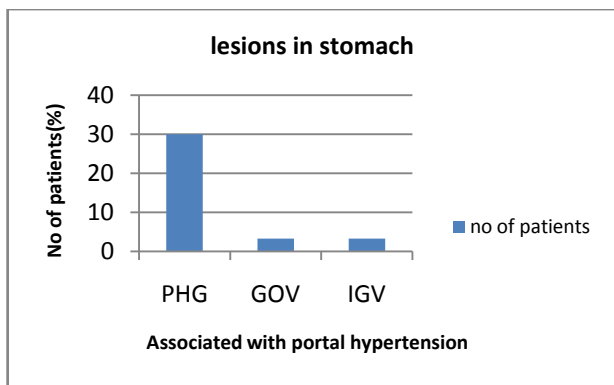


Figure 8: Lesions in Stomach Associated with Portal Hypertension

DISCUSSION:

In our study, oesophageal varices were the most common lesions detected. Lesions not associated with portal hypertension were more detected in the stomach. One of the studies has shown different types of lesions in patients with liver cirrhosis during Upper Gastro Intestinal Endoscopy as esophageal erosions (7.1%), ulcer (1.8%), candidiasis (8.9%), gastric varices (19.6%), PHG (80.4%), gastric erosions (12.5%), gastric ulcers (10.7%), duodenitis (1.8%), duodenal erosions (1.8%), duodenal ulcers (7.1%).⁴ Another study says that esophageal and gastric varices are common manifestations of advanced chronic liver disease, but other endoscopic gastrointestinal manifestations of portal hypertension may occur.⁵ Wu *et al* described the correlation between peptic ulcer disease and cirrhosis. Both duodenal and gastric ulcers were more common in cirrhosis and the reported prevalence was 24.1%.⁶ It was recognized that prevalence of gastric ulceration increases with the severity of liver disease and is related to changes in the hepatic venous pressure gradient.⁷ High prevalence of *H.pylori* upto 89%, in patients with cirrhosis has been reported.⁸ *H.pylori* infection increases the risk for peptic ulcer disease in cirrhosis.⁹ *H.pylori* eradication therapy is effective in chronic liver disease.¹⁰ However, two recent studies have suggested that *H. pylori* eradication in cirrhotic patients with duodenal ulcers is not as effective at reducing ulcer recurrence as it is in the general population. These patients require maintenance acid suppression therapy.^{11,12} Gastroesophageal varices are present in >50% of patients with portal hypertension and are more likely as liver disease progresses.¹³ Portal hypertensive gastropathy (PHG), with its typical snake skin appearance is present in approximately 80% of patients with liver disease, although this condition more commonly presents with anemia.¹⁴ Gastric antral vascular ectasia (GAVE) is related to portal hypertension in about 30% of patients, and accounts for 4% of nonvariceal UGI bleeds.¹⁵

CONCLUSIONS:

This study has enumerated different pattern of lesions that can be seen on UGI endoscopy in patients with Hepatitis C. This study has revealed that lesions both, associated with portal hypertension and not associated with portal hypertension can be seen on UGI endoscopy in patients with Hepatitis C. Esophagus had the maximum number of lesions associated with portal hypertension followed by stomach. Stomach had the maximum number of lesions not associated with portal hypertension. However further studies are needed to strengthen the database.

REFERENCES:

1. World Health Organisation: Draft global health sector strategy on viral hepatitis, 2016-2021 - the first of its kind.Draft;13.11.15.
2. Dhiman RK. Future of therapy for Hepatitis C in India: A Matter of Accessibility and Affordability? Journal of Clinical and Experimental Hepatology. | June 2014 | Vol. 4 | No. 2 | 85-86
3. Simon K, et al., “Endoscopy in the diagnosis of chronic hepatitis c—diagnosis and therapy depending on the phase of the disease progression and liver regeneration”, *PrzegEpidemiol*, 2002, Vol 56, Suppl5, pp 26-34.
4. Akere A, et al., “Upper gastrointestinal endoscopy in patients with liver cirrhosis: Spectrum and prevalence of lesions”, *Ann Trop Med Public Health*, 2016; Vol 9, Issue 2, pp112-118.
5. Cheung R, et al., “ Endoscopic gastrointestinal manifestation of liver disease”, *GastrointestEndoscClin N Am*, 2001 Jan, Vol 11(1), pp 15-44.
6. Wu CS, Lin CY, Liaw YF. Helicobacter pylori in cirrhotic patients with peptic ulcer disease: a prospective, case controlled study. *GastrointestEndosc* 1995; 42: 424-427
7. Chen LS, Lin HC, Hwang SJ, Lee FY, Hou MC, Lee SD. Prevalence of gastric ulcer in cirrhotic patients and its relation to portal hypertension.. *J GastroenterolHepatol*. 1996; 11: 59-64
8. Pellicano R, Leone N, Berrutti M, Cutufia MA, Fiorentino M, Rizzetto M, Ponzetto A. Helicobacter pylori seroprevalence in hepatitis C virus positive patients with cirrhosis. *J Hepatol* 2000; 33: 648-650
9. Vergara M, Calvet X, Roqué M. Helicobacter pylori is a risk factor for peptic ulcer disease in cirrhotic patients. A metaanalysis. *Eur J GastroenterolHepatol* 2002; 14: 717-722
10. Jung SW, Lee SW, Hyun JJ, Kim DI, Koo JS, Yim HJ, Park JJ, Lee HS, Chun HJ, Um SH, Choi JH, Kim CD, Ryu HS.Efficacy of Helicobacter pylori eradication therapy in chronic liver disease. *Dig Liver Dis* 2009; 41: 134-140
11. Lo GH, Yu HC, Chan YC, Chen WC, Hsu PI, Lin CK, Lai KH. The effects of eradication of Helicobacter pylori on the recurrence of duodenal ulcers in patients with cirrhosis.*GastrointestEndosc* 2005; 62: 350-356
12. Tzathas C, Triantafyllou K, Mallas E, Triantafyllou G, Ladas SD. Effect of Helicobacter pylori eradication and antisecretory maintenance therapy on peptic ulcer recurrence in cirrhotic patients: a prospective, cohort 2-year follow-up study. *J ClinGastroenterol* 2008; 42:744-749
13. Kovalak M, Lake J, Mattek N, Eisen G, Lieberman D, Zaman A. Endoscopic screening for varices in cirrhotic patients: data from a national endoscopic database. *GastrointestEndosc* 2007; 65: 82-88
14. Burak KW, Lee SS, Beck PL. Portal hypertensive gastropathy and gastric antral vascular ectasia (GAVE) syndrome. *Gut* 2001; 49: 866-872
15. Selinger CP, Ang YS. Gastric antral vascular ectasia (GAVE): an update on clinical presentation, pathophysiology and treatment. *Digestion* 2008; 77:131-137

Source of support: Nil **Conflict of interest:** None declared
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