

Abstract

Background: Portal hypertension is the increase in portosystemic pressure gradient in any portion of the portal venous system. The portosystemic gradient is assessed by measuring the wedged hepatic venous pressure (a measure of sinusoidal hepatic pressure) and subtracting the free hepatic venous pressure (systemic pressure) thus obtaining the hepatic venous pressure gradient (HVPG).

Aim of the Work: To describe different patterns of portal hypertensive gastrointestinal vasculopathy in patients with liver cirrhosis. To identify the relationship between these different patterns and the clinical, laboratory and imaging findings in those patients.

Methodology: This cross sectional study was performed at Ain Shams University Hospital and Ahmed Maher Teaching Hospital. Two hundred patients with evidence of liver cirrhosis were recruited consecutively among those attending the outpatient clinics or admitted at the Tropical Medicine Department at Ain Shams University Hospital and Hepatology department at Ahmad Maher Teaching Hospital in the period from May 2014 to January 2016.

Results: This study was conducted in tropical medicine department at Ain Shams university hospital, and hepatology and tropical medicine department at Ahmed Maher teaching hospital. Two hundred patients with liver cirrhosis were recruited in this study.

Conclusion: Large EV are related to more advanced liver disease, lower platelet and WBC count, and high portal hypertension Doppler parameters. Similarly, severe PHG is more prevalent in higher Child score, and is associated with higher portal hypertension and congestion indices, and lower portal vein flow velocity.

Recommendations: More studies are needed on use of the ultrasonographic Doppler as a non-invasive predictor of different portal hypertensive GIT vasculopathy in patients with liver cirrhosis.

Colonoscopy can be advised for cirrhotic patients having large esophageal varices, to detect rectal varices and other portal hypertensive colopathy lesions, which may be a source of lower GI bleeding in those patients.

Keywords: Clinical, Endoscopic, Ultrasonographic Doppler, Hypertensive Gastrointestinal, Egyptian Cirrhotic Patients

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List of Abbreviations

Abbrev.	Meaning
BRTO	Balloon-occluded retrograde transvenous obliteration
CBC	Complete blood count
CI	Congestion Index
CSA	Cross-sectional area
CT	Computed Tomography
EGD	Esophago-Gastro-Duodenoscopy
EUS	Endoscopic ultrasound
EV	Esophageal varices
EVL	Endoscopic variceal ligation
FHVP	Free hepatic vein pressure
GAVE	Gastric antral vascular ectasia
GOV-1	Gastroesophageal varices-1
GOV-2	Gastroesophageal varices-2
GV	Gastric varices
HAPI	Hepatic Artery Pulsatility Index
Hb	hemoglobin
HREV	High risk esophageal varices
HVPG	Hepatic venous pressure gradient
IGV	Isolated gastric varices
LVI	liver vascular index
MELD	Model for End-stage Liver Disease
MRI	Magnetic resonance imaging
NCPH	Non-cirrhotic portal hypertension
PHC	Portal hypertensive colopathy
PHD	Portal hypertensive duodenopathy
PHG	Portal hypertensive gastropathy

List of Abbreviations

PHGIV	portal hypertensive gastrointestinal vasculopathy
PHIV	portal hypertensive intestinal vasculopathy
PHT Index	Portal Hypertensive Index
PLT	Platelets
PT	Prothrombin time
PV	Portal vein
PVV	Portal vein flow velocity
RCT	Randomized controlled trial
RI	Resistance index
TB	Total bilirubin
TE	Transient elastography
TIPS	Transjugular intrahepatic portosystemic shunt
TNF-α	Tumor necrosis factor α
VEGF	vascular endothelial growth factors
WBCs	White blood cells
WHVP	Wedge hepatic vein pressure

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Introduction





Aim of the Work





Review of Literature





CHAPTER (1)

Portal Hypertension





CHAPTER (2)

Vasculopathy

