Study of the Lower Gastrointestinal Endoscopic Findings in Cirrhotic Patients with Portal Hypertension

Thesis

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By

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Dina Saeed Ibrahim

Abstract

In patients with liver cirrhosis and portal hypertension, portal hypertensive colopathy is thought to be an important cause of lower gastrointestinal hemorrhage.

Aim of work: In this study, we evaluated the prevalence of colonic mucosal changes in patients with liver cirrhosis and its clinical significance.

Methods: We evaluated the colonoscopic findings of 35 patients with liver cirrhosis and portal hypertension. All patients underwent upper GIT endoscopy to detect the presence of gastroesophageal varices, and congestive gastropathy, as well as a full colonoscopy to detect changes in colonic mucosa with endoscopic biopsy from any lesion.

Results: Colonic lesions were found in 27 patients (77.1%), including hemorrhoids in 20 patients (57.1%), diffuse hyperaemic colonic mucosa in 16 patients (45.7%), angiodysplastic lesions in 12 patients (34.3%) and rectal varices in 5patients (14.3%). Bleeding per rectum was detected in 7patients (20%), significant correlation between rectal bleeding and the presence of hemorrhoids, has been found in this study. The prevalence of portal hypertensive colopathy increased with worsening Child-Pugh class and also the presence of hemorrhoids increased with worsening Child-Pugh class. Colonic hyperemia but not

portal hypertensive colopathy was statistically correlated with gastroesophageal varices. The presence of rectal varices and angiodysplasia was not related to concentration of hemoglobin. No significant correlation between sex and presence of portal colopathy.

Key words: Portal hypertension – Colopathy.

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List of abbreviation

A:	Cross sectional area
ANG II:	Angiotensin II
ANP:	Atrial natriuretic peptide
AT 1:	Angiotensin receptor 1
CO2:	Carbon dioxide
CO:	Carbon monoxide
C GMP:	Cyclic Guanosine Monocyclase
CNS:	Central nervous system
CSPH:	Clinically significant portal hypertension
CI:	Congestion Index of the Portal Vein
CTGF:	Connective tissue growth factor
C.T.:	Computerized tomography
EDRF:	Endothelin derived growth factor
EIS:	Endoscopic injection sclerotherapy
ET-1:	Endothelin-1
ETA:	Endothelin type A receptor
ETB:	Endothelin type B receptor
ET-A-R:	Endothelin receptor antagonist
EUS:	Endoscopic ultrasound
EVL:	Endoscopic variceal ligation
FHVP:	Free hepatic venous pressure
GOVs:	Gastro-oesophageal varices
GEDS:	Gastro-oesophageal decongestion and splenectomy

HCV: Hepatitis C virus

HGF: Hepatocyte growth factor

HSC: Hepatic stellate cells

HAI: Knodell

HCT: Heamatocrete value

HVPG: Hepatic venous pressure gradient

IGVs: Isolated gastric varices

IHVR: Intrahepatic vascular resistance

iNOS: Inducible form of NOS

IVC: Inferior vena cava

IMN: Isosorbide mononitrate

IL-1: Interleukin-1

IF-γ: Gamma interferron

IV: Intravenous

LGV: Left gastric vein

LPS: Lipopolysaccharide

L/ min.: Litre/ minute

MRA: Magnetic resonance angiography

MELD: Model of end stage liver disease

MMP-2: Metalloproteinase 2

NIEC: North Italian endoscopic Club

N/e NOS: Neuronal /endothelial nitric oxide synthase.

NO: Nitric oxide

PDGF: Platelet Derived Growth Factor

PG: Prostaglandins

PF: Portal fibroblast/ platelet factor

PHC: Portal hypertensive colopathy

PHG: Portal hypertensive gastropathy

PHT: Portal hypertension

PSS: Portosystemic shunts

P.V.: Portal vein

PVF: Portal vein flow

PVL: Portal vein ligation

PIGF: Placental growth factor

RAAS: Renin angiotensin activating system

RCTs: Randomized controlled trials

SI: Splenic index

SMV: Superior mesnteric vein

S.V.: Splenic vein

TGF: Transforming growth factor

TIMPs: Tissue inhibitor metalloproteins

TIPS: Transjugular intrahepatic portosystemic shunts

TPA: Tissue plasminogen activator

UPA: Uroplasminogen activator

UII: Urotensin II

VEGF: Vascular endothelial growth factor

WHVP: Wedged hepatic venous pressure