

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

Thesis

submitted in partial fulfillment of Master Degree in Tropical Medicine

By

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2009**

Acknowledgement

First of all, Thanks to GOD, without his will, nothing could have been achieved.

My gratitude to Prof. Dr. Zakaria Abdel-Latif Salama, Professor of Tropical Medicine & Hepatology, Cairo University, for his support and endless advices and help. I wish one day to have his way of thinking and part of his perfectionism and part of his knowledge.

My deep thanks and appreciation to Dr. Ahmad Nabil Lotfy Hassan, Lecturer of Tropical Medicine & Hepatology, Cairo University, for his strict supervision and revision of this work. He gave me much of his time, experience and support, his valuable comments, efforts and collaboration were the causes to complete this work properly, so no words can express my gratitude to him.

I would like to thank Dr. Samar Kamal Ahmad Darweesh, Lecturer of Tropical Medicine & Hepatology, Cairo University, for her effort, time, kindness, and generous help, without her help this work could not be done.

I would like to thanks my family for their endless support and care for my whole life. They were always helping and encouraging me to continue and finish this work. I really owe to them so much.

Last, but certainly not least, I owe to the patients included in this study. May God alleviate their sufferings and may all our efforts be just for their own benefit.

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 5 patients (14.3%). Bleeding per rectum was detected in 7 patients (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
CO ₂ :	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:	Heamatocrite 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 mesenteric 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