Comparative Study between Partial Obliteration and Complete Eradication of Esophageal Varices by Injection Sclerotherapy: Outcome & Complications

Thesis

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List of Abbreviations

BBSs	Black-Brown Spots
BRTO	Balloon-Occluded Retrograde Transvenous Obliteration
CCDS	Color Coded Doppler Sonography
CI	Congestion Index
CRSs	Cherry Red Spots
CSA	Cross Sectional Area
CT Scan	Computerized Tomographic Scan
D	Vein Diameter
DR	Diffuse Redness
EAO	Ethanolamine Oleate
ECG	Electro Cardiogram
EIS	Endoscopic Injection Sclerotherapy
EST	Endoscopic Sclero-Therapy
ET-1	Endothelin-1
EUS	Endoscopic Ultrasound
EVL	Endoscopic Variceal Ligation
GAVE	Gastric Antral Vascular Ectasia
GIT	Gastrointestinal tract
GMBF	Gastric Mucosal Blood Flow
GOV	Gastroesophageal Varices
GV	Gastric Varices
GVE	Gastric Vascular Ectasia
GVL	Gastric variceal ligation
GVS	Gastric Variceal Sclerotherapy
HCC	Hepatocellular Caricnoma
HCS	Hemacystic Spots
H. Pylori	Helicobacter Pylori
HVPG	Hepatic Venous Pressure Gradient
IGV	Isolated Gastric Varices
iNOS	Inducible Nitric Oxide Synthase

List of Abbreviations

IPH	Idiopathic Portal Hypertension
ISDN	Isosorbide dinitrate
ISMN	Isosorbide 5-mononitrate
LGV	Left Gastric Vein
MLP	Mosaic Like Pattern
MR Angiography	Magnatic Resonance Angiography
MRI	Magnatic Resonance Imaging
NO	Nitric Oxide
NOS	Nitric Oxide Synthase
NSAIDs	Non steroidal anti-infilammatory drugs
PHC	Portal Hypertensive Colopathy
PHE	Portal Hypertensive Enteropathy
PHG	Portal Hypertensive Gastropathy
PUV	Paraumblical Vein
PVF	Portal Vein Volume Flow
RPLs	Red-point lesions
RWM	Red Wale Markings
SVF	Splenic Vein Volume Flow
TIPS	Transjugular Intrhepatic Portosystemic Shunt
V mean	Mean velocity
VEGF	Vascular Endothelial Growth Factor
WHPG	Wedged Hepatic Pressure Gradient
WHVP	Wedged Hepatic Venous Pressure

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Introduction

Portal hypertension is a common clinical syndrome with chronic liver disease and is characterized by a pathological increase in the portal pressure. Moreover, Portal hypertension is associated with increased portal blood flow. Porto-systemic collaterals develop as a result of portal hypertension ***(Paquet, 2000)***.

Major variceal bleeding is a life threatening complication of portal hypertension ***(Krige & Bomman, 2000).*** Bleeding oesophageal varices contribute to the estimated 32,000 deaths annually attributed to cirrhosis ***(Hegab & Luketic, 2001).***

The role of endoscopy in bleeding varices is both diagnostic and therapeutic ***(Bohnacker et al., 2000).*** Endoscopic injection sclerotherapy has been established as one of the most important modalities in the treatment of bleeding esophageal varices ***(Osman et al., 2001).***

Gastric varices and portal hypertensive gastropathy (PHG) are important complications of portal hypertension ***(Sarin & Agarwal, 2001).***

Paraesphageal varices and gastric varices may develop after injection sclerotherapy. The presence of paraesphageal

varices may predict the recurrence of esophageal varices and recurrent bleeding ***(Lo et al., 1999)***.

Portal hypertensive gastropathy is almost always associated with cirrhosis and is seen in the fundus and body of the stomach. These gastric changes may be increased after sclerotherapy and is often transitory and less severe, but if it is pre-existing, endoscopic therapy for varices could worsen the portal hypertensive gastropathy with a likelihood of bleeding ***(Sarin et al., 2000)***.

Doppler ultrasonography is a non invasive method to assess the splanchnic venous and arterial vasculature ***(Barbara, 1990)***. It has an important role to understand the vascular hemodynamics in these patients ***(Abdel-Megeed et al., 2000)***. When portal hypertension is suspected, Doppler ultrasound characterizes the changes in the portal haemodynamics and identifies pathways of portosystemic collateralization ***(Pozniak, 2002)***.

Aim of the Work

The aim of this study is to compare between partial obliteration and complete eradication of post-bleeding esophageal varices using injection sclerotherapy regarding: -

1- Effectiveness in preventing rebleeding.
2- Development of *de novo* congestive gastropathy or change of its severity if previously was present.
3- Development of new gastric varices.
4- Hemodynamic changes of the portal circulation and its collaterals.