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نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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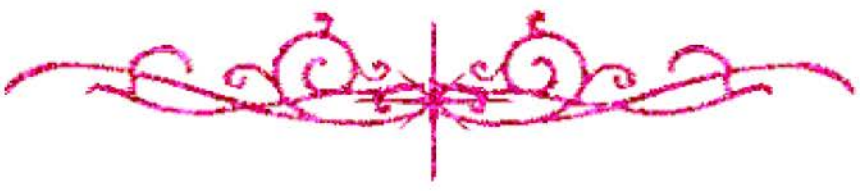

Correlation Between Systemic And Portal Haemodynamic Changes And Serum Levels Of Nitric Oxide End Products In Cirrhotic Patients Before And After Endoscopic Variceal Obliteration By Ligation

Thesis

submitted to the faculty of Medicine, Alexandria University
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To:

My Parents,

My Wife,

My Children, (Moustafa & Norhan)

LIST OF ABBREVIATIONS

ALT	: Alanine aminotransferase
AST	: Aspartate aminotransferase
BFV	: Blood flow volume
BP	: Blood pressure
CI	: Cardiac index
cNOS	: Constitutive nitric oxide synthase
Cong. Index	: Congestion index
COP	: Cardiac output
CRS	: Cherry red spots
CSA	: Cross sectional area
DR	: Diffuse reddness
EIS	: Endoscopic injection sclerotherapy
EVL	: Endoscopic variceal ligation
BF	: Blood flow
GV	: Gastric varices
Hb%	: Haemoglobin concentration
HBsAg	: Hepatitis B surface antigen
HCS	: Haematocystic spots
HCV	: Hepatitis C virus
HR	: Heart rate
iNOS	: Inducible synthase enzyme
LVEDD	: Left ventricular end diastolic dimension
LVEDV	: Left ventricular end diastolic volume
LVESD	: Left ventricular end systolic dimension
LVESV	: Left ventricular end systolic volume
MBP	: Mean arterial blood pressure
NO	: Nitric oxide

OV	: Oesophageal varices
PHG	: Portal hypertensive gastropathy
PPF	: Peri-portal fibrosis
R	: Vascular resistance
RCS	: Red colour sign
RWM	: Red wale marking
SV	: Stroke volume
SVRI	: Systemic vascular resistance index
Vmean	: Mean blood flow velocity

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Chapter I

INTRODUCTION

INTRODUCTION

The portal venous system is defined as one beginning and ending with capillaries. The name portal venous system is applied to the venous system that begins in the capillaries of the intestine and terminates at the hepatic sinusoids. This vascular system provides for an intimate relationship among the intestine, pancreas and liver.[1]

Anatomy of the Portal Venous System

The portal venous system includes all the veins that collect blood from the abdominal part of alimentary tract, spleen, pancreas, and gall bladder. The portal vein begins at the level of the second lumbar vertebra, just posterior to the head of the pancreas at the junction of the splenic and superior mesenteric veins.

It is about 6 to 8 cm long, 1.2 cm in diameter and contains no valves. The splenic veins originate at the hilum and join near the tail of the pancreas with the short gastric vessels to form the main splenic vein.

Collateral Circulation

When the portal pressure rises above 10 mmHg, a collateral circulation begins to develop between the high pressure portal system and negihboring low pressure veins, permitting diversion of portal blood into systemic veins.