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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم



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بالرسالة صفحات

لم ترد بالأصل

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**The portal hemodynamics after inferior mesenterico-renal shunt
in portal hypertensive bleeders**

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CONTENTS

CHAPTER	page
INTRODUCTION	
Anatomy of the portal venous system.	1
Pathology and pathogenesis of portal hypertension.	8
Natural history and clinical presentation.	13
Esophageal varices:	15
- Pathogenesis of esophageal varices.	16
- Pathogenesis of variceal bleeding.	21
- Grading of esophageal varices.	32
Hemodynamics of portal circulation in portal hypertension:	34
- Portal hemodynamics patterns in portal hypertension.	47
- Hemodynamics after distal splenorenal shunt.	47
- Hemodynamics after small diameter partial portocaval shunt.	49
Aim of the work	51
Material	52
Methods	53
Results	57
Discussion	85
Summary and conclusion	101
Reference	103
Protocol	
Arabic summary	

INTRODUCTION

INTRODUCTION

ANATOMICAL CONSIDERATION

ANATOMY OF THE PORTAL VENOUS SYSTEM

The portal venous system includes all veins, which carry blood from the abdominal part of the digestive tract (except the lower end of the anal canal), the spleen, the pancreas and the gall bladder to the liver. From these viscera blood is carried to the liver via the portal vein. ⁽¹⁾

The portal vein carries about 75% of the hepatic blood flow and the hepatic artery carries the rest blood supply of the liver. The portal venous system is entirely devoid of valves, which makes it easy to canulate any small mesenteric or omental veins. ⁽²⁾

ANATOMY OF THE PORTAL VEIN

The portal vein is formed by the union of the superior mesenteric vein and splenic vein behind the neck of the pancreas at the level of the second lumbar vertebra. ⁽¹⁾ The average length of the main portal vein is approximately 5.5 to 8 cm (Fig.1). ⁽³⁾

The vein inclines slightly to the right as it passes upward behind the superior part of the duodenum, the bile ducts and the gastroduodenal artery, and in front of the inferior vena cava. ⁽³⁾

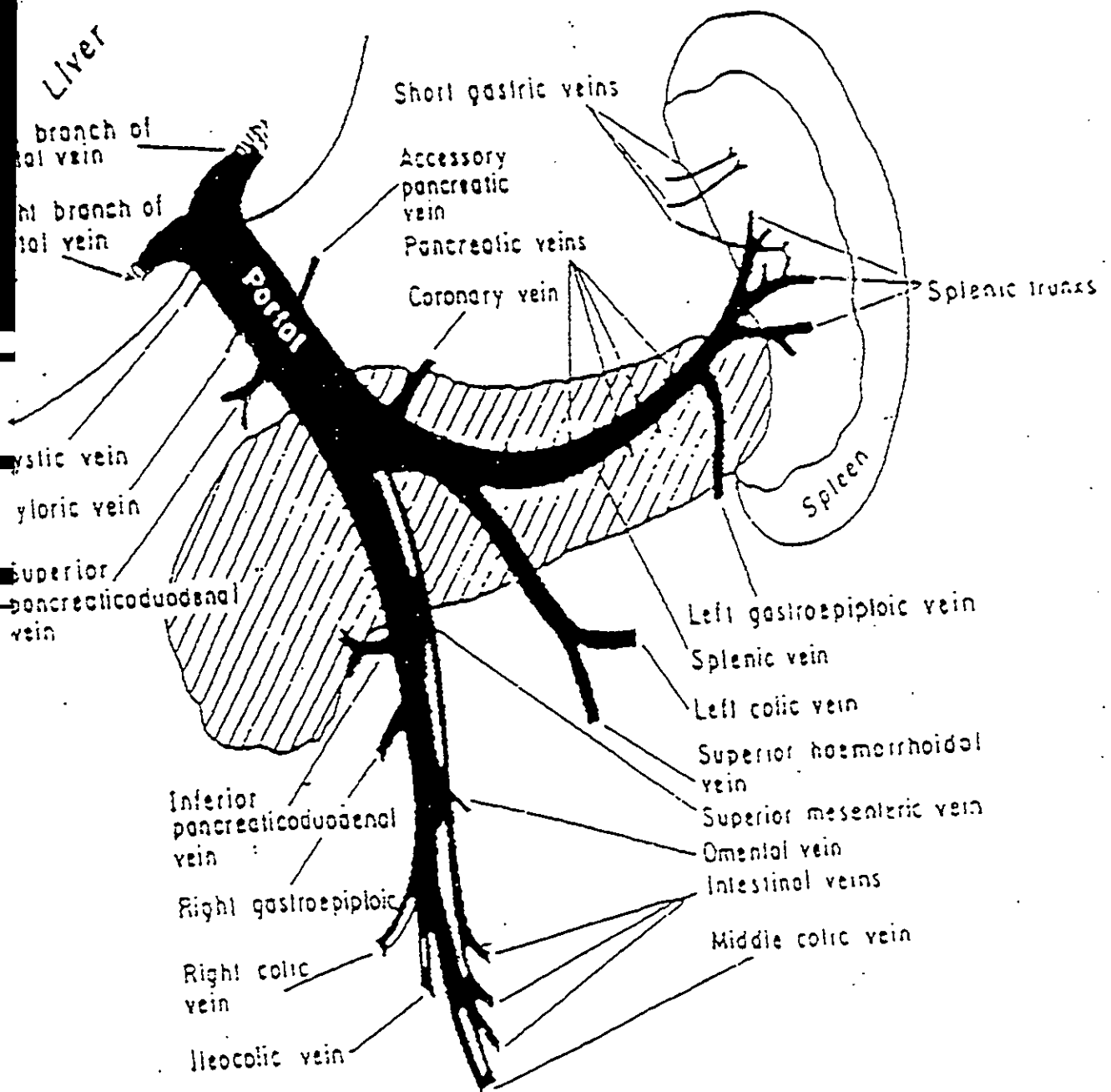


Fig. (1): the extrahepatic portal venous system ⁽⁴⁾

It then ascends in the right border of the lesser omentum in front of the epiploic foramen to reach the right end of the porta hepatis where it divides into a right short wide branch, and a left long narrow branch. In the lesser omentum it runs behind the bile duct and hepatic artery, the former is to the right of the latter. ⁽³⁾

ANOMALIES OF THE PORTAL VEIN

The vein emptying directly in the inferior vena cava or the vein and its tributaries may be located anterior to the pancreas and the first part of the duodenum in which circumstances it is frequently associated with situs invertus, ⁽⁵⁾ this could lead to duodenal obstruction. ⁽⁶⁾ Another anomaly is postnatal stricture of the portal vein due to spreading of the postnatal obliterative process of the umbilical vein. ⁽¹⁾

Tributaries of portal vein

- Splenic vein
- Superior mesenteric vein
- Left gastric vein
- Right gastric vein

- Paraumbilical vein
- Cystic vein or veins

SPLENIC VEIN

This vein is formed by confluence of five to six major trunks. This point is commonly between the hilum of the spleen and the tail of the pancreas about 3.5 cm from the mid point of the hilum. However it may occur behind the pancreas. The splenic vein regularly lies in a distinct groove on the posterior surface of the pancreas below the level of the splenic artery or it may be embedded in the pancreatic tissue. It receives an average of seven small pancreatic veins. ⁽⁴⁾

Tributaries of the splenic vein

- **Short gastric veins:**

They are four or five in number; they drain the fundus and the left part of the greater curvature of the stomach.

- **Left gastroepiploic vein:**

It receives branches from both surfaces of the stomach and from the greater omentum. It runs from right to the left along greater

curvature of the stomach between the anterior two layers of the greater omentum and ends in the commencement of the splenic vein. ⁽⁴⁾

Pancreatic veins:

They are three to thirteen small tributaries, average number is 7. They drain the body and tail of the pancreas. In 31.5% an accessory pancreatic vein of large caliber is found instead of multiple pancreatic veins. It terminates in the superior aspect of the mid portion of the portal vein but in 2.2% it terminates in the left gastroepiploic vein. ⁽⁴⁾

INFERIOR MESENTERIC VEIN

It drains blood from the rectum, the sigmoid and descending parts of the colon. It begins at the rectum as the superior rectal vein, which starts in the rectal plexus. It lies to the left of its corresponding artery. ⁽⁷⁾

Variations of the inferior mesenteric vein:

1. In 38% of cases the inferior mesenteric vein is joining the splenic vein shortly before the latter join the superior mesenteric vein, the greatest distance from the superior mesenteric vein is 3.4 cm.