THE RELATION BETWEEN ANORECTAL VARICES, HAEMORRHOIDS AND PORTAL HYPERTENSION

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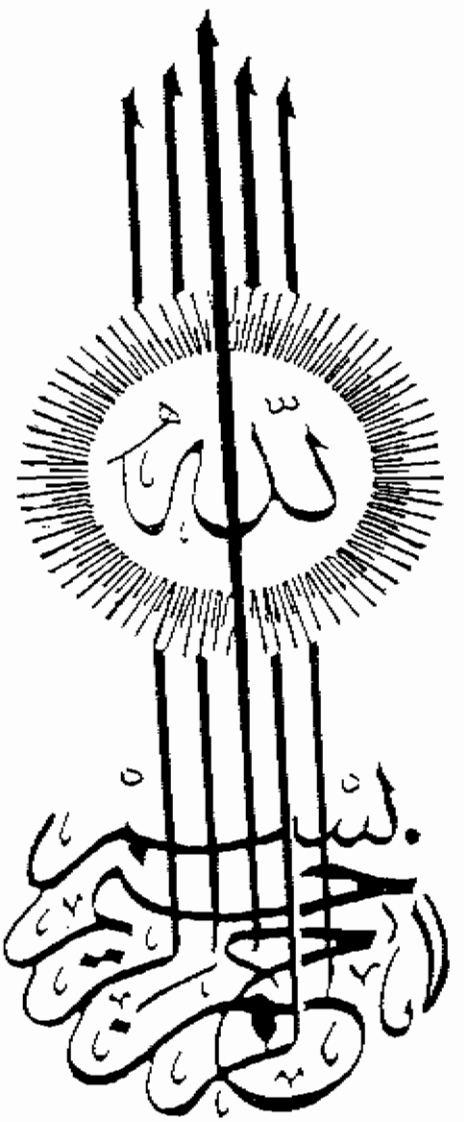

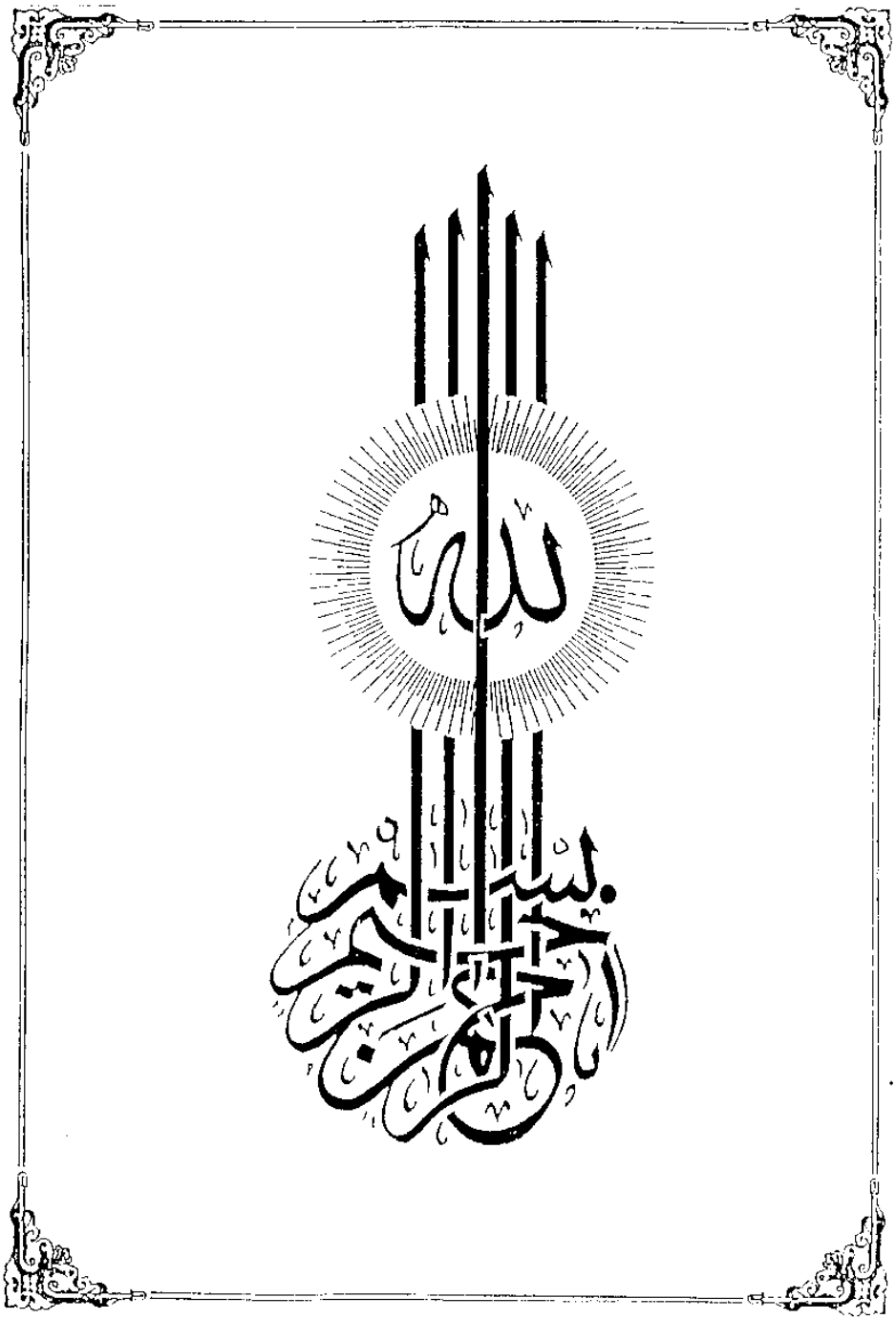

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INTRODUCTION AND AIM OF THE WORK

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INTRODUCTION:

Due to the high prevalence of Schistosomiasis and viral hepatitis in Egypt, hepatic cirrhosis may result with all its sequalae like portal hypertension and development of portal systemic collaterals.

Of these collaterals, esophageal varices are the most important and the major life threatening consequence due to massive bleeding from these varices in one-third of patients with portal hypertension (Johansen et al., 1980).

There is also other portal collaterals like anorectal varices which can occur in the rectum, anal canal, and/or external anal margin.

Haemorrhoids which do not occur in the rectum, are vascular cushions that have no direct connection to the portal vein (Thompson, 1975).

Nonetheless, anorectal varices and haemorrhoids are believed by some to be one and the same disorder (Gallgher, 1985).

AIM OF THE WORK:

This study will include 70 patients with portal hypertension caused by liver cirrhosis.

All of them will be examined endoscopically for the presence and grading of esophageal varices and sigmoidoscopically to detect anorectal varices or haemorrhoids, to establish the prevalence of anorectal varices and haemorrhoids, the relation (if any) between the two and the stage at which anorectal varices develop in patients with portal hypertension.

REVIEW OF LITERATURE

PORTAL HYPERTENSION

Anatomical consideration:

The liver has a double blood supply: The hepatic artery branch of the celiac axis supplying the arterial blood and the portal vein supplying the venous blood.

The portal system included all veins which carry blood from the abdominal part of the alimentary tract, the spleen, pancreas, and the gall bladder (Sherlock, 1981).

From these viscera blood is conveyed into the liver by the portal vein (Williams and Warwick, 1976).

The liver drains its blood into the inferior vena cava via the hepatic veins (Sherlock, 1985).

The portal vein:

The portal vein is valveless vein ranged from 6-8 cm in length and its diameter is about 1.2 cm (Reynolds, 1969).

The portal vein is formed by the union of the superior mesentric vein and the splenic vein just posterior to the head of pancreas at about the level of the second lumbar vertebra and in front of the inferior vena Cava (Sherlock, 1981).

It passes upwards and slightly to the right at first behind the gastroduodenal artery and common bile duct separating it from the first part of duodenum. Then it lies in the free margin of the lesser omentum behind hepatic artery and common bile duct separated from the inferior vena cava by the epiploic foramen. It reaches the right end of the porta hepatis where it divides into right and left branch forming an angle of 90 degrees with each other.

The right branch is thick, short, recieves the cystic vein before its enterance into the liver.

The left branch is long but of smaller caliber than the right branch. It gives branches to caudate and quadrate lobes and then enters the left lobe of the liver (Williams and Warwick, 1976).

The left branch is connected to fibrous cord "the ligamentum teres" which is remenant of the obliterated left umbilical vein which may recanalize in portal hypertension providing portosystemic communication from the left portal vein to the superficial epigastric veins (Kane and Katze, 1982).

A second fibrous cord; the ligamentum venosum, is a vestige of the obliterated ductus venosus and connects the

inferior vena cava with the left portal vein (Davies and Coupland, 1969).

The portal vein has a segmental intrahepatic distribution. Each hepatic segment depends on its major vessel for blood supply. Although there is no anastomosis but macroscopic branches, large intercommunications at the level of sinusoids exist (Rappaport, 1987).

The valveless portal vein is an afferent nutrient vessel of the liver and in this sense it is an arterial channel (Rappaport, 1975).

The portal vein derives from omphalomesentric vein which brings blood from the yolk sac and the intestine to the liver. The omphalic portion of the vein regress with the disappearance of the yolk sac; with the growth of the intestine, the mesentric portion persist and become the tributaries of the portal vein (Rappaport, 1975).

Anomalies of the Portal Vein:

The anomalies of the portal vein are rare conditions like, stenosis of junction between the splenic and the superior mesentric vein.

Snavely and Breakill (1954) reported a case of 13 years old patient presenting with an enlarged spleen, elevated

intrasplenic pressure and severe haematemesis lead to death and the P.M showed two separate portal veins with marked narrowing at the point of junction of splenic and superior mesentric veins to the portal vein.

Prepancreatic portal vein "lying anterior to the Pancreas" associated with biliary atresia was found in patients with portal hypertension and jaundice since birth (Renner and Child, 1963). Cavernous transformation is another anomaly with portal vein stenosis is reported also by Simmond's and Renner (1963) who considered cavernous malformation of portal vein as an acquired anatomic anomalies due to early thrombosis and recanalization of portal system or as an atypical form of the plexus of veins between the omphalomesentric and hepatic veins during second month of foetal life.

There are also other reported anomalies like agensis, a bifid vein, presence of valves and direct drainge to the inferior vena cava (Rousselot and Burchell, 1969).

Tributaries of the portal vein are:

1) Splenic vein.
2) Superior mesentric vein.
3) Left gastric vein.

4) Right gastric vein.

5) Paraumbilical vein.

6) Cystic vein.

The most troublesome tributaries of the portal vein is the left gastric "The coronary vein", it runs upwards along the lesser curvature of the stomach where it recieves some esophageal veins.

With progressing cirrhosis of the liver, it enlarges to form varices that may rupture to produce fatal haemorrhage (Rappaport, 1975).

The splenic vein:

It begins by 5-6 tributaries issuing from the spleen. Such tributaries are then joined by the short gastric vessels to form the main splenic vein 0.44 cm in diametr. It then descends to the right across the posterior abdominal wall where it recieves numerous short tributaries from the pancreas. It usually recieves the inferior mesentric at a right angle to form the portal vein (Warwick and Williams, 1975).

The left gastric vein:

It is running along the lesser curvature of the stomach in the lesser omentum, turns backwards at the esophageal opening of diaphragm after recieving esophageal tributaries.

It passes downwards and to the right behind the lesser sac to end in the portal vein.

The right gastric vein:

It runs along the lesser curvature from left to right ending in portal vein (Rappaport, 1987).

The superior mesentric vein:

It is very variable 0.78 cm in diameter, having from 10-25 tributaries. It collects blood from the small intestine, the coecum, the ascending and transvese parts of the colon, head of pancreas and irregularly from the stomach via the right gastroepiploic vein. It usually begins in the right iliac fossa by the union of its numerous tributaries and ascend in the root of the mesentry until the neck of pancreas to meet the splenic vein to form the portal vein (Gardner et al., 1975).

The inferior mesentric vein:

It drains blood from the rectum, the sigmoid and the descending parts of the colon. Starting as the superior rectal vein in the rectum and continues upwards and ends in the medial third of the splenic vein but may sometimes enter the junction of the splenic and superior mesentric veins (Romanes, 1969).