

**111. CLINICAL AND PATHOLOGICAL ASPECTS OF IDIOPATHIC PORTAL HYPERTENSION WITH SPLENOMEGALY (SO-CALLED BANTI'S SYNDROME): ON THE HEMODYNAMIC CHARACTERISTICS**

H. UEDA, K. KITANI, H. KAMEDA, T. HARADA, T. TAKEDA, H. YAMADA,  
K. HIROTA, M. IHORI, H. TAGAWA and O. TAKASE  
*Second Dept. Int. Med., Tokyo Univ. Hosp.*

Splenic blood flow was measured in 12 patients including 6 patients with idiopathic portal hypertension (I. P. H.) by the combined use of  $^{85}\text{Kr}$  and celiac catheterization technique. I. P. H. was defined as an unexplained portal hypertension with gross splenomegaly without either cirrhosis or extrahepatic portal obstruction. Splenic blood flow per 100 g. tissue weight was 82 to 140 (mean 101) ml/min in 3 controls, 50 to 73 (mean 67) ml/min in 3 cirrhotics and 63 to 160 (mean 102) ml/min in 6 cases of I. P. H. Total splenic blood flow calculated from the spleen weight obtained by the operation or autopsy, was 240 to 1440 (mean 780) ml/min in 5 cases of I. P. H. and 150 ml/min in one liver cirrhosis.

It was previously reported by us that the peculiar findings of celiac arteriography were observed in this disorder, which showed dilated splenic artery and narrowed hepatic artery, suggesting the increase of splenic blood flow and decrease of hepatic arterial flow. The absence of intrahepatic shunts and development of extrahepatic shunts, evidenced by the shunt detection method using  $^{131}\text{I}$ -MAA were also reported.

In addition to the intrahepatic presinusoidal block, which has been insisted as the cause of portal hypertension in this disorder, several characteristic features in portal hemodynamics were pointed out, such as, 1) the increase of splenic blood flow, 2) the decrease of hepatic arterial flow and 3) the development of extrahepatic shunts and absence of intrahepatic shunts.

**112. THE STUDIES ON PORTAL CIRCULATION: THE EFFECTS OF SOME DRUGS ON THE SMALL BLOOD VESSELS OF THE INTESTINE AND LIVER OF RAT**

T. TAKAHASHI, J. INOUE, S. TOKITA, Y. MARUYAMA, S. HIDA, E. SEKIZAWA,  
T. IZUKURA, Y. MORI, I. YOKOYAMA, H. KOSHIKAWA, T. KAWAMURA  
*The 1st Department of Internal Medicine, The Jikeikai University,  
School of Medicine, Tokyo*

The effects of some drugs on the small vessels of the intestine and the liver of rats were studied microscopically. The observation was made by using of "FSC Photographic Apparatus of Cutaneous Mucous Blood Vessel", and drugs was administrated intraperitoneously.

(1) Noradrenalin

The superficial venen of the liver became sharp, and the color of the hepatic parenchyma faded. These show the decrease of the intrahepatic blood volume. The arteriole and metaarteriole of the intestine contracted remarkably, the metaarteriole especially.

It was thought that the increase of the resistance of the intrahepatic blood vessels and the contraction of the intestinal vessels was the principal changes.

(2) Pitressin

The superficial venen of the liver contracted slightly, and the capillary became fine and sharp. The color of the hepatic parenchyma faded. The intestinal arteriole and the metaarteriole contracted, especially the metaarteriole remarkably, and the arterio-venous-anastomoses was blocked. So that, the principal changes caused by pitressin was the decrease of the portal blood flow.

(3) Bethanechol

The superficial postcapillary venule became sharp and distinct. The intestinal metaarteriole and the precapillary dilated and the arterio-venous-anastomoses appeared distinctly. Therefore,