HEPATIC HEMODYNAMICS IN ACUTE VIRAL HEPATITIS ASSESSED BY PULSED DOPPLER SONOGRAPHY

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Pulsed Doppler sonography can evaluate the local hemodynamics in patients with diffuse liver disease. Acute viral hepatitis (AVH) is characterized by diffuse hepatocellular dissary and necrosis, without portal or periportal abnormalities. We aimed to study the hepatic blood flow in patients with AVH by pulsed Doppler technique. Hepatic blood flow have been evaluated in 21 patients with acute viral hepatitis, by pulsed Doppler sonography (Toshiba SSH-140A Unit, Tokyo, Japan). Portal system (portal, superior mesenteric and splenic vein) and hepatic artery parameters have been measured in the acute and recovery phase of AVH. The result are summarized in the table 1 and 2.

Table 1: Portal system parameters in AVH

	Vm(m/s)		Area (mm^2)		VBF(L/min)	
	Acute	Recovery	Acute	Recovery	Acute	Recovery
Portal vein	0,28	0,21	107,2	102,1	1,36	1,34
Splenic vein	0,21	0,20	42,3	32	0,60	0,41
SMV	0,24	0,17	46,5	35,8	0,50	0,32

Vm = Mean velocity (m/s) Recovery = Recovery phase
VBF = Volume blood flow (L/min) Acute = Acute phase
SMV = Superior mesenteric vein

Table 2: Hepatic artery parameters in AVH

R.I.		P.I.		Vm (m/s)		VBF(L/min)		Area(mm^2)	
A.P.	R.P.	A.P.	R.P.	A.P.	R.P.	A.P.	R.P.	A.P.	R.P.
0,71	0,66	1,31	1,21	0,55	0,41	1,1	0,36	16,6	12

R.I. = Resistive Index VBF = Volume Blood Flow (L/min)
P.I. = Pulsatility Index A.P. = Acute Phase
Vm = Mean velocity (m/s) R.P. = Recovery Phase

1. Volume blood flow seems to be increased in acute phase of viral hepatitis. 2. Portal system and hepatic artery parameters show high values in acute phase; their decrease correlates to the recovery.