

## **Pentadecapeptide BPC 157 counteracts portal hypertension, caval hypertension and aortal hypotension with suprahepatic occlusion of inferior caval vein in rats**

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We introduce pentadecapeptide BPC 157 as the therapy of the hemodynamic disturbances in the prolonged suprahepatic occlusion of inferior caval vein (ICV) in rats mimicking Budd-Chiari syndrome. Previously, in rats with portal triad obstruction BPC 157 beneficially increased vessels branching in the intestinal serosa and counteracted intestinal lesions. It also counteracts free radical formation, and most importantly, counteracts portal hypertension and caval hypotension. In deeply anesthetized and laparatomized rats that have suprahepatic occlusion of ICV, the recording lasted 5 minutes with a cannula (assessed in one minute intervals) connected to a pressure transducer, inserted into the portal vein, inferior caval vein and abdominal aorta at the level of bifurcation, at 24 h or 48 h of ligation time. Medication (BPC 157), or saline (controls)) was applied in rats with suprahepatic occlusion of ICV, as an abdominal bath or as an intragastric application, at 24 h or 48 h reperfusion time. Assessment of portal, caval and aortal pressure showed huge portal hypertension and more caval hypertension along with mild aortic hypotension. Contrarily, when BPC 157 was given in those circumstances of the portal and caval hypertension, and arterial hypotension, these disturbances were marked counteracted. Thus, suprahepatic ICV occlusion provides high caval hypertension, even elevated in comparison to portal hypertension, and thereby, spontaneous decompression of the portal system can hardly be expected by a portocaval shunt. BPC 157, as an abdominal bath or as an intragastric application, may be a consistent therapy solution.