

## **Portal triad obstruction and reperfusion in rats –the effect of BPC 157**

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To investigate effects of pentadecapeptide BPC 157 therapy in temporary portal triad obstruction – PTO (hepatic artery, portal vein, common bile duct, 30 min in rats), and in reperfusion period thereafter, during 15 min and 24 h. BPC 157 (10 µg/kg, 10 ng/kg), or saline (5 ml/kg) was applied as a bath at the hepatoduodenal ligament area immediately after portal triad clamping or at the same area at 1 min or at 24 h reperfusion time. A period of 30 min of PTO much like reperfusion during 15 min and 24 h regularly produced severe hemorrhagic congestion (scored 0-4) of the stomach, duodenum, jejunum, cecum, colon, and esophageal bleeding in all controls. Contrarily, given either in ischemia period or in reperfusion period, BPC 157 counteracts severe hemorrhagic congestion in all organs, counteracts esophageal bleeding and maintained grossly intact esophageal mucosa. BPC 157 promptly induced effective shunting (venography in portal vein below ligation, portal vein-superior mesenteric vein-inferior mesenteric vein-rectal veins-left iliac vein-inferior caval vein). BPC 157, since attenuates portal hypertension in PTO-period, and completely eliminates pre-existing portal hypertension in post-PTO-period resulting in the values much like in the normal rats. PTO induced esophageal bleeding and severe hemorrhagic congestion in stomach, duodenum, jejunum, cecum and colon. BPC 157 counteracts these complications along with portal hypertension. Pringle maneuver and its consequences may have BPC 157 application as a successful therapy.