

**BPC 157 pentadecapeptide attenuates acute renal ischemia injury, prevents ensuing hemodynamic disturbances, peaked and inverted p waves, and gastrointestinal lesions**

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We focused on the effects of BPC 157 on acute unilateral renal ischemia in rats, subsequent severe portal (PV) and inferior vena cava (IVC) hypertension and thrombosis, abdominal aorta (AA) hypotension, peaked or inverted P waves and gastrointestinal lesions. Medication (/kg) (BPC 157 (10 µg)(treated group) or saline (5 ml)(control group)) was applied as an abdominal bath immediately after the right renal artery was ligated. 10min, 1h, and 24h after ligation electrocardiography, USB microcamera recording, intravascular cannulation, and thrombi extraction was performed. Control rats exhibited PV and IVC hypertension, aortic hypotension (mmHg) (10min: 32±2 PV, 24±4 IVC, 75±2 AA; 1h: 43±4 PV, 46±3 IVC, 73±4 AA; 24h: 30±2 PV, 34±1 IVC, 86±3 AA) and thrombosis (thrombus weight, mg) (10min: 1.3±0.3 IVC, 3.5±0.4 PV; 1h: 15.1±0.5 IVC, 5.4±0.2 PV; 24h: 16.3±1.5 IVC, 6.1±0.9 PV). Treated group showed improved pressure values (10min: 4±1 PV, 8±1 IVC, 84±3 AA; 1h: 18±2 PV, 6±1 IVC, 92±3 AA; 24h: 5±1 PV, 10±1 IVC, 97±2 AA) and milder thrombosis (10min: no thrombi; 1h: 7.7±0.3 IVC, 2.3±0.2 PV; 24h: 11.6±0.5 IVC, 3.2±0.2 PV). Control rats exhibited peaked (10 min, 1h) or inverted (24h) P waves, gastric and intestinal lesions (24h) and complete renal infarction (24h), whereas the treated rats exhibited no P wave abnormalities, significantly mitigated gastrointestinal lesions (24h) and only partial renal infarction (24h). BPC 157 therapy reduces the severity of renal ischemia injury, counteracts hemodynamic disturbances, P wave abnormalities and gastrointestinal lesions that follow.