

## Effects of Glycyrrhizae Radix Pharmacopuncture Intravenous Injection on Ischemia-induced Acute Renal Failure in Rabbits

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### Abstract

**Objectives:** The present study was undertaken to determine whether Glycyrrhizae Radix pharmacopuncture intravenous injection exerts a beneficial effect against ischemia-induced acute renal failure in rabbits.

**Methods:** Rabbits were treated with Glycyrrhizae Radix pharmacopuncture via i.v., followed by renal ischemia/reperfusion. The fractional excretions of glucose and phosphate were measured; the malondialdehyde content was also determined. The morphological changes of the cortical part of the kidney were observed with a light microscope.

**Results:** Renal ischemia/reperfusion caused increased fractional excretions of glucose and phosphate in ischemia-induced animals, which was prevented by Radix Glycyrrhizae extract treatment. Ischemia/reperfusion increased lipid peroxidation, which was prevented by Radix Glycyrrhizae pharmacopuncture administration. Morphological changes were also altered.

**Conclusions:** These results indicate that lipid peroxidation plays a critical role in ischemia-induced acute renal failure and that Glycyrrhizae Radix pharmacopuncture exerts a protective effect against acute renal failure induced by renal ischemia/reperfusion.

**Key Words:** Glycyrrhizae Radix; pharmacopuncture; ischemia; renal failure