



ISCHEMIA/REPERFUSION INJURY

A MODEL OF RENAL ISCHEMIA/REPERFUSION INJURY (INDUCED BY RENAL ARTERY LIGATION), ONE OF THE MAJOR CAUSES OF ACUTE RENAL FAILURE FOLLOWING TRANSPLANTATION, ANGIOPLASTY, SHOCK AND MAJOR SURGERY

MODEL

Two models are available:

- Ischemia/reperfusion of renal artery (1)
- Ischemia/reperfusion injury associated with nephrectomy and Cyclosporin A treatment (2)

SPECIES

Rat, mouse

Depending on your compounds and objectives, NOD mouse (type 1 diabetes) and Zucker rat (type 2 diabetes) strains are also available. Please contact us for further information.

INTEREST

(1) Features of acute renal failure and renal transplantation are mimicked.

(2) Features of human chronic renal graft dysfunction with immunosuppressive treatment are mimicked.

MODEL DESCRIPTION

(1) Renal artery ischemia/reperfusion can be either unilateral or bilateral. Durations of ischemia and reperfusion can be modified on request.

(2) Left kidney nephrectomy and Cyclosporine A treatment are performed to mimic renal allograft. Durations of ischemia and reperfusion can be modified on request.

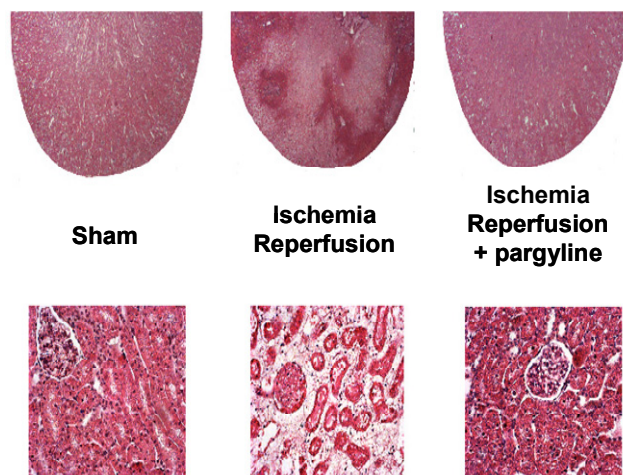
Reference substances tested: inhibitors of monoamine oxidases, melatonin.

PARAMETERS EVALUATED

- Renal function
- Histomorphometry
- Inflammation
- Oxidative stress
- Apoptosis
- Proliferation
- Fibrosis
- Specific mRNA expression profile

SCIENTIFIC PUBLICATIONS

- Kunduzova O et al, *FASEB J* **17**: 872-4, 2003
- Kunduzova O et al, *FASEB J* **16**: 1129-31, 2002



Hematoxylin/eosin coloration.