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Necro X7 attenuates contrast induced nephropathy.

Jin young JEONG[2], Hynsu CHOI[5], Young rok HAM[1], Hong jin BAE[1], Chan hun SONG[1], Hae ri KIM[1], Wonjung CHOI[1], Ki-ryang NA[1], Yoon-kyung CHANG[3,4], Kang wook LEE[1], *Dae eun CHOI[1]

[1]Nephrology, School of Medicine, Chungnam National University, Korea, South, [2]Medical Science , School of Medicine, Chungnam National University , Korea, South, [3]Nephrology, College of Medicine, Catholic University of Korea, Korea, South, [4]Nephrology, Daejeon Saint Mary Hospital , Korea, South, [5]Clinical Research institute , Daejeon Saint Mary Hospital, Korea, South

Objectives : Major patho-mechanism of contrast induced nephropathy CIN is well known as oxidative stress and osmotic injury of kidney tubules. Although various anti-oxidants are tried in CIN, it has been showed only little effects. NecroX series that can reduce reactive oxygen species and necroptosis pathway. We investigated the effect of NecroX-7 on contrast induced nephropathy (CIN) in mice.

Methods : C57BL/6 mice were divided into 4 groups; normal control group, NecroX-7 treated control group ,vehicle with CIN treated group, and NecroX-7 with CIN. CIN mice were prepared by iohexol(1.5 g iodine/kg) injection after ischemia reperfusion renal injury . NecroX-7(2mg/kg) was injected intraperitoneally for 2 days, starting 24 h before surgery. Mice were sacrificed at 24 h after the surgical procedure, and the blood and kidneys were collected.

Results : The levels of BUN and serum creatinine in NecroX-7 with contast treated mice were significantly lower than that of vehicle with contrast treated mice($p < 0.05$). In microscopy, NecroX-7 significantly reduced renal tubular epithelial cell necrosis and detachment in contrast treated mice kidney.

Conclusions : NecroX-7 attenuates contrast induced nephrotoxicity.

Keywords :