

## Effects of the Administration of 5-aryl-2,3-dihydroimidazol [2,1-a] isoquinolines (SDZ-62434) on Kidney

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The effects of the anti-tumor agent, SDZ-62434, on rat kidney were investigated to predict the toxicities of its derivatives and to develop less toxic derivatives.

After adjusted in metabolic cages for 5 days, rats were treated SDZ-62434 (acute : 25mg/Kg, i.p., once and 50mg/Kg, i.p., once; subacute : 10mg/Kg, i.p., daily for 7 days). Kidney weights and urine volume during the treatment were observed. Creatinine concentration, protein concentration and the activities of N-acetyl-β-D-glucosaminidase (NAG), alanine aminopeptidase (AAP), γ-glutamyl transpeptidase (GGT) and lactate dehydrogenase (LDH) in 24 hr urine were also determined.

The kidney weights after the acute and subacute administration didn't show any difference. Urine volume increased 5 days after the acute administration (50mg/Kg) and 3 days after the subacute administration. The excretion of creatinine was increased 5 days after the acute (50mg/Kg) and subacute administration. However, the protein excretion didn't show any change. NAG activity declined 7 days after the subacute administration. AAP and GGT activities increased 3 days after the acute administration (50mg/Kg) but, returned to the control value. LDH activity showed continuously high value after the subacute administration.

These results indicates that the acute administration of SDZ-62434 might damage on glomerulus and that the subacute administration might be cytotoxic to kidney cells.