

**ABSTRACT**

**CORRELATION BETWEEN HEPARANASE AND  
GLOMERULOSCLEROSIS IN HYPERURICEMIA MODEL IN MICE**

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**BACKGROUND:** CKD has become a burden for public health worldwide because of increment cases number, high costs, poor outcomes. Glomerulosclerosis is one of the marker for CKD. Heparanase has been associated in heparan sulfate degeneration in proteinuria which is one of the manifestation of glomerulosclerosis.

**PURPOSE:** To elucidate the correlation between heparanase and glomerulosclerosis.

**METHOD:** We induced male swiss background mice to hyperuricemia state by injecting uric acid. The uric acid 125mg/kg/day were dissolved in 0.2 M NAOH and was injected intraperitoneally with total liquid of volume 0.2mL until two weeks. The observation was divided into two group, UA7 and UA14. Glomerulosclerosis score was measured based on Periodic Acid Schiff (PAS) staining. Heparanase expression was measured using RT-PCR.

**RESULT:**Hyperuricemia induced an increase of glomerulosclerosis score in UA7 and UA14, followed by increase of Heparanase expression in UA7 and UA14.

**CONCLUSION:** There is a positive moderate correlation between heparanase and glomerulosclerosis in hyperuricemia model in mice.

**KEYWORDS:** chronic kidney disease, glomerulosclerosis, heparanase, hyperuricemia, mice