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## **Incidence and risk factors associated with fenofibrate-induced acute kidney injury**

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**Objectives:** Fenofibrate is a peroxisome proliferator-activated receptor alpha agonist that widely prescribed for the treatment of hypertriglyceridemia. However, there have been reports of nephrotoxicity with fenofibrate. We investigated the incidence of acute kidney injury in patients who take a fenofibrate.

**Methods:** This retrospective, observational study investigated patients who were prescribed 135mg fenofibrate from August 2013 to November 2020. We compared serum creatinine level and estimated glomerular filtration rate before and after treatment in patients who were prescribed fenofibrate. We performed logistic regression analysis to find risk factors associated with acute kidney injury.

**Results:** Total 311 patients were included and the mean age was 56.1 years old. Acute kidney injury occurred in 78(25%) of 311 patients. The incidence of acute kidney injury was significantly increased in patients with diabetes mellitus (30.1% vs 18.8%,  $p=0.023$ ) and hypertension (32.6% vs 19.6%,  $p=0.009$ ). There was a significant increase in the risk of acute kidney injury with fenofibrate in patients with chronic kidney disease compared with patients without chronic kidney disease. (63% vs 21.5%,  $p<0.001$ ).

**Conclusions:** Fenofibrate is a useful treatment for hypertriglyceridemia, but can cause acute kidney injury. Diabetes mellitus, hypertension and chronic kidney disease statistically significant increase acute kidney injury, so caution is needed when prescribed by a clinician.