

INCIDENCE OF RENAL FANCONI SYNDROME IN PATIENTS TAKING ANTIRETROVIRAL THERAPY INCLUDING TENOFOVIR DISOPROXYL FUMARATE.

Medland NA¹, Chow EPF¹, Walker RG², Chen M¹, Read THR¹, Fairley CK¹

¹Melbourne Sexual Health Centre, Alfred Health, Melbourne Australia and Central Clinical School, Monash University, Melbourne, Australia

²Renal Medicine Department, Alfred Hospital, Alfred Health, Melbourne Australia and Central Clinical School, Monash University, Melbourne, Australia

Background: To determine the incidence and predictors of Fanconi Syndrome (FS) in a cohort of patients taking tenofovir disoproxil fumarate (TDF).

Methods: Clinical records and laboratory investigations from patients receiving TDF between 2002 and 2016 were extracted. FS was defined as normoglycaemic glycosuria and proteinuria and at least one other marker of renal dysfunction. Regression analysis was performed with time to development of FS and the following covariates: ritonavir co-administration, age, sex, co-morbidities (hypertension, hyperlipidemia, diabetes, viral hepatitis), CD4 cell count nadir and baseline eGFR.

Results: 1044 patients received TDF without ritonavir and 398 patients with ritonavir. Thirteen cases of FS were identified with a mean duration of exposure of 55 months. The incidence of FS was 1.09/1000PYs (0.54-1.63) of TDF exposure (without ritonavir) and 5.50/1000PYs (3.66-7.33) of TDF-ritonavir co-administration ($p=0.0057$). The adjusted hazards ratio for ritonavir co-administration was 4.71 (1.37-16.14, $p=0.014$). Known risk factors for chronic kidney disease were not associated with development of FS.

Conclusions: Ritonavir co-administration but not other factors is associated with a greater risk of FS. FS developed late. Known risk factors for chronic kidney disease and length of treatment are not useful for identifying patients most at risk of developing FS.