TENOFOVIR-RELATED FANCONI’S SYNDROME AND OSTEOMALACIA IN A TEENAGER WITH HUMAN IMMUNODEFICIENCY VIRUS (HIV)

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Decreased bone mineral density with TDF use in HIV-infected populations, particularly pre-pubertal and young adolescents is a known adverse effect of TDF - especially when used with a boosted protease inhibitor. We describe a 17 year old boy who developed Fanconi syndrome and osteomalacia whilst taking anti-retroviral therapy (ART) which included TDF.

An Indigenous teenager with vertically acquired human immune deficiency (HIV) presented with bone pain of six months duration. His antiretroviral therapy (ART) consisted of tenofovir disoproxil fumarate (TDF) and ritonavir-boosted liponavir. A dual emission x-ray absorptiometry (DEXA) scan revealed osteomalacia. Plain x-rays showed stress fractures of metatarsals bilaterally.

Raised serum creatinine, hypophosphataemia, glycosuria and metabolic acidosis supported a diagnosis of Fanconi syndrome. Serum vitamin D levels were low also. Discontinuation of TDF led to significant improvement in renal function and complete resolution of bone pain.

This case uniquely features renal and skeletal toxicities with resultant stress fractures of metatarsals bilaterally.

While relatively uncommon and for the most part reversible, early recognition of mild proximal tubulopathy should be screened for at each clinic visit, with particular emphasis on renal function, bone profile, vitamin D levels and urinalysis with measurement of urinary phosphate excretion.