Frequent injection cocaine use increases the risk of renal impairment among hepatitis C and HIV co-infected patients

Supplemental Digital Content

Authors:

Carmine ROSSI[1], Joseph COX[1], Curtis COOPER[2], Valérie MARTEL-LAFERRIÈRE[3], Sharon WALMSLEY[4], John GILL[5], Ruth SAPIR-PICHHADZE[6], Erica E.M. MOODIE[1], Marina B. KLEIN[7], for the Canadian Co-infection Cohort Investigators.

Affiliations:

[1] McGill University, Department of Epidemiology, Biostatistics and Occupational Health, Montréal, Québec

[2] The Ottawa Hospital-General Campus, Ottawa, Ontario

[3] Centre Hospitalier de l'Université de Montréal – Notre-Dame, Montréal, Québec, Canada

[4] University Health Network, University of Toronto, Toronto, Ontario

[5] Southern Alberta HIV Clinic, Calgary, Alberta

[6] McGill University, Division of Nephrology and Multi-Organ Transplant Program, Department of Medicine, Montréal, Québec

[7] Chronic Viral Illness Service, McGill University Health Centre, Montréal, Québec

Supplemental Table 1: Longitudinal differences in estimated glomerular filtration rates

(mL/min/1.73 m^2 per year) associated with injection cocaine use (n=1,061)

	Crude Difference in ΔeGFR/year (95% CI)	Adjusted Difference in ΔeGFR/year (95% CI) [a]
Non-User	0 (Reference)	0 (Reference)
Current Injection Cocaine Use	0.24 (-0.04, 0.52)	0.27 (-0.01, 0.55)
Heavy Frequency of Use [b]	0.55 (-0.02, 1.12)	0.49 (-0.07, 1.06)
Cumulative Use $\geq$ 75% of follow-up	0.44 (0.06, 0.82)	0.48 (0.11, 0.86)

eGFR = estimated glomerular filtration rate; CI = confidence interval.

[a] Models adjusted for chronic hepatitis C virus (HCV) infection, age, sex, income $\leq$ $24,000/year, $CD4^+$ cell count, detectable HIV viral load, tenofovir use, atazanavir use, lopinavir use, AIDS, hypertension and end-stage liver disease diagnoses. All variables, except age and sex, were time-updated. Multiple imputation used for missing data.

[b] Average injection cocaine use $\geq$ 3 days per week.

Supplemental Table 2: Non-injection cocaine use and incident chronic renal impairment using

discrete-time proportional hazards model

	Crude HR (95% CI)	Adjusted HR (95% CI) [a]
Current Use of Non-Injection Crack/Cocaine	1.28 (0.85, 1.92)	1.54 (0.98, 2.41)
Proportion of follow-up time		
Non-Users	1 (Reference)	1 (Reference)
>1 to ≤ 50%	1.02 (0.65, 1.60)	1.44 (0.86, 2.39)
> 50%	1.47 (0.96, 2.27)	2.03 (1.22, 3.39)

HR = hazard ratio; CI = confidence interval.

[a] Models adjusted for chronic hepatitis C virus (HCV) infection, age, sex, income ≤ $24,000/year, $CD4^+$ cell count, detectable HIV viral load, tenofovir use, atazanavir use, lopinavir use, AIDS, hypertension and end-stage liver disease diagnoses. All variables, except sex, were time-updated.