

The Prevalence of Proteinuria among Adults with Impaired Fasting Glucose in Manila Doctors Hospital

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OBJECTIVE: To determine the prevalence of proteinuria among adult patients with impaired fasting glucose (IFG) and normal fasting glucose (NFG).

METHODOLOGY: A cross sectional study of 117 adult non-diabetic patients with no overt kidney disease were enrolled from the outpatient department of Manila Doctors Hospital from July 2015 to December 2015. Fasting blood glucose, serum creatinine, routine urinalysis and dipstick micral test (using ROCHE ChemStrip Micral) were done. The prevalence of proteinuria among patients with IFG was compared to those with normal fasting glucose (NFG). Multiple regression analysis was done to determine factors associated with presence of proteinuria.

RESULTS: The prevalence of proteinuria was 32.48% (95% CI [24.96-42.26] n=117) in the total sample, 31.46% (95% CI [22.79-42.42] n=89) in patients with normal fasting glucose (NFG), and 35.71% (95% CI [20.33-57.55], n=26) in patients with impaired fasting glucose (IFG). Patients with IFG were 1.21 times more likely to have proteinuria than patients with NFG, however this was not statistically significant (p-value =0.675, 95% CI [0.495-2.957]). Factors associated with presence of proteinuria were: history of hypertension (OR=2.783, p-value= 0.020), systolic BP (OR=1.022, p-value=0.023), high pulse pressure (OR = 1.030, p-value 0.038), history of antihypertensive medication use (OR=4.191 p-value=0.007). Multivariate analysis revealed that use of antihypertensive medications, particularly calcium channel blockers, was independently associated with presence of proteinuria.

CONCLUSION: Patients with impaired fasting glucose were not more likely to have proteinuria than those with normal fasting glucose. Hypertension is a significant factor associated with proteinuria in non-diabetic patients without overt kidney disease.