

A-05: Urinary N-acetyl- β -D glucosaminidase (uNAG) as an index of renal damage: a preliminary study

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The importance of the measurement of uNAG for the early detection of renal damage, was apparent from studies reported in literature. Prior to the present study, urinary enzymes including NAG have not been used as a diagnostic tool either in the detection, monitoring or screening of renal diseases in Sri Lanka. This preliminary study was carried out to bring about an awareness of its potential as a simple, non invasive test of renal integrity.

Urinary NAG activity was measured in patients selected at random attending the diabetic (n=65) and rheumatology clinic (n=20) of the General Hospital, Colombo. 36% (n=24) of diabetic patients and 40% (n=8) of patients attending the rheumatology clinic had urinary NAG activities above the normal range (50 - 119 U/ng creatinine). None of these patients were either diagnosed or suspected to have any form of renal impairment as assessed by

a clinical examination and/or results of conventional renal function tests. Similarly, in snake bite patients (n=10) uNAG appeared to be a better index than conventional renal function tests in detecting early, renal tissue injury as a result of envenomation.

These preliminary results revealed the potential utility of uNAG measurements in detecting renal tissue injury at an early stage where conventional renal function tests were insensitive and usually showed no deviations.