

Abstract

The validity of using urine albumin as a screening tool for chronic kidney disease in North Central province

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There is no formal agreement regarding the prevalence of chronic kidney disease in the North Central Province of Sri Lanka. Unpublished data from the Provincial Renal & Research Unit, North Central Province, suggests that prevalence varies from 1 to 16%. This data has been gathered using dipstick proteinuria as a screening tool. The renal unit at Teaching Hospital Anuradhapura has been conducting community screening program since 2013. Both proteinuria assessment and expected glomerular filtration estimation were used, in keeping with standard recommendations. Either persistent proteinuria or decreased glomerular filtration rate will confirm chronic kidney disease. Using one alone will miss some cases. We present data suggesting that dipstick proteinuria alone may not be adequate as a screening tool to detect chronic kidney disease in the North Central province.

Method

Anonymized screening data from June 2013 to June 2015 was analyzed. The total number of subjects with either proteinuria or reduced glomerular filtration rate was calculated. The number of subjects with decreased glomerular filtration rate, but without proteinuria, was also calculated. Incompletely recorded data was excluded.

Results

Data was obtained from 27 screening clinics. 1739 positives were identified from 7924 subjects. 518 (29.8% of total positives) had decreased glomerular filtration rate without detectable proteinuria.

Conclusions

The results suggest that using proteinuria alone as a screening tool for chronic kidney disease may miss almost 30% of cases.

Key words: Chronic Kidney Disease; Screening; Validity; Proteinuria

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