

(5) RISK FACTORS

5.1 EPIDEMIOLOGICAL RISK FACTORS OF CHRONIC KIDNEY DISEASE OF UNKNOWN ETIOLOGY : A HOSPITAL BASED CASE CONTROL STUDY

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Background: Chronic Kidney Disease of Unknown aetiology (CKDu) is a significant health problem in Sri

Lanka. The geographical distribution of CKDu is mainly in the North Central Province (NCP) and to a

lesser extent in North Western and Uva provinces. There are many theories on the culprit of CKDu

including hard water, agrochemicals, fluoride content in water, use of aluminum utensils, snake bite,

ayurvedic treatment and dietary Cadmium. Yet the exact cause for the CKDu still remains elusive.

Objective: Assessment of the epidemiological risk factors of the CKDu in NCP.

Methods: 140 cases (70 males and 70 females) treated at Teaching Hospital Anuradhapura, were randomly drawn from National CKD registry. 140 sex matched controls with normal serum Creatinine

level were selected from the same hospital. Data collection was done using an interviewer administered questionnaire. Data was statistically analysed using R software and the odds ratios were

calculated.

Results: The incidence of CKDu was increased in people whose occupation is agriculture for the longest

part of life compared with those whose occupation for the longest part of life non-agriculture related

(Odds ratio [OR] 3.750, 95% confidence interval [CI] 2.160 to 6.509). Well water as the main source of

drinking water for the last five years was a significant risk factor for CKDu (OR 3.773, CI 2.112 to 6.600).

Risk of CKDu was significantly higher among people who consumed illicit liquor (OR 5.667, CI 2.379 to

13.497) and among people who consumed tobacco/lime (OR 2.211, CI 1.286 to 3.800). People whose

monthly income is less than Rs 10000/- had an increased risk of CKDu (OR 15, CI 5.452 to 41.271). Risk of

CKDu did not differ significantly by smoking, alcohol intake, exposure to agrochemicals or snake bite.

Conclusions: Results suggest that farmers, people whose source of drinking water is well, people who consume tobacco/lime and illicit liquor and people who have a monthly income of less than Rs 10000 are at an increased risk of CKDu.