

Prevalence of CKDu in Medawachchiya area with special reference to the physical characteristics and source of drinking water

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Chronic Kidney Disease of uncertain aetiology (CKDu) has been identified as a major health problem in some parts of the country, showing the highest prevalence in Medawachchiya. Previous studies have hypothesized the link of CKDu occurrence with the drinking water quality, however it was not characterized yet using physical characteristics of the drinking water sources viz. age of the well, dimensional measurements of the well etc; Hence, this study focused on examining potential association between the physical characteristics of the water resources with prevalence of CKDu in Medawachchiya Divisional Secretariat area. Current uses of drinking water sources of the study area were also assessed. Relevant data of households were obtained through field and questionnaire surveys from 2015 to 2016 for a total of 385 households (340 dug wells; 45 tube wells) which represented 20 Grama Niladhari divisions. Collected data were summarized for descriptive statistics using SPSS® 21. Results revealed that, around 90 % of the CKDu affected patients used water from dug wells. However, 52 % and 25 % of the people in the study area used filtered water for the source of drinking water and cooking respectively. Majority of them used either dug or tube well water for bathing and washing. It was also revealed that, the highest CKDu cases (62.9 %) recorded from the people those who used dug wells, which were dug during 1-25 years while 68.2 % of the records from the people who used dug wells around 6.40–9.15 m in depth showing possible contaminations of water resources in the study area since recent decades. Therefore, further studies needed to be carried out to evaluate biological significance of the contaminants and physicochemical characteristics of drinking waters to assess prevalence of CKDu with physical characteristics of selected drinking water sources located in the study area.

Keywords: chronic kidney disease, drinking water sources, dug wells, questionnaire survey, tube wells

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