7.3.3 CORRELATION BETWEEN THE ULTRASOUND SCAN APPEARANCE OR RENAL PARENCHYMA AND KIDNEY LENGTH WITH SERUM CREATININE LEVELS IN CHRONIC KIDNEY DISEASE OF UNKNOWN ORIGIN

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Introduction: Chronic kidney disease of unknown origin (CKDu) is a major noncommunicable disease prevalent in certain provinces of Sri lanka. Serum creatinine is used to monitor the disease progress. In addition, Ultra sound scan (USS) is done to detect the renal parenchymal changes and to rule out the possibility of an obstruction.

Aim: To assess the correlation between the echo pattern of renal parenchyma and the kidney lengths with serum creatinine level in diagnosed CKDu patients.

Materials and Method: Study composed of 122 diagnosed CKDu patients, 95 males and 27 females, aged 29 years to 85 years from the Base Hospital, Mahiyanganaya with their serum creatinine levels and USS reports. The cases were selected randomly. Kidney bipolar lengths were measured and echo pattern of renal parenchyma was graded from one to three by the Consultant Radiologist. Normal- 1, Slightly increased echo pattern- 2 and Increased echo pattern- 3.

Results and Discussion: The mean right kidney length is 7.99cm (SD= 1.04) and mean left kidney length is 8.01cm (SD= 1.07). Correlation coefficient between serum creatinine and right kidney length was -0.470 and was statistically significant at 0.01 levels. Correlation coefficient between serum creatinine and left kidney length was -0.405 and was statistically significant at 0.01 levels. Correlation coefficient between serum creatinine and renal parenchymal echo pattern was 0.428 and was statistically significant at 0.01 levels.

Conclusion: Results show that kidney length reduces and renal parenchymal echogenicity increases with the increase of serum creatinine levels in CKDu.