

7.3.4 ENDEMIC CHRONIC KIDNEY DISEASE OF UNKNOWN AETIOLOGY OF SRI LANKA & HISTOPATHOLOGICAL CHANGES IN KIDNEYS OF ASYMPTOMATIC PATIENTS

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Background: A chronic kidney disease of unknown aetiology (CKDu) is endemic in the north central regions of Sri Lanka.

Objective: to analyse the histopathological features of kidneys in asymptomatic patients with CKDu

Methods: The study consisted of 234 asymptomatic individuals who have been detected by screening programmes and undergone renal biopsy during 2004 – 2011 period. Pathologic changes were categorized into 5 groups: 1, interstitial fibrosis +/- subtle tubular atrophy is the only change; 2, glomerulosclerosis with group 1 changes; 3, interstitial fibrosis, tubular atrophy and interstitial inflammation +/- glomerulosclerosis, 4, the predominant change is interstitial inflammation; 5, severe interstitial fibrosis with extensive glomerulosclerosis. Cases were divided into five clinical stages based on the glomerular filtration rate (GFR).

Results: There were 204/234 (87.2%) with interstitial renal disease. There were 65, 21, 115, 2 and 1 cases in groups 1 to 5 respectively. The mean GFR of groups 1 to 3 are 113.7 ± 43.2 , 86.8 ± 54.8 and 52.2 ± 30.4 respectively. The mean ages (in years) of groups 1 to 3 are 27 ± 12.9 , 41.5 ± 14.2 and 41.7 ± 11.5 respectively. The number of cases in clinical stages 1 to 5 are 70 (34.3%), 28 (13.7%), 84 (41.2%), 22 (10.8%) and 0 (0%) respectively. The male to female ratio was 2.6:1.

Conclusions: The earliest pathological manifestation of endemic CKDu appears to be interstitial fibrosis and interstitial inflammation a late secondary phenomenon. When a significant reduction in GFR occur interstitial fibrosis and inflammation, tubular atrophy and glomerulosclerosis have set in. Even among the asymptomatic patients majority have either clinical stage 3 or 4 disease, further highlighting the need for active surveillance.

7.3.5 SPECIAL KIND OF PIGMENTATION IN PALMS AND SOLES OF INHABITANTS OF PADAVI SRI PURA – A CKDu ENDEMIC REGION IN SRI LANKA.

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Introduction: Padavi Sripura is located 120 km north east to Anuradhapura, in Trincomalee District. Chronic kidney disease of unknown aetiology (CKDu) is emerging as the major health problem in the area. It has been identified as the leading cause for deaths during the last few years. Due to the asymptomatic nature of CKDu it is not being able to detect until it reaches the final stage.

Objective: To determine and compare the occurrence of bronze colour spotty pigmentation in palms and soles of CKDu affected and unaffected individuals in Padavi Sripura.

Methodology: A descriptive cross sectional study was conducted at the divisional hospital, Padavi Sripura in June 2011. Patients attending medical clinic and OPD were subjected to thorough dermatological examination. Palms and soles were cleaned properly prior to the examination. Fifty six diagnosed CKDu patients and 62 individuals who haven't diagnosed as CKDu patients were subjected to examination.

Results: Diameter of patches of bronze colour pigmentations that seemed to be located in deep layers of the skin varied from 3 mm to 25 mm. Most of them were circular or elongated in shape. It was prominent when placed in non pressurized areas. Slight illumination was noticed from these patches under torch light. Occurrence of spotty pigmentation was observed in palms of 42 (75%) and 48 (85.7%) soles of the CKDu patients observed during the study. Pigmentation was also observed in palms of 22 (35.4%) and soles of 26 (41.9%) of non CKDu individuals.

Conclusion: Occurrence of bronze colour spotty pigmentation of palms and soles of CKDu patients is significant and such an abnormal pigmentation has not been reported or documented previously. This couldn't be due to CKDu alone as it is present even in individuals who have not been diagnosed to suffer from CKDu. Further investigations are needed to consolidate the occurrence and pathophysiology of this abnormal pigmentation.