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A RETROSPECTIVE STUDY ON CLINICOPATHOLOGICAL DIAGNOSIS OF NEPHROTIC SYNDROME – A SINGLE CENTRE EXPERIENCE IN SRI LANKA
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Introduction: Histopathological analysis of renal biopsy is crucial for diagnosis, sub classification and etiological analysis of nephrotic syndrome. Histopathology pattern varies with the age, gender and geographical location. Our aim was to identify the histological patterns of the renal biopsies of the adult patients (>12years) presented with nephrotic syndrome to Teaching hospital Kandy, Sri Lanka.

Methods: A retrospective descriptive study of 345 renal biopsies, done from January 2015 to August 2018 for identification of histological pattern of the adult onset nephrotic syndrome was analyzed. It was collaborated with Department of Pathology, University of Peradeniya. Light microscopy and immunofluorescence studies were used but electron microscopy was not utilized due to lack of resources.

Results: A total of 345 native renal biopsies were analyzed. Majority of all biopsies 205 (59.4%) was from female patients. Most number of biopsies (n = 141, 40.8%) were done in the 20-39 year age group, followed by 110 (31.9%) in 40-59 year, 60 (17.3%) in 12-19 year, 34 (9.9%) in 60 years and above age groups. Minimal change disease (MCD) was the commonest histopathological diagnosis (n = 86, 25%) followed by lupus nephritis (LN) (n = 68, 20%), focal segmental glomerular sclerosis (FSGS) (n = 47, 14%), IgA nephropathy (n = 42, 12%), Diabetic nephropathy (DN) (n = 36, 10%) membranous nephropathy (MGN) (n = 30, 9%) and 9% from other etiologies such as acute glomerulonephritis (n = 7), amyloidosis (n = 5), etc.

MCD was quite equally distributed in both females (52.3%) and males (47.7%), predominantly in 20-39 year age group. But LN was significantly common in females (83.8%) in the same age group. LN class 4 consisted the majority of LN (85.2%) in both females (n=48) and males (n=10).

MGN (23.5%) was the commonest histopathological pattern in the age group of 60 and above, followed by DN (14.7%) and FSGS (14.7%) compared to MCD (11.7%).

Conclusions: MCD and LN constitute the two commonest histopathological varieties in nephrotic syndrome, which does not coincide with the global findings; FSGS is the most common cause of adult nephrotic syndrome worldwide. Unavailability of electron microscopy in input may cause over diagnosis of MCD. Growing awareness of systemic lupus erythematosus may have led to early referral for renal biopsy which results in early as well as increased diagnosis of LN. Leading diagnosis of MGN in the above 60 years emphasize the importance of excluding the secondary causes such as malignancies.