MON-017
SENSITIVITY AND SPECIFICITY OF SERUM PLA2 RECEPTOR ANTIBODIES IN DIAGNOSIS OF PRIMARY MEMBRANOUS NEPHROPATHY
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Introduction: Membranous nephropathy is a common cause of Nephrotic syndrome in adults and often requires a kidney biopsy to make a diagnosis, recent past there is a debate whether PLA2R antibodies will help in making a diagnosis of primary MGN without renal biopsy We carried out a prospective to Study to determine the association between serum anti-PLA2Rantibody and glomerular staining for PLA2R in Membranous Nephropathy Study design : Prospective observational, study duration: May 2016 to May 2018 Inclusion criteria: Adult Nephrotic syndrome those who are aged above 18 years undergoing kidney biopsy at our hospital
Methods: Material & Methods: Serum for anti-PLA2R antibody was sent prior to kidney biopsy in all subjects. The serum anti- PLA2R antibodies was tested by Indirect immunofluorescence staining using validated commercial kits(Euroimmun). The kidney biopsy samples were subjected to light microscopy, immunofluorescence testing for the panel of antibodies as per standard protocol. Subsequently PLA2R staining was done as per standard protocol in those subjects who showed features of membranous nephropathy
Results: In our study 13 out of 58 subjects who presented with nephrotic syndrome had positive serum anti-PLA2R Ab in samples analysed at presentation and prior to kidney biopsy. This account for 22.4% of the study subjects, while 45(77.6 %) subjects were negative for the same. Of the 13 subjects with positive serum anti-PLA2R Ab, 12 subjects had light microscopy and immunofluorescence findings of MGN on kidney biopsy. One subject who had FSGS-NOS type on kidney biopsy showed weak positive serum anti-PLA2R antibody. Among the other 45 subjects who did have serum anti-PLA2R antibody, there was additional 16 subjects who were diagnosed with primary MN and 1 with secondary MN by kidney biopsy.
This gives a Sensitivity of 41.38%, Specificity of 96.6%, Positive Predictive Value of 92.31%, Negative Predictive Value of 62.2% and diagnostic accuracy of 68.97% for the test for diagnosis of MN by anti-PLA2Rantibody Statistical analysis by Cohen’s kappa test showed a low agreement betweenserum anti-PLA2R Ab and kidney biopsy was 0.3793 (0.1647 - 0.594).
Conclusions: In our study the sensitivity and specificity of PLA2R antibodies in predicting adiagnosis of primary membranous nephropathy (pMN) 42.8% and 96.6% respectively Glomerular PLA2R staining had a sensitivity of 82.8% for diagnosis of MN and 85.5% for diagnosis of primary MN.
The concordance between serum antibodystesting and glomerular staining in our study showed only slight agreement as percohen kappa association test.
The test for serum anti-PLA2R Ab is useful when it is positive, because it almost always confirms the presence of MN even without kidney biopsy, but when the test is negative, it does not exclude MN since there were patients with negative antibody test, but histology showed primary MN.
We think the serum test results depend on timing of the test from the disease onset, the activity of disease and the amount of antibody in the serum at that point and the testing methodology.

MON-018
LUPUS HAS HIGHER GLOMERULAR AND TUBULAR PATHOLOGY SEVERITY INDEX THAN NON-LUPUS NEPHROTIC SYNDROME
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Introduction: Lupus is a multisystemic disease where it influences many organs including the kidneys through production of autoantibodies and immune complex formation which results in proteinuria and nephrotic syndrome. Renal pathology abnormalities may be more severe in lupus involvement. The study aimed to compare severity of pathologic lesions among compartments in kidney tissue between lupus and non-lupus (nephrotic syndrome) patients.
Methods: All patients with NS were grouped as lupus and non-lupus, later were biopsied and the cores were stained with Hema-toxylin-Eosin, PAS, Masson’s Trichrome to look at glomerular, tubular, interstitial and vascular involvements. Glomerular abnormalities including mesangial hypercellularity or mesangial matrix expansion, endocapiller hypercellularity, wireloops, membranous. Severity was assessed from no abnormality, cellular crescent, fibrocrescent, cellular crescent, and fibrous crescent/fibrosis. Tubular abnormalities including early course such as cloudy swelling, vacuolization, infiltration of inflammation cells to tubular atrophy, and presence of casts. Interstitial and vascular abnormalities were scored according to activity, severity and distribution.
Results: This study included 50 patients, consisted of 24 (48%) lupus NS (3 males and 21 females) and 26 (52%) non-lupus NS (15 males and 11 females), aged 27.04 ± 10.83 years with mean SBR 123.53 ± 16.69 mmHg and DBP 79.56 ± 10.19 mmHg. Twenty four hours urinary protein was 1893.45 ± 1277.36 ml among lupus compared to 2163.22 ± 1421.7 ml in non-lupus. Hemoglobin was 10.69 ± 2.60 g/dl in lupus compared to 13 ± 2.69 g/dl in non-lupus. Creatinine was 1.51 ± 1.55 mg/dl in lupus compared to 1.67 ± 1.69 mg/dl in non-lupus. Twenty four hours protein excretion was 5.85 ± 5.65 g/24 hour in lupus compared to 3.83 ± 4.28 g/24 hour in non-lupus. Urine cast was 15 (62.5%) in lupus compared to 11 (42.1%) in non-lupus. Independent student’s t-test was conducted to compare severity indexes between lupus and non-lupus NS. There was a significant difference in glomerular severity index between lupus (5 ± 2.17) and non-lupus (3.45 ± 2.3): p = 0.024. There was a significant difference in tubular severity index between lupus (3.79 ± 1.84) and non-lupus (2.32 ± 1.77): p = 0.007. There was a significant difference in renal pathology severity index between lupus (12.29 ± 4.41) and non-lupus (8.68 ± 3.99): p = 0.006.
Conclusions: There are significant higher of renal pathology severity index between lupus nephritis and non-lupus NS composed by higher glomerular and tubular severity index. It may implicate that histopathological process difference play an important role in certain clinical differences.

MON-019
BETA-3-INTEGRIN STAINING IN KIDNEY BIOPSY AND CORRELATION WITH RESPONSE TO CALCINEURIN INHIBITORS IN STEROID RESISTANT NEPHROTIC SYNDROME
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Introduction: Steroid-resistant nephrotic syndrome (SRNS) is difficult to treat and carries a high risk of progression to chronic kidney disease (CKD). Calcineurin inhibitors (CNIs) are preferentially used in the treatment of SRNS. Variable response to treatment, the risk of nephrotoxicity and high rates of relapse on stopping treatment are major concerns with CNIs. Urokinase-type Plasminogen Activator Receptor (uPAR) – β3 integrin signaling is involved in the calcineurin-nuclear factor of activated T cells (NFAT) induced podocyte injury and hence the antiproteinuric effect of CNIs may be partially attributed to its inhibition of uPAR-β3 integrin signaling axis in podocytes. We looked at the correlation between β3 integrin staining and CNI response in our cohort of patients to determine if patients with positive β3 integrin staining show a favorable response to CNIs.