P222

P222 -IgM-dominant Glomerular Immune Complex Deposition in the Renal Allograft: a case series

Dr Neeru Agarwal[1], Dr Michelle Willicombe[1], Dr Candice Roufosse[1,2]
[1]Imperial College Renal and Transplant Centre, London, United Kingdom, [2]Department of Histopathology, Hammersmith Hospital, London, United Kingdom

Introduction: Immunoglobulin M (IgM) nephropathy is an uncommon glomerular disease characterised by mesangial IgM deposition with electron dense deposits. It can be seen in renal transplant biopsies in association with infections and chronic antibody mediated rejection (cAMR). However, there are no series in the literature addressing the significance of IgM deposition in the renal allograft.

Methods: We retrospectively analysed 16 patients with ≥2 transplant biopsies, of which the index biopsy had mesangial staining for IgM on immunofluorescence, mesangial electron dense deposits on electron microscopy, and excluded cases with systemic infection, autoimmune disease, thrombotic microangiopathy or cAMR. The median follow-up was 87 months, and we compared the clinicopathological features associated with transient and persistent IgM deposition in renal transplant biopsies at least 6 months apart.

Results: None of the patients had a native kidney biopsy to confirm underlying cause of ESRD. The median time from transplant to detection of mesangial IgM deposits was 25.5 months. The indication for biopsy was surveillance (43.75%) or graft dysfunction (56.25%). At biopsy, 68.75% had renal impairment (creatinine >100umol/L), 43.75% had proteinuria (urine PCR>100mg/mmol) with no significant hypoalbuminaemia. The glomerular pattern on light microscopy was mesangial hypercellularity (87.5%), focal segmental glomerulosclerosis (50%), and average interstitial fibrosis and tubular atrophy (IFTA) was 16.25%. All cases showed mesangial staining for IgM and mesangial electron dense deposits.

Baseline patient demographics and clinicopathological findings between the transient and persistent IgM group are shown in Table 1.

Death censored allograft survival was no different between the groups, p=0.17. There was also no difference in patient survival (p=0.24) nor all cause graft loss (p=0.24).

Conclusion: We conclude that IgM-dominant mesangial deposition in the renal allograft is a morphological pattern with no apparent clinical significance in the majority of patients. It is usually detected after the second year of transplant and most cases show mesangial hypercellularity. The aetiology of transient IgM deposition was not determined in this study and requires a larger cohort.