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## **Nephrotic Syndrome in Post Hematopoietic Stem Cell Transplantation Patients – 20 Years' Experience in a Single Center**

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**Objectives:** Nephrotic syndrome (NS) is an extremely rare complication of hematopoietic stem cell transplantation(HCT) that usually occurs in association with chronic graft-versus-host disease. There are only a few case reports and case series of NS following HCT that have been published.

**Methods:** We reviewed the records of kidney biopsy in Seoul St. Mary's Hospital between January, 2008 and January, 2019, and identified 32 kidney biopsy specimens from patients obtained after HCT. All patients underwent kidney biopsy for proteinuria or increased creatinine. Patient demographic data and laboratory data were collected for analysis.

**Results:** Of the 32 cases, 21 were male and 11 were female patients. The mean patient age was 43.7(range: 15-68). Average follow-up period was 46.6 months (range: 2-107 months). The mean duration between HCT and renal biopsy was 33.2 months (range: 6–206 months). The underlying diseases resulting in the need for HCT were acute myeloid leukemia, 10 patients; acute lymphoid leukemia, 9 patients; aplastic anemia, 4 patients; myelodysplastic syndrome, 3 patients; multiple myeloma, 3 patients; chronic myeloid leukemia, 1 patient; amyloidosis, 1 patient; and blastic plasmacytoid dendritic cell neoplasm, 1 patient. The most common histopathological finding was membranous glomerulonephritis (N=20). Other glomerular diseases identified were thrombotic microangiopathy, amyloidosis, C1q nephropathy, focal segmental glomerulosclerosis and diabetic nephropathy. During the follow-up period, 25 patients were treated with steroids or cytotoxic agents.18 patients were treated with angiotensin II receptor antagonist. There was no statistically significant difference between the groups in terms of ANOVA of the decrease in proteinuria according to steroids or cytotoxic agents treatment ( $p = 0.075$ ) and ARB treatment ( $p = 0.156$ ).

**Conclusions:** Based on our result, more case will require discussion of treatment options for NS following HCT.