

Multiple anti-slit autoantibodies in post-transplant recurrent focal segmental glomerulosclerosis

Cohort

 Kidney transplant recipients with recurrent FSGS
N=19
10 - Complete remission
4 - Partial remission
5 - Non responders

 Multi-institutional

Methods

 Dual IF staining: nephrin, podocin or Kirrel1 by SIM

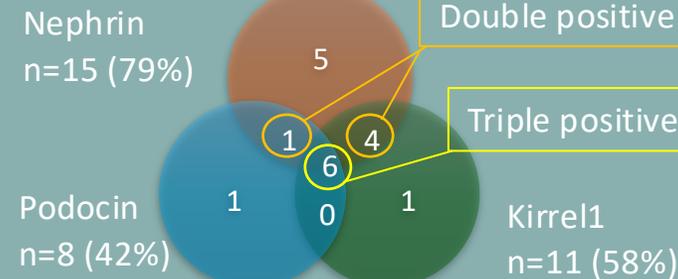
 Plasma: Elisa Anti-nephrin, anti-podocin and anti-Kirrel1 autoantibodies

Results

IgG deposition on podocytes rFSGS n=19

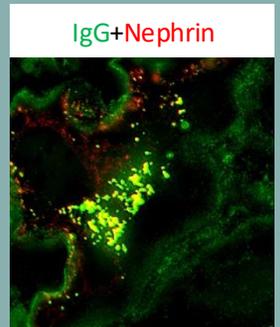
IgG with co-localization	17 (89%)
IgG without co-localization	1 (5%)
IgG negative	1 (5%)

Single, double, and triple-positive for IgG localized with nephrin, podocin, or Kirrel1

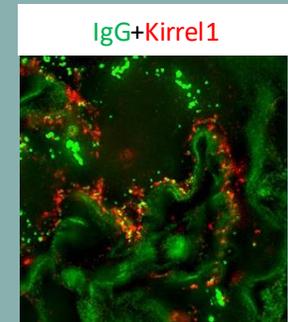
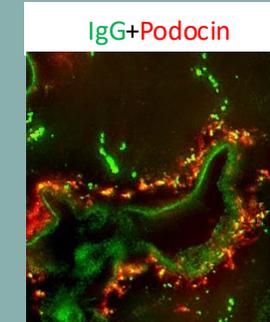


7 (78%) of 9 patients with available plasma or serum samples during recurrence showed ELISA results concordant with the IF findings

Nephrin: localize to the intracellular areas of podocytes



Podocin and Kirrel1: localized to the slit diaphragm



Conclusion: Multiple anti-slit autoantibodies were commonly identified in rFSGS. Future studies are needed to clarify the pathogenic and therapeutic significance of these anti-slit antibodies.

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Visual abstract by **Anant SSP**
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