

# High-sensitivity anti-nephrin autoantibody assay predicts steroid resistance and glomerulonephritis in childhood idiopathic nephrotic syndrome

## Objective

To determine whether baseline anti-nephrin autoantibody levels predict steroid response and clinical outcomes in childhood idiopathic nephrotic syndrome



Prospective Cohort Study  
July'24-June'25



Newly diagnosed idiopathic NS were included  
N=63 (M=45,F=18)



Circulating anti-nephrin autoantibodies were measured

Blood samples taken before PSL using HISCL-5000 (Sysmex)

## Results



Positive group  
>807 SU/mL (n=50)

High titre positive  
≥10,000 SU/mL (n=6)

Negative group  
(n=7)

SSNS  
(CR <4 weeks)

49

1

0

SRNS (No remission in 4 weeks)

1

5

3

GN (other forms of GN e.g. IgAN)

0

0

4

PSL: Prednisolone; SSNS: Steroid-Sensitive Nephrotic syndrome, SRNS: Steroid-Resistant nephrotic syndrome, CR: Complete Remission, GN: Glomerulonephritis, IgAN: IgA Nephropathy

**Conclusion:** Anti-nephrin autoantibodies were positive in all SSNS cases, supporting a pathogenic role. Incorporating anti-nephrins non-anti-nephrin-mediated mechanisms, while high titers correlated with delayed remission. Incorporating anti-nephrin autoantibody profiling into the initial diagnostic workup may therefore contribute to early risk stratification and personalized treatment strategies in pediatric NS.

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