

Supplementary Material

Supplementary Methods

Definitions, diagnostic criteria and studies performed for patient selection:

- Nephrotic syndrome: presence of proteinuria > 3.5g / 24h in adults and > 40mg / m² / h in children, serum albumin <3.5g / dL and edema.
- Idiopathic minimal change disease (DCM): absence of lesions in optical microscopy and evidence of diffuse podocyte fusion in electron microscopy, after ruling out history of drug use and associated lymphoproliferative processes.
- Idiopathic focal segmental glomerulosclerosis (FSGS): evidence of typical lesions in optical microscopy associated with diffuse podocyte effacement in electron microscopy and after exclusion of secondary etiologies including: reduction of renal mass, morbid obesity, HIV-associated nephropathy, heroin or cocaine use, parvovirus B19 infection, consumption of analgesics, bisphosphonates or interferon, vesicoureteral reflux or obstructive sleep apnea. All patients with FSGS presented the classic variant (NOS). In the immunofluorescence study, segmental deposits of IgM were detected in 15 patients, deposits of C3 in 5 patients, deposits of IgM and C3 in 4 patients and absence of deposits in 9 patients.
- A genetic study to rule out pathogenic genetic mutations was only performed to patients with histopathological pattern of MCD or FSGS who showed corticoreistance and were < 35 years old. Genetic studies were performed using a kidney-panel previously described and validated [50]. Overall, 9 patients were screened. In 4 cases, mutations of recognized pathogenic role were identified: one 19 year female patient carrying a NPHS2 mutation, 2 unrelated male patients aged 23 and 28 years respectively carrying a collagen IV α 3 mutation with no clinical or extrarenal signs of Alport syndrome, and a 30 female patient carrying a LMB1X mutation with no external or radiological signs of nail-patella syndrome. All these patients were excluded from the study. In none of these 4 cases there was a known family history of nephropathy.

- Idiopathic membranous nephropathy (NM): evidence of characteristic data in optical microscopy and evidence of subepithelial deposits of IgG and C3 in the immunofluorescence study. In all patients, secondary causes were ruled out, in a protocolized study, including infections, malignancies, autoimmune diseases and drug use.

Supplementary table 1: Correlation matrix among variables of MCD patients.

	Age	creatinine	GFR	Albumin	Proteinuria	suPAR	Hgl	Hx	TNF α	IFN γ	IL1R	IL6
Creatinine	0.32											
GFR	-0.84**	-0.76**										
Albumin	0.01	-0.03	0.06									
Proteinuria	0.07	0.02	-0.01	0.33								
suPAR	0.38*	0.22	-0.38*	-0.26	0.38*							
Hgl	0.05	0.08	-0.06	-0.39*	0.25	0.40*						
Hx	-0.09	-0.01	0.07	-0.42*	0.33	0.49**	0.82**					
TNFα	0.07	-0.01	-0.037	-0.19	0.40*	-0.26	0.02	0.09				
IFNγ	-0.07	-0.04	0.018	-0.10	-0.35	-0.18	-0.11	0.05	0.18			
siIL1R	0.38	0.49**	-0.54	0.14	-0.09	0.27	0.19	0.09	-0.10	-0.01		
IL6	-0.35	-0.28	0.46	0.07	0.15	-0.09	0.45*	0.49**	0.10	-0.01	-0.33	
CRP	0.09	0.07	0.04	-0.16	0.19	0.13	0.36*	0.35*	0.17	0.04	0.28	0.41*

GFR: glomerular filtration rate; **CRP:** C-reactive protein, **siIL1r:** soluble IL1 receptor, **IL-6:** interleukin 6, **Hx:** hemopexin, **Hgl:** haptoglobin, **TNF α :** tumor necrosis factor alpha, **IFN γ :** interferón gamma, **suPAR:** soluble urokinase-type plasminogen activator receptor. *p<0.05; **p<0.01

Supplementary table 2: Correlation matrix among variables of FSGS patients.

	Age	creatinine	GFR	Albumin	Proteinuria	suPAR	Hgl	Hx	TNF α	IFN γ	sIL1R	IL6
Creatinine	-0.11											
GFR	-0.53**	-0.61**										
Albumin	-0.06	0.29	-0.21									
Proteinuria	0.02	-0.16	0.26	-0.23								
suPAR	-0.04	0.36	-0.21	-0.26	0.18							
Hgl	0.26	-0.09	-0.10	-0.40*	0.21	0.31						
Hx	0.27	-0.19	0.01	-0.43*	0.27	0.43*	0.86**					
TNFα	-0.05	-0.01	-0.06	-0.20	0.03	0.08	0.07	-0.03				
IFNγ	0.12	-0.08	-0.10	-0.13	-0.09	-0.09	-0.36	-0.38*	-0.15			
sIL1R	0.23	0.58**	-0.54*	0.024	-0.17	-0.11	-0.02	-0.21	0.35	0.28		
IL6	0.15	-0.16	0.03	-0.27	0.11	0.35	0.70**	0.79**	-0.13	-0.39*	-0.16	
CRP	0.12	0.04	0.07	-0.29	0.16	0.12	0.34*	0.39*	0.09	-0.08	0.14	0.40*

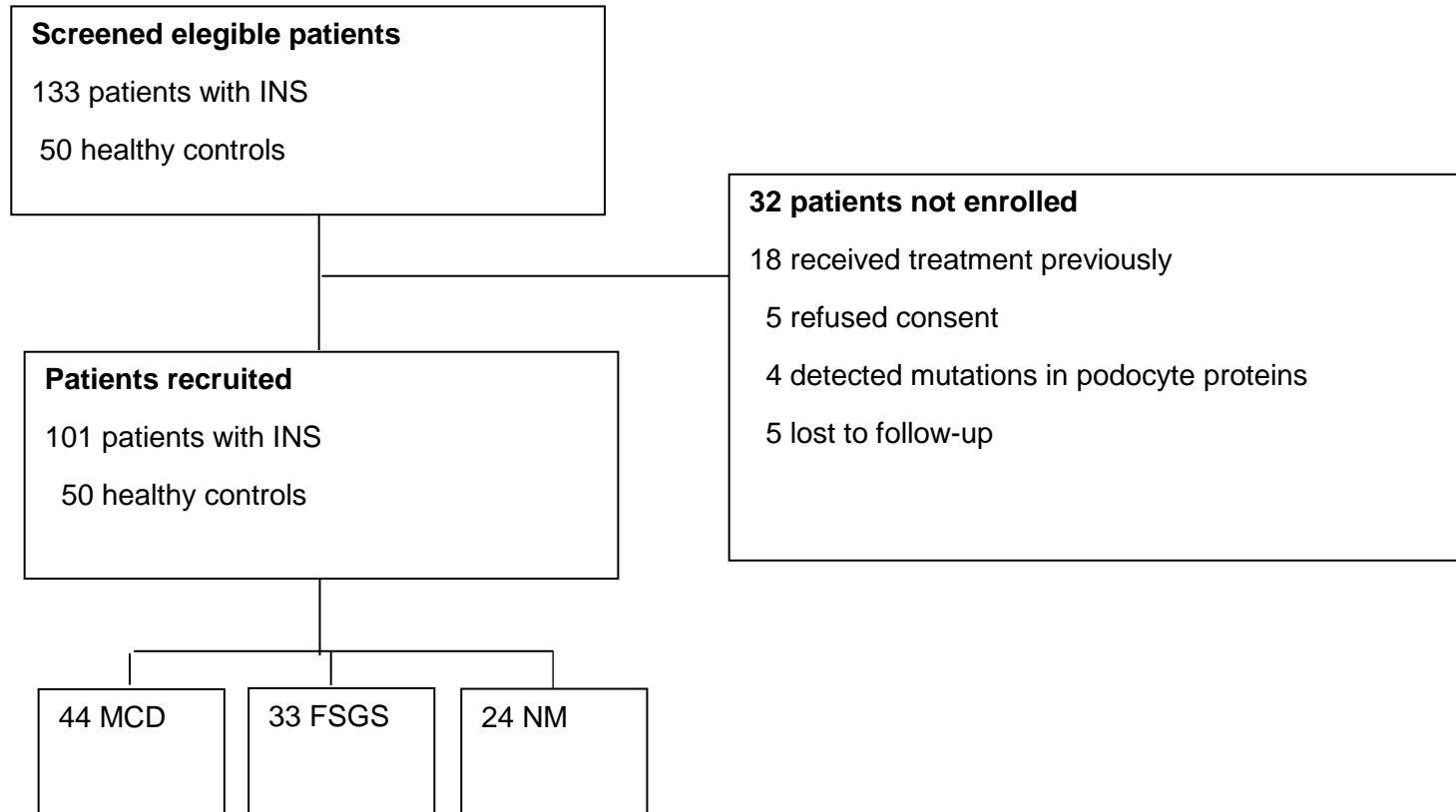
GFR: glomerular filtration rate; **CRP:** C-reactive protein, **sIL1r:** soluble IL1 receptor, **IL-6:** interleukin 6, **Hx:** hemopexin, **Hgl:** haptoglobin, **TNF α :** tumor necrosis factor alpha, **IFN γ :** interferón gamma, **suPAR:** soluble urokinase-type plasminogen activator receptor

Supplementary table 3: Correlation matrix among variables of MN patients.

	Age	creatinine	GFR	Albumin	Proteinuria	suPAR	Hgl	Hx	TNF α	IFN γ	sIL1R	IL6
Creatinine	0.19											
GFR	-0.57**	-0.87**										
Albumin	-0.04	0.24	-0.31									
Proteinuria	0.33	-0.11	-0.12	-0.34								
suPAR	0.38	0.39	-0.42	-0.16	-0.06							
Hgl	-0.11	-0.19	0.20	-0.19	0.39	0.05						
Hx	-0.22	-0.16	0.38	-0.23	0.11	0.16	0.47*					
TNFα	-0.03	-0.18	0.17	-0.42*	0.24	0.53*	0.57**	0.29				
IFNγ	0.25	-0.07	-0.07	-0.15	0.09	0.08	0.33	0.03	-0.03			
sIL1R	0.36	0.35	-0.55*	-0.42*	-0.07	0.55*	-0.04	-0.39	0.11	0.11		
IL6	0.29	0.05	-0.23	-0.37	-0.09	0.11	-0.26	-0.38	-0.02	-0.22	0.16	
CRP	0.09	0.03	-0.04	-0.14	-0.06	0.03	0.12	0.13	0.05	0.06	0.09	0.11

GFR: glomerular filtration rate; **CRP:** C-reactive protein, **sIL1r:** soluble IL1 receptor, **IL-6:** interleukin 6, **Hx:** hemopexin, **Hgl:** haptoglobin, **TNF α :** tumor necrosis factor alpha, **IFN γ :** interferón gamma, **suPAR:** soluble urokinase-type plasminogen activator receptor

Supplementary figure 1: Flow-chart of patient selection



INS: nephrotic idiopathic syndrome, **MCD:** minimal-change disease; **FSGS:** focal segmental glomerulosclerosis; **MN:** membranous nephropathy