

Supplementary Table 1. Changes in serum creatinine levels and eGFR in all patients from 12 months before to 12 months after the onset of spironolactone treatment

Variable	Data (n = 42)	P value [†]	
		$\Delta 0^{\ddagger}$	$\Delta 3^{\S}$
Creatinine (mg/dL)		0.071*	
–12 mo	1.28 ± 0.04		
–9 mo	1.26 ± 0.04		
–6 mo	1.30 ± 0.04		
–3 mo	1.30 ± 0.04		
Baseline	1.26 ± 0.05		
+3 mo	1.33 ± 0.05	0.036	
+6 mo	1.32 ± 0.05	0.591	> 0.999
+9 mo	1.36 ± 0.05	0.026	> 0.999
+12 mo	1.35 ± 0.06	0.711	> 0.999
eGFR (mL/min/1.73 m ²)		0.066*	
–12 mo	64.61 ± 2.59		
–9 mo	65.37 ± 2.58		
–6 mo	64.02 ± 2.74		
–3 mo	62.98 ± 2.23		
Baseline	66.57 ± 2.96		
+3 mo	62.51 ± 2.73	0.028	
+6 mo	64.08 ± 3.34	> 0.999	> 0.999
+9 mo	61.84 ± 3.17	0.056	> 0.999
+12 mo	63.09 ± 3.30	0.261	> 0.999

Data are presented as mean ± standard error.

eGFR, estimated glomerular filtration rate.

*Time-effect was tested by linear mixed model; [†]statistical significance was evaluated by linear mixed model; [‡]the mean differences of each time point compared to baseline; [§]the mean differences of each time point compared to the values 3 months previously.

Supplementary Table 2. Changes in serum sodium and potassium levels and blood pressure in all patients for the 12 months after the onset of spironolactone treatment

Variable	Data (n = 42)	P value [†]	
		$\Delta 0^{\ddagger}$	$\Delta 3^{\S}$
Sodium (mEq/L)		0.033*	
Baseline	141.3 ± 0.4		
+3 mo	140.5 ± 0.3	> 0.999	
+6 mo	140.8 ± 0.2	> 0.999	> 0.999
+9 mo	140.3 ± 0.3	0.732	> 0.999
+12 mo	139.5 ± 0.2	0.082	> 0.999
Potassium (mEq/L)		0.118*	
Baseline	4.41 ± 0.04		
+3 mo	4.49 ± 0.04	> 0.999	
+6 mo	4.51 ± 0.05	> 0.999	> 0.999
+9 mo	4.62 ± 0.06	0.172	> 0.999
+12 mo	4.49 ± 0.08	> 0.999	> 0.999
Systolic blood pressure (mmHg)		0.122*	
Baseline	120.0 ± 2.4		
+3 mo	114.8 ± 2.6	> 0.999	
+6 mo	117.1 ± 2.2	> 0.999	> 0.999
+9 mo	110.9 ± 2.4	0.021	0.381
+12 mo	117.7 ± 1.9	> 0.999	0.382
Diastolic blood pressure (mmHg)		0.044*	
Baseline	74.5 ± 1.4		
+3 mo	70.2 ± 1.0	0.327	
+6 mo	71.6 ± 1.0	> 0.999	> 0.999
+9 mo	69.3 ± 1.1	0.044	> 0.999
+12 mo	71.1 ± 1.1	0.578	> 0.999

Data are presented as mean ± standard error.

*Time-effect was tested by linear mixed model; [†]statistical significance was evaluated by linear mixed model; [‡]the mean differences of each time point compared to baseline; [§]the mean differences of each time point compared to the values 3 months previously.

Supplementary Table 3. Changes in the total-protein-to-creatinine ratio levels in the low- and high-grade IgAN groups from 12 months before to 12 months after the onset of spironolactone treatment

Variable	Data (n = 30), (mg/g)	P value [†]		P value of time × group effect
		$\Delta 0^{\S}$	$\Delta 3^{\parallel}$	
Low grade IgAN (grade < 4) (n = 14)		0.030*		0.220 [†]
–12 mo	294.0 ± 30.7			
–9 mo	449.0 ± 33.6			
–6 mo	250.3 ± 33.9			
–3 mo	282.7 ± 18.3			
Baseline	480.0 ± 45.9			
+3 mo	333.0 ± 55.2	0.600		
+6 mo	447.8 ± 89.0	> 0.999	0.966	
+9 mo	353.8 ± 56.9	> 0.999	0.200	
+12 mo	257.7 ± 26.1	0.010	0.197	
High grade IgAN (grade ≥ 4) (n = 16)		0.001*		
–12 mo	586.4 ± 106.4			
–9 mo	392.6 ± 61.1			
–6 mo	409.8 ± 90.6			
–3 mo	458.3 ± 56.1			
Baseline	646.8 ± 69.0			
+3 mo	329.4 ± 51.0	0.057		
+6 mo	339.1 ± 66.0	0.002	0.359	
+9 mo	351.4 ± 51.4	0.003	0.628	
+12 mo	383.8 ± 67.4	0.036	0.930	

Data are presented as mean ± standard error.

IgAN, immunoglobulin A nephropathy.

*Time-effect of each group was tested by linear mixed model; [†]comparing between time-effect of two groups was tested by linear mixed model; [‡]statistical significance was evaluated by linear mixed model; [§]the mean differences of each time point compared to baseline; ^{||}the mean differences of each time point compared to the values 3 months previously.

Supplementary Table 4. Changes of serum creatinine levels and eGFR in the low- and high-grade IgAN groups from 12 months before to 12 months after the onset of spironolactone treatment

Variable	Low grade IgAN (n = 14)		High grade IgAN (n = 16)		P value of time × group effect
	Mean ± SE	P value [‡] of Δ0 [§]	Mean ± SE	P value [‡] of Δ0 [§]	
Creatinine (mg/dL)		0.192*		0.81*	0.339 [†]
–12 mo	1.26 ± 0.06		1.35 ± 0.06		
–9 mo	1.18 ± 0.04		1.36 ± 0.06		
–6 mo	1.28 ± 0.07		1.38 ± 0.05		
–3 mo	1.26 ± 0.06		1.38 ± 0.06		
Baseline	1.30 ± 0.08		1.37 ± 0.06		
+3 mo	1.38 ± 0.10	> 0.999	1.42 ± 0.06	> 0.999	
+6 mo	1.38 ± 0.09	> 0.999	1.40 ± 0.06	> 0.999	
+9 mo	1.42 ± 0.12	> 0.999	1.48 ± 0.07	> 0.999	
+12 mo	1.60 ± 0.17	> 0.999	1.40 ± 0.07	> 0.999	
eGFR (mL/min/1.73 m ²)		0.176*		0.075*	0.658 [†]
–12 mo	60.10 ± 6.23		60.95 ± 3.04		
–9 mo	63.53 ± 5.62		60.66 ± 3.27		
–6 mo	60.63 ± 7.93		59.12 ± 2.57		
–3 mo	58.30 ± 4.32		59.49 ± 2.60		
Baseline	57.99 ± 5.70		59.29 ± 3.38		
+3 mo	55.33 ± 6.22	> 0.999	57.12 ± 2.90	> 0.999	
+6 mo	54.74 ± 5.98	> 0.999	57.80 ± 3.39	> 0.999	
+9 mo	55.54 ± 7.40	> 0.999	54.48 ± 3.08	> 0.999	
+12 mo	49.47 ± 6.85	> 0.999	57.49 ± 3.44	> 0.999	

eGFR, estimated glomerular filtration rate; IgAN, immunoglobulin A nephropathy; SE, standard error.

*The time-effect of each group was tested by linear mixed model; [†]the time-effects of two groups were compared by linear mixed model; [‡]statistical significance was evaluated by linear mixed model; [§]the mean differences of each time point compared to baseline.

Supplementary Table 5. Changes in serum sodium and potassium levels and blood pressure in the low- and high-grade IgAN groups for the 12 months after the onset of spironolactone treatment

Variable	Low grade IgAN (n = 14)		High grade IgAN (n = 16)		P value of time × group effect
	Mean ± SE	P value [†] of Δ0 [§]	Mean ± SE	P value [†] of Δ0 [§]	
Sodium (mEq/L)		0.601*		0.188*	0.896 [†]
Baseline	142.0 ± 0.7		141.6 ± 0.8		
+3 mo	141.7 ± 0.8	0.826	140.3 ± 0.4	> 0.999	
+6 mo	140.7 ± 0.8	0.547	140.8 ± 0.4	> 0.999	
+9 mo	140.3 ± 0.6	0.497	140.1 ± 0.5	0.436	
+12 mo	139.7 ± 0.4	0.369	139.8 ± 0.5	0.907	
Potassium (mEq/L)		0.146*		0.864*	0.517 [†]
Baseline	4.30 ± 0.09		4.53 ± 0.05		
+3 mo	4.43 ± 0.09	0.508	4.56 ± 0.07	> 0.999	
+6 mo	4.73 ± 0.04	0.166	4.57 ± 0.06	> 0.999	
+9 mo	4.93 ± 0.15	0.049	4.66 ± 0.07	0.929	
+12 mo	4.50 ± 0.12	0.438	4.53 ± 0.12	> 0.999	
Systolic blood pressure (mmHg)		0.079*		0.173*	0.213 [†]
Baseline	111.1 ± 1.9		119.6 ± 3.3		
+3 mo	106.9 ± 2.9	0.397	111.4 ± 2.3	0.552	
+6 mo	121.9 ± 3.8	0.066	111.8 ± 4.1	> 0.999	
+9 mo	106.3 ± 3.4	0.331	110.0 ± 3.1	0.455	
+12 mo	116.0 ± 3.3	0.255	112.2 ± 2.7	> 0.999	
Diastolic blood pressure (mmHg)		0.242*		0.477*	0.700 [†]
Baseline	72.5 ± 1.9		72.6 ± 1.2		
+3 mo	67.5 ± 1.9	0.275	68.6 ± 1.1	0.488	
+6 mo	72.5 ± 1.9	> 0.999	70.6 ± 2.1	> 0.999	
+9 mo	66.3 ± 1.4	0.140	70.0 ± 1.6	> 0.999	
+12 mo	71.0 ± 2.5	0.660	69.1 ± 1.8	> 0.999	

IgAN, immunoglobulin A nephropathy; SE, standard error.

*Time-effect of each group was tested by linear mixed model; [†]the time-effects of two groups were compared by linear mixed model; [‡]statistical significance was evaluated by linear mixed model; [§]the mean differences of each time point compared to baseline.