

Supplementary Materials: Polymorphisms of the *ELANE* Gene Promoter Region in End-Stage Chronic Kidney Disease Patients

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Table 1. Clinical and sociodemographic data, dialysis efficiency, hematological values and iron metabolism, inflammatory and nutritional markers for the polymorphism c.-903T>G.

Evaluated Variables	Total Population (n = 123)	c.-903T>G		p value
		TT (n = 111)	TG (n = 12)	
Clinical data and dialysis efficiency markers				
Age (years)	65.3 ± 13.9	65.2 ± 13.5	66.4 ± 17.2	0.776
Gender (men %)	56.1	54.1	75.0	0.165
CVC (n %)	18 (14.6)	18 (16.2)	0 (0.0)	0.211
AVF (n %)	105 (85.4)	93 (83.8)	12 (100)	0.353
Diabetic patients (n %)	45 (36.6)	39 (35.1)	6 (50.0)	0.780
Time on dialysis (years)	2.5 (1.2–5.2)	2.7 (1.2–5.3)	2.2 (1.1–5.1)	0.627
URR (%)	75.9 ± 6.3	75.9 ± 6.0	76.8 ± 8.4	0.824
Kt/V	1.5 ± 0.3	1.5 ± 0.3	1.5 ± 0.2	0.619
Creatinine (mg/dL)	8.3 ± 2.9	8.3 ± 2.9	8.7 ± 2.9	0.680
Darbopoeitin (µg/kg/week)	0.4 (0.2–0.7)	0.4 (0.2–0.8)	0.6 (0.2–0.7)	
Hematological data				
Hemoglobin (g/dL)	11.8 ± 1.2	11.8 ± 1.4	11.9 ± 1.4	0.824
Hematocrit (%)	36.8 ± 4.5	36.8 ± 4.5	36.5 ± 4.6	0.808
Erythrocytes (×10 ¹² /L)	3.8 ± 0.5	3.8 ± 0.5	3.8 ± 0.5	0.975
MCV (fL)	95.8 ± 4.9	95.8 ± 5.0	95.0 ± 4.3	0.557
MCH (pg)	30.8 ± 2.1	30.7 ± 2.1	31.4 ± 1.9	0.352
MCHC (g/dL)	32.2 ± 1.2	32.1 ± 1.2	32.7 ± 1.1	0.148
Reticulocytes (×10 ⁹ /L)	50.5 ± 28.6	50.2 ± 27.1	53.9 ± 45.3	0.714
RPI	1.0 ± 0.6	1.0 ± 0.5	1.0 ± 0.9	0.754
Leucocytes (×10 ⁹ /L)	6.2 ± 1.8	6.2 ± 1.8	6.2 ± 1.8	0.965
Neutrophils (×10 ⁹ /L)	3.9 ± 1.4	3.8 ± 1.4	3.9 ± 1.2	0.921
Lymphocytes (×10 ⁹ /L)	1.6 ± 0.6	1.6 ± 0.6	1.6 ± 0.6	0.618
Neutrophil/lymphocyte ratio	2.6 ± 1.3	2.6 ± 1.3	2.8 ± 1.3	0.640
Iron metabolism markers				
Ferro (mg/dL)	43.3 ± 25.6	42.2 ± 24.2	53.8 ± 35.4	0.134
Transferrina (mg/dL)	177.6 ± 33.9	177.2 ± 34.2	181.7 ± 32.4	0.665
Transferrin saturation (%)	17.9 ± 11.4	17.3 ± 10.4	22.6 ± 18.7	0.134
Ferritin (ng/mL)	400.2 ± 157.5	399.7 ± 151.7	404.9 ± 212.3	0.914
sTfR (nmol/L)	23.9 ± 11.5	23.9 ± 11.3	24.8 ± 13.3	0.780
Inflammatory related variables				
CRP (mg/dL)	4.8 (2.2–13.3)	4.9 (2.2–14.4)	3.7 (1.9–8.9)	0.509
IL-6 (pg/mL)	2.2 (1.3–4.0)	2.1 (1.3–3.9)	2.3 (1.6–5.0)	0.551
OxLDL (U/L)	34.9 ± 11.0	34.9 ± 10.8	34.1 ± 13.1	0.805
Elastase (ng/mL)	30.5 (21.2–40.8)	30.7 (21.2–41.1)	28.7 (19.3–38.9)	0.673
Elastase/neutrophil ratio	8.8 ± 4.5	8.9 ± 4.6	8.0 ± 3.2	0.513
Nutritional markers				
Albumin (g/dL)	3.9 ± 0.4	3.9 ± 0.4	4.0 ± 0.3	0.313
BMI (Kg/m ²)	25.9 ± 4.6	25.9 ± 4.7	26.0 ± 3.5	0.947

AVF: arteriovenous fistula; BMI: body mass index; CRP: C-reactive protein; CVC: central venous catheter; Kt/V: dialysis clearance of urea; IL-6: interleukin 6; MCH: mean cell hemoglobin; MCHC: mean cell hemoglobin concentration; MCV: mean cell volume; oxLDL: oxidized low-density lipoprotein; RDW:

red cell distribution width; RPI: reticulocyte production index; s-TfR: soluble transferrin receptor; URR: urea clearance ratio by dialysis in the dialysis time/urea distribution volume.

Table 2. Clinical and sociodemographic data, dialysis efficiency, hematological values and iron metabolism, inflammatory and nutritional markers for the polymorphism c.-741G>A.

Evaluated Variables	Total Population (n = 123)	c.-741G>A			p value
		GG (n = 84)	GA (n = 36)	AA (n = 3)	
Clinical data and dialysis efficiency markers					
Age (years)	65.3 ± 13.9	66.6 ± 13.4	61.9 ± 15.0	68.4 ± 3.6	0.226
Gender (men %)	56.1	52.4	63.9	66.7	0.474
CVC (n %)	18 (14.6)	12 (14.3)	6 (16.7)	0 (0.0)	0.726
AVF (n %)	105 (85.4)	72 (85.7)	30 (83.3)	3 (100)	
Diabetic patients (n %)	45 (36.6)	33 (39.3)	10 (27.8)	2 (66.7)	0.267
Time on dialysis (years)	2.5 (1.2–5.2)	2.7 (1.2–5.2)	2.5 (1.3–7.4)	2.4 (2.0–X)	0.386
URR (%)	75.9 ± 6.3	76.3 ± 6.0	74.9 ± 6.9	77.8 ± 4.7	0.448
Kt/V	1.5 ± 0.3	1.5 ± 0.4	1.4 ± 0.2	1.7 ± 0.1	0.351
Creatinine (mg/dL)	8.3 ± 2.9	8.2 ± 2.9	8.7 ± 2.9	6.7 ± 3.1	0.396
Darbopoeitin (µg/kg/week)	0.4 (0.2–0.7)	0.4 (0.2–0.7)	0.5 (0.2–0.7)	0.4 (0.4–X)	0.848
Hematological data					
Hemoglobin (g/dL)	11.8 ± 1.2	11.7 ± 1.4	12.2 ± 1.2	11.5 ± 1.3	0.102
Hematocrit (%)	36.8 ± 4.5	36.4 ± 4.6	38.0 ± 4.1	34.3 ± 4.3	0.131
Erythrocytes (×10 ¹² /L)	3.8 ± 0.5	3.8 ± 0.5	3.9 ± 0.4	3.5 ± 0.4	0.199
MCV (fL)	95.8 ± 4.9	95.4 ± 5.0	96.5 ± 4.7	98.5 ± 4.3	0.329
MCH (pg)	30.8 ± 2.1	30.5 ± 2.1	31.3 ± 2.0	32.6 ± 1.1	0.118
MCHC (g/dL)	32.2 ± 1.2	32.1 ± 1.1	32.3 ± 1.3	33.4 ± 0.5	0.162
Reticulocytes (×10 ⁹ /L)	50.5 ± 28.6	52.4 ± 30.2	45.4 ± 25.5	57.8 ± 4.1	0.445
RPI	1.0 ± 0.6	1.0 ± 0.6	0.9 ± 0.6	1.1 ± 0.2	0.601
Leucocytes (×10 ⁹ /L)	6.2 ± 1.8	6.2 ± 1.8	6.2 ± 1.6	8.8 ± 3.5	0.048
Neutrophils (×10 ⁹ /L)	3.9 ± 1.4	3.8 ± 1.3	3.6 ± 0.9	6.9 ± 3.7	<0.001
Lymphocytes (×10 ⁹ /L)	1.6 ± 0.6	1.6 ± 0.5	1.8 ± 0.7	1.3 ± 0.3	0.250
Neutrophil/lymphocyte ratio	2.6 ± 1.3	2.6 ± 1.2	2.3 ± 0.8	5.9 ± 4.5	<0.001
Iron metabolism markers					
Ferro (mg/dL)	43.3 ± 25.6	42.6 ± 26.3	44.3 ± 25.2	50.0 ± 6.2	0.858
Transferrina (mg/dL)	177.6 ± 33.9	177.1 ± 34.5	181.1 ± 30.0	150.0 ± 61.2	0.308
Transferrin saturation (%)	17.9 ± 11.4	17.5 ± 11.1	17.9 ± 11.7	28.3 ± 17.4	0.278
Ferritin (ng/mL)	400.2 ± 157.5	406.1 ± 167.4	382.4 ± 135.6	448.1 ± 131.4	0.655
sTfR (nmol/L)	23.9 ± 11.5	24.4 ± 12.1	23.1 ± 10.2	20.8 ± 7.4	0.754
Inflammatory related variables					
CRP (mg/dL)	4.8 (2.2–13.3)	3.9 (2.1–12.8)	5.8 (2.7–15.5)	3.5 (1.9–X)	0.490
IL-6 (pg/mL)	2.2 (1.3–4.0)	2.1 (1.3–3.7)	2.1 (1.5–4.3)	3.5 (0.9–X)	0.519
OxLDL (U/L)	34.9 ± 11.0	34.6 ± 9.5	33.9 ± 11.8	53.1 ± 25.5	0.013
Elastase (ng/mL)	30.5 (21.2–40.8)	32.3 (23.7–40.2)	27.9 (18.3–44.1)	18.9 (17.2–20.4)	0.441
Elastase/neutrophil ratio	8.8 ± 4.5	8.7 ± 3.5	9.5 ± 6.2	3.4 ± 1.1	0.074
Nutritional markers					
Albumina, g/dL	3.9 ± 0.4	3.9 ± 0.4	4.0 ± 0.3	3.5 ± 1.0	0.028
BMI, Kg/m ²	25.9 ± 4.6	25.9 ± 4.3	26.0 ± 5.2	26.3 ± 6.9	0.981

AVF: arteriovenous fistula; BMI: body mass index; CRP: C-reactive protein; CVC: central venous catheter; Kt/V: dialysis clearance of urea; IL-6: interleukin 6; MCH: mean cell hemoglobin; MCHC: mean cell hemoglobin concentration; MCV: mean cell volume; oxLDL: oxidized low-density lipoprotein; RDW: red cell distribution width; RPI: reticulocyte production index; s-TfR: soluble transferrin receptor; URR: urea clearance ratio by dialysis in the dialysis time/urea distribution volume.

Table 3. Clinical and sociodemographic data, dialysis efficiency, hematological values and iron metabolism, inflammatory and nutritional markers for the polymorphism c.-801G>A ($n = 1$) and extra block ($n = 2$).

Evaluated Variables	c.-801G>A ($n = 1$)	Extra block (Case 1)	Extra block (Case 2)
Clinical data and dialysis efficiency markers			
Age (years)	66.6	67.3	62.7
Gender	Female	Female	Male
Vascular access	AVF	AVF	CVC
Diabetic patient	Yes	Yes	No
Time on dialysis (years)	0.8	2.9	0.2
URR (%)	75	71.0	64.6
Kt/V	1.4	1.20	1.0
Creatinine (mg/dL)	6.9	9.4	3.2
Darbopoeitin ($\mu\text{g}/\text{kg}/\text{week}$)	0.5	0.5	0.7
Hematological data			
Hemoglobin (g/dL)	12.2	11.9	11.5
Hematocrit (%)	36.4	35.8	35.5
Erythrocytes ($\times 10^{12}/\text{L}$)	4.0	3.6	4.1
MCV (fL)	90.1	98.4	87.2
MCH (pg)	ND	32.7	28.3
MCHC (g/dL)	33.5	33.2	32.4
Reticulocytes ($\times 10^9/\text{L}$)	105.0	72.8	40.7
RPI	2.1	1.6	0.8
Leucocytes ($\times 10^9/\text{L}$)	4.0	5.0	6.6
Neutrophils ($\times 10^9/\text{L}$)	2.9	3.7	4.4
Lymphocytes ($\times 10^9/\text{L}$)	0.9	1.0	1.6
Neutrophil/lymphocyte ratio	3.4	3.9	2.7
Iron metabolism markers			
Ferro (mg/dL)	27	38	35
Transferrina (mg/dL)	143	180	191
Transferrin saturation (%)	13.4	14.9	13.0
Ferritin (ng/mL)	361.4	443.7	484.5
sTfR (nmol/L)	38.4	14.0	34.2
Inflammatory related variables			
CRP (mg/dL)	0.31	2.2	31.3
IL-6 (pg/mL)	1.8	1.8	4.4
OxLDL (U/L)	26.5	38.4	33.4
Elastase (ng/mL)	32.2	20.3	47.8
Elastase/neutrophil ratio	11.1	5.5	10.9
Nutritional markers			
Albumina, g/dL	3.4	4.1	3.8
BMI, Kg/m ²	24.1	30.1	32.8

AVF: arteriovenous fistula; BMI: body mass index; CRP: C-reactive protein; CVC: central venous catheter; *Kt/V*: dialysis clearance of urea; IL-6: interleukin 6; MCH: mean cell hemoglobin; MCHC: mean cell hemoglobin concentration; MCV: mean cell volume; oxLDL: oxidized low-density lipoprotein; RDW: red cell distribution width; RPI: reticulocyte production index; s-TfR: soluble transferrin receptor; URR: urea clearance ratio by dialysis in the dialysis time/urea distribution volume.