Supplementary Table S1. KDQOL-36 subscales.

Subscale items	Total sample (*n* = 12)	
	Clinical outcomes (*n* = 10)	Proteomics analysis (*n* = 12)
Symptom problem list	74.0 [66.1–88.5]	76.0 [60.9–90.6]
Effect of kidney disease	84.4 [54.7–94.5]	82.8 [64.8–93.0]
Burden of kidney disease	46.9 [37.5–82.8]	46.9 [37.5–85.9]
Work status	0.0 [0.0–50.0]	0.0 [0.0–50.0]
Cognitive function	100.0 [76.7–100.0]	96.7 [70.0–100.0]
Quality of social interaction	93.3 [80.0–100.0]	90.0 [75.0–100.0]
Sexual function	100.0 [75.0–100.0]	100.0 [75.0–100.0]
Sleep	51.3 [36.9–69.4]	51.3 [31.3–73.1]
Social support	83.3 [66.7–100.0]	83.3 [66.7–100.0]
Dialysis staff encouragement	100.0 [84.4–100.0]	100.0 [78.1–100.0]
Overall health	55.0 [30.0–75.0]	55.0 [30.0–85.0]
Patient satisfaction	83.3 [83.3–100.0]	83.3 [83.3–100.0]
Physical functionning	40.0 [32.5–75.0]	40.0 [27.5–75.0]
Role physical	100.0 [37.5–100.0]	87.5 [12.5–100.0]
Pain	62.5 [41.9–78.1]	62.5 [35.6–77.5]
General health	50.0 [33.8–67.5]	50.0 [38.1–72.5]
Emotional well being	78.0 [70.0–83.0]	78.0 [66.0–89.0]
Role emotional	78.0 [70.0–83.0]	66.7 [66.7–100.0]
Social function	81.3 [59.4–100.0]	81.3 [65.6–100.0]
Energy fatigue	47.5 [33.8–62.5]	47.5 [35.0–63.8]

Data are presented median [IQR]. KDQOL-36: Kidney Disease Quality of Life 36-item short form.

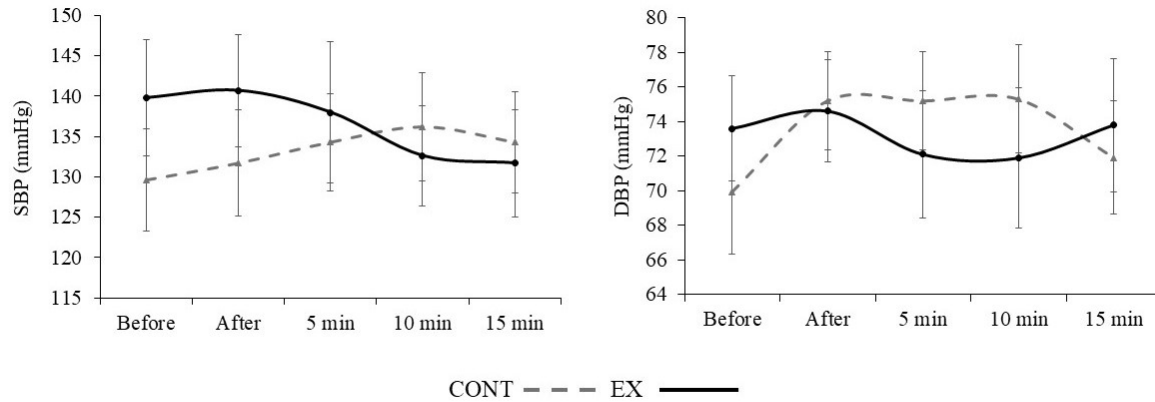**Supplementary Table S2.** Treatment-related symptoms after dialysis.

Symptoms	Condition (N = 10)		p-value
	Rest	Exercise	
Day of dialysis			
Fatigue (2 h after dialysis)	2.5 [0.7−7.1]	3.3 [1.1−6.7]	0.475
Desire to sleep (2 h after dialysis)	**5.5 [2.9−5.8]**	**3.3 [1.4−5.4]**	**0.025**
Mood (2 h after dialysis)	9.2 [8.5−9.5]	9.4 [8.3−9.7]	0.202
Muscle soreness (2 h after dialysis)	1.9 [0.6−4.0]	2.3 [0.7−4.9]	0.878
Day after dialysis			
Quality of sleep (10 h)	5.0 [2.4−8.4]	6.0 [4.2−8.4]	0.092
Fatigue (10 h)	1.3 [0.5−6.2]	2.1 [0.5−3.8]	0.482
Desire to sleep (10 h)	2.1 [0.5−5.0]	2.9 [0.4−4.3]	0.866
Mood (10 h)	9.2 [8.5−9.4]	9.0 [7.9−9.4]	0.674
Muscle soreness (10 h)	2.6 [0.6−5.1]	1.2 [0.4−3.5]	0.123
Fatigue (14 h)	3.2 [0.5−5.4]	2.4 [0.7−5.5]	0.374
Desire to sleep (14 h)	0.7 [0.4−3.3]	1.7 [0.8−5.8]	0.141
Mood (14 h)	8.8 [6.1−9.3]	8.9 [7.9−9.5]	0.313
Muscle soreness (14 h)	2.1 [0.7−4.3]	3.2 [0.4−4.4]	0.552
Fatigue (18 h)	4.7 [1.1−6.0]	2.3 [1.1−6.6]	0.798
Desire to sleep (18 h)	2.0 [0.4−6.9]	2.1 [1.3−3.7]	0.838
Mood (18 h)	9.0 [8.5−9.5]	8.9 [8.1−9.5]	0.721
Muscle soreness (18 h)	2.0 [0.6−4.3]	1.8 [0.5−3.8]	0.374
DSI	9.5 [7.0−24.3]	14.0 [8.0−26.0]	0.213

Data are presented median [IQR]; Bold value represents a significant change between rest and exercise condition; DSI = dialysis symptom index.
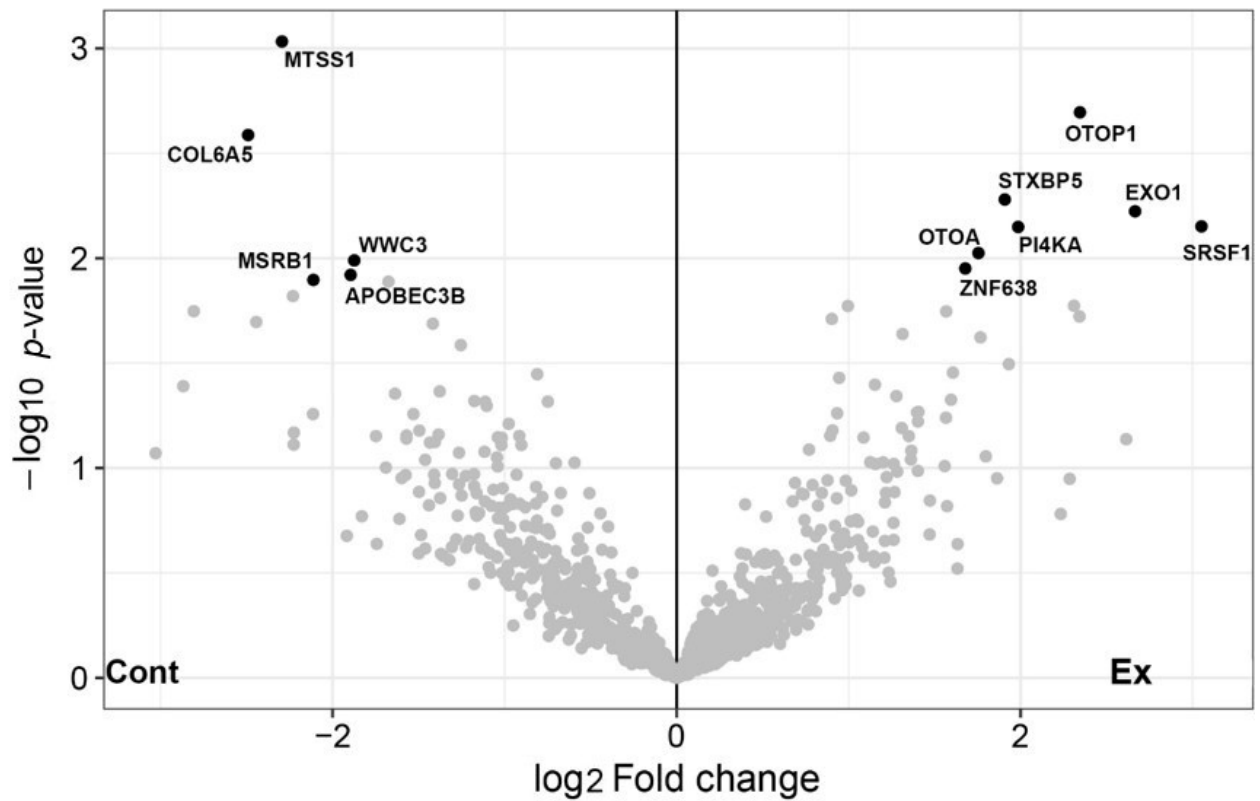
Supplementary Table S3. Biochemical profile after both experimental conditions.

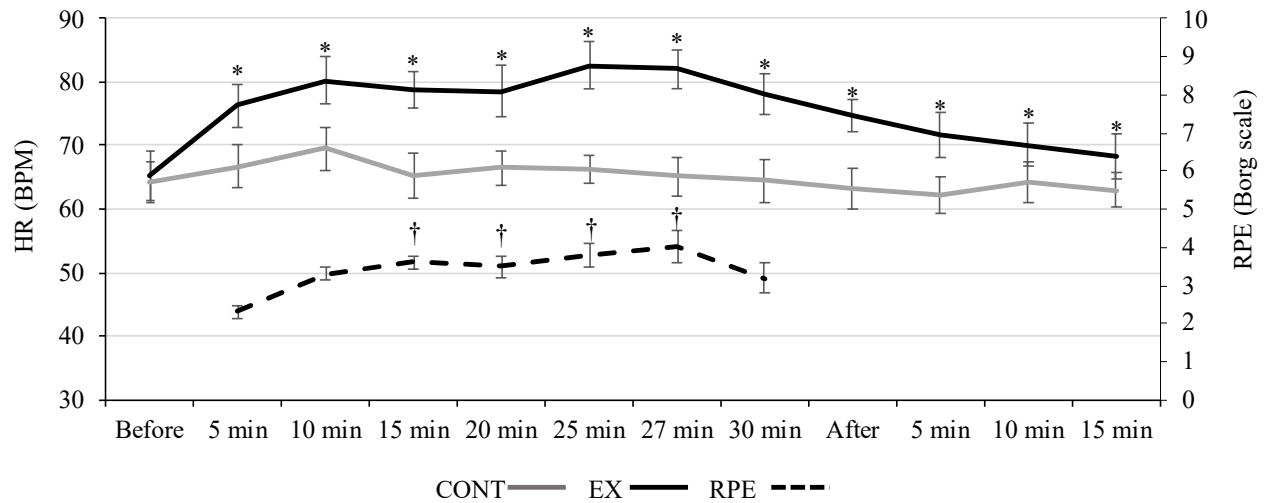| Biochemical parameters	Condition (N = 10)		Condition comparison p-value
	Control	Exercise	
Kt/V	1.4 [1.1−1.7]	1.4 [1.1−1.6]	0.868
Hemoglobin (g/L)	102 [97.8−106.0]	103.0 [97.5−110.0]	0.145
Phosphate (mmol/L)	0.70 [0.63−0.84]	0.71 [0.67−0.91]	0.125
Calcium (mmol/L)	2.1 [2.1−2.2]	2.2 [2.1−2.2]	0.374
Parathyroid hormone (pmol/L)	24.7 [18.6−45.5]	38.6 [21.2−58.1]	0.156
Albumin (g/L)	31.9 [30.4−35.8]	33.0 [31.0−36.5]	0.367

Data are presented median [IQR]. Kt/V: dialysis adequacy where K is the clearance of urea (L/min), t the duration of the dialysis treatment (min) and V the urea distribution volume in the body (L).

Supplementary Figure S1. Blood pressure before and after both the control and exercise condition. Data are presented mean ± SEM. SBP = systolic blood pressure; DBP = diastolic blood pressure; CONT = control condition; EX = exercise condition.

Supplementary Figure S2. Volcano plot of the log2 fold changes versus the −log10 *p*-values. Potentially interesting candidates are located on the top right (increased after exercise) and top left (decrease after exercise) quadrants.

Supplementary Figure S3. Heart rate and rate perceived exertion. Data are presented mean ± SEM; HR = heart rate; BPM = beat per minute; RPE = rate perceived exertion; CONT = control condition; EX = exercise condition. * Statistical difference between CONT and EX condition; † statistical difference for RPE compared to the 5 minutes time mark.