



## **Supplementary Material**

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- Table S1. Heart rate variability at baseline and after three months supplementation in patients without previous acute myocardial infarction.
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Table S1. Heart rate variability at baseline and after three months supplementation in patients without previous acute myocardial infarction.

Parameters	n-	3 PUFA (n = 27)		С	ontrol ( <i>n</i> = 38)		Difference in response <sup>1</sup>	
	Before	After	<i>p</i> -Value	Before	After	<i>p</i> -Value		<i>p</i> -Value
Time-domain HRV								
SDNN (ms)	$87.5 \pm 22.7$	$90.7 \pm 28.8$	0.33	$85.8 \pm 39.5$	$88.2 \pm 31.4$	0.35	0.8 (-7.3; 8.9)	0.84
SDANN (ms)	$79.2 \pm 20.4$	82.1 ± 26.6	0.42	$77.9 \pm 36.8$	$81.3 \pm 28.7$	0.17	-0.4 (-8.8; 8.0)	0.92
SDNNi (ms)	30.1 ± 13.0	$30.2 \pm 13.8$	0.88	29.2 ± 15.4	$28.3 \pm 14.2$	0.27	1.1 (-1.6; 3.8)	0.41
rMSSD (ms)	$14.5 \pm 6.9$	$14.0 \pm 6.8$	0.60	$14.9 \pm 9.1$	$13.5 \pm 7.0$	0.04	0.9 (-1.3; 3.2)	0.41
Triangular Index	$21.3 \pm 6.1$	$22.6 \pm 8.9$	0.22	23.6 ± 12.1	$23.5 \pm 9.4$	0.091	1.5.(-1.5; 4.4)	0.33
Mean RR (ms)	793.8 ± 116.6	803.6 ± 103.3	0.46	819.4 ± 118.1	810.6 ± 112.2	0.26	18.7 (-10.0; 47.3)	0.20
Mean heart rate (bpm)	77.3 ± 12.1	75.9 ± 9.6	0.28	74.7 ± 10.8	75.4 ± 10.3	0.36	-2.1 (-5.0; 0.7)	0.14
Frequency- domain HRV <sup>2</sup>								
LF (ms²)	$4.86 \pm 1.25$	$4.86 \pm 1.38$	0.99	$4.47 \pm 1.56$	$4.43 \pm 1.53$	0.54	0.05 (-0.19; 0.28)	0.70
HF (ms²)	$3.73 \pm 0.97$	$3.67 \pm 0.97$	0.66	3.76 ± 1.15	$3.59 \pm 1.19$	0.06	0.11 (-0.21; 0.42)	0.51
LF/HF ratio	1.14 ± 0.81	$1.19 \pm 0.82$	0.56	$0.75 \pm 0.97$	$0.85 \pm 0.86$	0.09	-0.05 (-0.25; 0.16)	0.64

Data are mean ± standard deviation or ¹absolute number and 95% confidence interval.

<sup>&</sup>lt;sup>2</sup>All frequency-domain indices are log-transformed due to skewed data.

PUFA, polyunsaturated fatty acids; HRV, heart rate variability; mean RR, the 24-hour mean value of RR-intervals; SDNN, the 24-hour standard deviation of normal intervals; SDANN, the standard deviation of the mean of RR-intervals in successive 5-minute segments; SDNNi, the mean of the standard deviation of all normal RR-intervals for all 5 minute segments; rMSSD, the square root of the mean of the sum of the squares of differences between adjacent intervals; LF, low frequency; HF, high frequency.





Table S2. Heart rate variability at baseline and after three months supplementation in patients on in-center dialysis.

Parameters	n-	3 PUFA (n = 32)		Control (n = 32)			Difference in response <sup>1</sup>	
	Before	After	<i>p</i> -Value	Before	After	<i>p</i> -Value		<i>p</i> -Value
Time-domain HRV								
SDNN (ms)	$84.3 \pm 23.7$	$87.9 \pm 26.7$	0.17	$83.5 \pm 40.3$	$86.8 \pm 34.2$	0.25	0.3 (-7.4; 8.0)	0.94
SDANN (ms)	77.4 ± 22.2	81.2 ± 26.2	0.17	$75.8 \pm 37.6$	$80.6 \pm 32.6$	0.10	-1.0 (-8.9; 6.8)	0.80
SDNNi (ms)	$26.2 \pm 9.1$	$26.7 \pm 9.9$	0.63	28.7 ± 15.6	$26.5 \pm 13.4$	0.06	2.6 (0.3; 4.9)	0.08
rMSSD (ms)	14.1 ± 6.5	$14.2 \pm 6.3$	0.91	15.0 ± 11.6	12.9 ± 10.5	0.01	2.2 (-0.29; 4.8)	0.08
Triangular Index	$19.9 \pm 4.7$	$21.8 \pm 6.6$	0.04	22.4 ±11.6	$23.4 \pm 9.8$	0.33	1.0 (-1.6; 3.6)	0.45
Mean RR (ms)	839.9 ± 112.1	860.2 ± 109.7	0.06	836.9 ± 126.0	820.8 ± 111.5	0.12	36.4 (7.4; 65.3)	0.01
Mean heart rate (bpm)	72.8 ± 20.3	$70.9 \pm 9.0$	0.054	73.4 ± 11.6	$74.4 \pm 9.9$	0.32	-2.9 (-5.7; 0.2)	0.04
Frequency- domain HRV <sup>2</sup>								
LF (ms²)	$4.35 \pm 1.22$	4.41 ± 1.21	0.51	$4.35 \pm 1.45$	$4.26 \pm 1.44$	0.30	0.16 (-0.10; 0.41)	0.23
HF (ms²)	$3.61 \pm 0.87$	$3.62 \pm 0.86$	0.95	3.64 ± 1.17	$3.42 \pm 1.16$	0.04	0.01 (-0.08; 0.53)	0.14
LF/HF ratio	$0.75 \pm 0.84$	$0.80 \pm 0.81$	0.53	$0.75 \pm 0.92$	$0.85 \pm 0.84$	0.15	-0.04 (-0.27; 0.18)	0.70

Data are mean ± standard deviation or <sup>1</sup>absolute number and 95% confidence interval.

<sup>&</sup>lt;sup>2</sup>All frequency-domain indices are log-transformed due to skewed data.

PUFA, polyunsaturated fatty acids; HRV, heart rate variability; mean RR, the 24-hour mean value of RR-intervals; SDNN, the 24-hour standard deviation of normal intervals; SDANN, the standard deviation of the mean of RR-intervals in successive 5-minute segments; SDNNi, the mean of the standard deviation of all normal RR-intervals for all 5 minute segments; rMSSD, the square root of the mean of the sum of the squares of differences between adjacent intervals; LF, low frequency; HF, high frequency.





**Table S3.** Heart rate variability at baseline and after three months supplementation in patients, who took at least 85% of the prescribed capsules (as treated analysis).

Parameters	n-3 PUFA (n = 34)			Control (n = 34)			Difference in response <sup>1</sup>	
	Before	After	<i>p</i> -Value	Before	After	<i>p</i> -Value		<i>p</i> -Value
Time-domain HRV								
SDNN (ms)	$83.8 \pm 24.6$	88.1 ± 25.9	0.08	$94.9 \pm 37.8$	$96.9 \pm 30.7$	0.49	2.3 (-5.3; 9.8)	0.55
SDANN (ms)	76.1 ± 22.0	80.3 ± 25.1	0.11	$85.7 \pm 35.4$	89.1 ± 29.0	0.26	0.8 (-7.0; 8.6)	0.84
SDNNi (ms)	28.2 ± 12.0	29.4 ± 11.9	0.23	$33.2 \pm 15.0$	$31.8 \pm 13.0$	0.17	2.6 (-0.2; 5.5)	0.07
rMSSD (ms)	$15.3 \pm 7.2$	$15.7 \pm 6.7$	0.67	$16.5 \pm 9.4$	$14.9 \pm 6.8$	0.05	2.0 (-0.47; 4.5)	0.11
Triangular Index	$20.5 \pm 5.7$	$22.7 \pm 7.0$	0.02	26.2 ± 11.7	$26.4 \pm 8.9$	0.82	1.9 (-0.9; 4.7)	0.17
Mean RR (ms)	816.7 ± 122.1	839.3 ± 119.1	0.01	849.1 ± 105.4	836.1 ± 97.8	0.22	35.6 (8.7; 62.6)	0.01
Mean heart rate (bpm)	75.2 ±11.9	72.9 ± 10.2	0.02	71.7 ± 8.6	$72.7 \pm 8.0$	0.30	-3.3 (-5.0; 0.1)	0.01
Frequency- domain HRV <sup>2</sup>								
LF (ms²)	$4.65 \pm 1.22$	4.74 ± 1.20	0.34	$4.89 \pm 1.19$	4.88 ± 1.11	0.85	0.1 (-0.13; 0.34)	0.39
HF (ms²)	$3.76 \pm 0.97$	$3.83 \pm 0.88$	0.57	$3.98 \pm 1.11$	$3.88 \pm 1.05$	0.26	0.16 (-0.12; 0.46)	0.25
LF/HF ratio	$0.89 \pm 0.88$	$0.92 \pm 0.82$	0.69	$0.94 \pm 0.81$	1.01 ± 0.72	0.25	-0.03 (-0.25; 0.18)	0.76

Data are mean ± standard deviation or <sup>1</sup>absolute number and 95% confidence interval.

PUFA, polyunsaturated fatty acids; HRV, heart rate variability; mean RR, the 24-hour mean value of RR-intervals; SDNN, the 24-hour standard deviation of normal intervals; SDANN, the standard deviation of the mean of RR-intervals in successive 5-minute segments; SDNNi, the mean of the standard deviation of all normal RR-intervals for all 5 minute segments; rMSSD, the square root of the mean of the sum of the squares of differences between adjacent intervals; LF, low frequency; HF, high frequency.

<sup>&</sup>lt;sup>2</sup>All frequency-domain indices are log-transformed due to skewed data.





**Table S4.** Fish intake before and after supplementation.

Parameter	n-3 PUFA (n = 42)			Control (n = 43)			Difference in response <sup>1</sup>		
	Before	After	<i>p</i> -Value	Before	After	<i>p</i> -Value		<i>p</i> -Value	
Fish score <sup>2</sup>	6.8 ± 2.6	6.8 ± 2.6	1.0	7.0 ± 2.4	6.7 ± 2.6	0.39	0.2 (-0.4; 0.9 )	0.52	

Data are mean ± standard deviation or <sup>1</sup>absolute number and 95% confidence interval.

<sup>&</sup>lt;sup>2</sup>Fish intake assessed by a questionnaire with two questions: 1. How often do you eat fish for lunch? and 2. How often do you eat fish for dinner? A score was given according to the following: never eating fish=1; eating fish once a month=2, eating fish 2-3 times a month=3′, eating fish once a week=4, eating fish 2-3 times a week=5 and eating fish every day=6. Hence, the total fish score for lunch and dinner could range from 2-12.