

**SUPPLEMENTARY DATA****Table 1 of supplementary data**

Comparison of lipoprotein profile between patients with ischemic and nonischemic heart failure

	Heart failure		P
	Ischemic	Nonischemic	
	n = 205	n = 224	
<b>Total cholesterol, mg/dL</b>	181.80 ± 32.13	207.62 ± 38.54	< .001
<b>Total triglycerides, mg/dL</b>	122.46 ± 44.31	135.56 ± 61.53	.011
<b>VLDL particle number, nmol/L</b>			
<i>Total</i>	48.83 [37.81-68.10]	53.54 [38.58-77.74]	.051
Large	1.39 [1.09-1.69]	1.39 [1.09-1.84]	.443
Medium	5.45 [4.10-7.10]	5.82 [4.22-8.47]	.001
Small	42.41 [32.52-59.15]	46.36 [33.31-68.00]	.062
<i>VLDL-C, mg/dL</i>	18.53 [13.69-24.44]	20.29 [15.12-28.89]	.001
<i>VLDL-TG, mg/dL</i>	67.34 [50.82-90.64]	71.24 [50.98-104.05]	.068
<i>VLDL-Z, nm</i>	42.17 ± 0.21	42.17 ± 0.19	.871
<b>LDL particle number, nmol/L</b>			
<i>Total</i>	1064 ± 233.4	1238 ± 285.3	< .001
Large	167.4 ± 32.2	191.0 ± 39.4	< .001
Medium	298.1 ± 104.3	378.1 ± 130.6	< .001
Small	598.4 ± 119.0	669.2 ± 144.2	< .001
<i>LDL-C, mg/dL</i>	101.55 ± 23.68	118.92 ± 28.86	< .001
<i>LDL-TG, mg/dL</i>	15.75 ± 4.60	18.76 ± 6.31	< .001
<i>LDL-Z, nm</i>	21.01 ± 0.23	21.07 ± 0.25	.005
<b>HDL particle number, µmol/L</b>			
<i>Total</i>	24.57 ± 5.25	26.69 ± 5.40	< .001
Large	0.28 [0.26-0.31]	0.30 [0.27-0.33]	.003
Medium	10.00 ± 1.80	10.44 ± 2.13	.023
Small	14.28 ± 4.85	15.94 ± 4.86	< .001
<i>HDL-C, mg/dL</i>	46.66 ± 9.85	50.32 ± 10.61	< .001
<i>HDL-TG, mg/dL</i>	16.30 [14.25-18.98]	17.29 [14.50-20.81]	.020
<i>HDL-Z, nm</i>	8.33 [8.26-8.41]	8.31 [8.25-8.40]	.042
<b>HDL-C/P ratio</b>	49.52 ± 5.89	49.01 ± 5.78	.361

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-C, cholesterol content; HDL, high density lipoprotein; HDL-C/P, HDL cholesterol per HDL particle ratio;

LDL, low-density lipoprotein; -TG, triglyceride content; VLDL, very low density lipoprotein; -Z, mean

normalized particle size.

The results are expressed as mean  $\pm$  standard deviation or median [25th-75th] percentiles.

**Table 2 of the supplementary data**

Comparison between cholesterol, triglycerides and lipoprotein subclasses between patients with heart failure and controls according to body mass index

		Heart failure	Controls	P
		n = 429	n = 428	
		BMI		
<b>Total cholesterol, mg/dL</b>	<b>&lt; 25</b>	200 ± 39.3	209.5 ± 29.8	.068
	<b>25 to 30</b>	191.9 ± 39.4	216.5 ± 32.5	< .001
	<b>≥ 30</b>	194.6 ± 32.6	216.9 ± 39.32	< .001
<b>Total triglycerides, mg/dL</b>	<b>&lt; 25</b>	107.8 [90.6-136.9]	88.5 [73.5-109.6]	< .001
	<b>25 to 30</b>	114.9 [90.9-151.6]	113.9 [90.3-140.3]	.337
	<b>≥ 30</b>	129.8 [103.3-157.6]	132.9 [105.6-165.9]	.167
<b>VLDL particle number, nmol/L</b>				
<b>Total</b>	<b>&lt; 25</b>	47.5 [34.6-65.2]	34.9 [27.3-43.4]	< .001
	<b>25 to 30</b>	50.8 [38.5-74.4]	49.4 [34.5-70.3]	.366
	<b>≥ 30</b>	61.0 [43.3-80.4]	63.6 [46.3-88.8]	.092
<b>Large</b>	<b>&lt; 25</b>	1.22 [1.01-1.62]	1.00 [0.81-1.31]	< .001
	<b>25 to 30</b>	1.38 [1.14-1.80]	1.37 [1.02-1.87]	.951
	<b>≥ 30</b>	1.55 [1.29-1.91]	1.70 [1.30-2.21]	.028
<b>Medium</b>	<b>&lt; 25</b>	5.28 [3.92-6.69]	3.58 [2.50-4.83]	< .001
	<b>25 to 30</b>	5.68 [4.19-7.56]	4.10 [2.98-5.60]	< .001
	<b>≥ 30</b>	6.15 [4.47-8.41]	4.91 [3.40-6.67]	.657
<b>Small</b>	<b>&lt; 25</b>	40.58 [30.09-57.15]	30.01 [23.68-38.05]	< .001
	<b>25 to 30</b>	44.22 [33.12-63.77]	42.65 [30.07-62.73]	.614
	<b>≥ 30</b>	53.23 [37.63-71.39]	56.03 [40.58-80.67]	.056
<b>VLDL-C, mg/dL</b>	<b>&lt; 25</b>	17.8 [13.4-23.7]	11.7 [7.8-17.1]	< .001
	<b>25 to 30</b>	18.9 [14.5-27.1]	17.2 [11.6-24.4]	.016
	<b>≥ 30</b>	21.2 [16.9-29.6]	22.0 [16.2-27.9]	.665
<b>VLDL-TG, mg/dL</b>	<b>&lt; 25</b>	[46.5-62.9-85.9]	45.8 [37.1-57.8]	< .001
	<b>25 to 30</b>	69.6 [53.0-96.9]	65.2 [46.2-90.0]	.170
	<b>≥ 30</b>	80.8 [58.4-108.9]	82.6 [61.6-111.1]	.177
<b>VLDL-Z, nm</b>	<b>&lt; 25</b>	42.19 ± 0.19	42.03 ± 0.30	< .001
	<b>25 to 30</b>	42.17 ± 0.21	41.90 ± 0.42	< .001
	<b>≥ 30</b>	42.15 ± 0.20	41.85 ± 0.46	< .001
<b>LDL particle number, nmol/L</b>				
<b>Total</b>	<b>&lt; 25</b>	1198 ± 297.5	1306 ± 229.2	.006
	<b>25 to 30</b>	1129 ± 284.3	1368 ± 269.4	< .001
	<b>≥ 30</b>	1143 ± 221.4	1353 ± 325.7	< .001
<b>Large</b>	<b>&lt; 25</b>	189.6 ± 41.3	183.3 ± 31.1	.246
	<b>25 to 30</b>	176.1 ± 37.6	184.3 ± 37.2	.033

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	<b>≥ 30</b>	173.0 ± 31.2	178.8 ± 46.8	.265
Medium	<b>&lt; 25</b>	373.1 ± 134.3	387.4 ± 120.7	.437
	<b>25 to 30</b>	326.5 ± 127.4	388.0 ± 136.1	< .001
	<b>≥ 30</b>	319.0 ± 98.4	357.8 ± 141.2	.016
Small	<b>&lt; 25</b>	635.4 ± 144.2	735.6 ± 115.4	< .001
	<b>25 to 30</b>	626.6 ± 142.3	795.9 ± 157.6	< .001
	<b>≥ 30</b>	651.5 ± 117.6	816.8 ± 216.6	< .001
<i>LDL-C, mg/dL</i>	<b>&lt; 25</b>	116.0 ± 30.2	128.7 ± 24.1	.002
	<b>25 to 30</b>	108.2 ± 28.5	131.8 ± 27.2	< .001
	<b>≥ 30</b>	107.8 ± 22.3	127.9 ± 31.7	< .001
<i>LDL-TG, mg/dL</i>	<b>&lt; 25</b>	18.3 ± 5.8	16.1 ± 4.5	.003
	<b>25 to 30</b>	16.7 ± 5.8	17.4 ± 5.0	.158
	<b>≥ 30</b>	17.1 ± 5.6	17.7 ± 5.5	.386
<i>LDL-Z, nm</i>	<b>&lt; 25</b>	21.13 ± 0.23	21.04 ± 0.28	.013
	<b>25 to 30</b>	21.03 ± 0.24	20.93 ± 0.37	.002
	<b>≥ 30</b>	20.95 ± 0.23	20.84 ± 0.44	.018
<b>HDL particle number, μmol/L</b>				
<i>Total</i>	<b>&lt; 25</b>	25.49 ± 5.26	28.81 ± 5.20	< .001
	<b>25 to 30</b>	25.48 ± 5.20	28.02 ± 5.08	< .001
	<b>≥ 30</b>	26.14 ± 5.87)	27.13 ± 4.16)	.120
Large	<b>&lt; 25</b>	0.30 [0.26-0.33]	0.27 [0.25-0.29]	< .001
	<b>25 to 30</b>	0.29 [0.26-0.32]	0.27 [0.25-0.30]	< .001
	<b>≥ 30</b>	0.29 [0.27-0.32]	0.27 [0.25-0.31]	< .001
Medium	<b>&lt; 25</b>	10.56 ± 2.03	9.61 ± 1.54	< .001
	<b>25 to 30</b>	10.10 ± 1.83	8.97 ± 1.54	< .001
	<b>≥ 30</b>	9.98 ± 2.13	8.71 ± 1.32	< .001
Small	<b>&lt; 25</b>	14.62 ± 4.77	18.94 ± 4.45	< .001
	<b>25 to 30</b>	15.09 ± 4.82	18.77 ± 4.32	< .001
	<b>≥ 30</b>	15.86 ± 5.15	18.14 ± 3.88	< .001
<i>HDL-C, mg/dL</i>	<b>&lt; 25</b>	49.3 ± 10.8	56.0 ± 12.2	< .001
	<b>25 to 30</b>	48.0 ± 9.9	52.2 ± 11.6	< .001
	<b>≥ 30</b>	48.3 ± 10.6	49.4 ± 8.9	.371
<i>HDL-TG, mg/dL</i>	<b>&lt; 25</b>	16.4 [14.4-19.6]	15.4 [13.3-19.8]	.128
	<b>25 to 30</b>	16.8 [14.3-19.1]	17.2 [14.8-20.0]	.565
	<b>≥ 30</b>	16.8 [14.5-20.4]	18.3 [14.9-21.3]	.555
<i>HDL-Z, nm</i>	<b>&lt; 25</b>	8.34 [8.27-8.43]	8.26 [8.22-8.31]	< .001
	<b>25 to 30</b>	8.33 [8.26-8.40]	8.24 [8.18-8.31]	< .001
	<b>≥ 30</b>	8.29 [8.24-8.38]	8.25 [8.18-8.31]	< .001
<i>HDL-C/P ratio</i>	<b>&lt; 25</b>	50.32 ± 6.32	50.01 ± 3.32	.680
	<b>25 to 30</b>	49.10 ± 5.81	47.92 ± 4.06	.020
	<b>≥ 30</b>	48.12 ± 5.25	47.02 ± 3.87	.058

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*failure versus matched controls*

-C, cholesterol content; BMI, body mass index; HDL, high density lipoprotein; HDL-C/P, HDL cholesterol per HDL

particle ratio; HF, heart failure; LDL, low-density lipoprotein; -TG, triglyceride content; VLDL, very low density

lipoprotein; -Z, mean normalized particle size.

The results are expressed as mean  $\pm$  standard deviation or median [25<sup>th</sup>-75<sup>th</sup>] percentiles.

Patient number per group: HF and BMI < 25: n = 139; HF and BMI 25- < 30: n = 185; HF and BMI  $\geq$  30:

104; no-HF and BMI < 25: n = 77; no-HF and BMI 25- < 30: n = 205; no-HF and BMI  $\geq$  30: n = 146.