

Table S5 The comparison of clinical characteristics between non-converters and converter in PCOS and control group

Baseline variables	Control			PCOS		
	Non-converters	Converters	P value	Non-converters	Converters	P value
Number	108	11		95	25	
Age (years)	42.6 ± 7.0	44.2 ± 7.0	0.596	29.8 ± 6.4	30.8 ± 6.3	0.423
BMI (kg/m²)	22.8 ± 3.5	25.6 ± 3.9	0.021	24.7 ± 5.6	28.8 ± 5.3	0.001
waist (cm)	74.6 ± 8.1	80.6 ± 9.0	0.024	79.3 ± 11.9	90.5 ± 12.1	<0.001
Waist-to-hip ratio	0.8 ± 0.1	0.8 ± 0.1	0.123	0.8 ± 0.1	0.9 ± 0.1	0.001
SBP (mmHg)	111 ± 15	115 ± 15	0.994	111 ± 15	112 ± 16	0.992
DBP (mmHg)	71 ± 10	72 ± 10	0.965	71 ± 10	73 ± 10	0.977
Total Cholesterol (mmol/L)	5.1 ± 1.0	5.1 ± 2.1	0.290	4.7 ± 0.8	5.1 ± 1.6	0.071
Triglyceride (mmol/L)	0.8 (0.6-1.1)	1.0 (0.6-1.4)	0.348	0.9 (0.6-1.4)	1.3 (0.9-2.0)	0.494
HDL-C (mmol/L)	1.7 ± 0.5	1.4 ± 0.6	0.051	1.7 ± 0.6	1.4 ± 0.5	0.571
LDL-C (mmol/L)	2.9 ± 1.0	3.2 ± 1.4	0.790	2.5 ± 0.7	3.0 ± 1.3	0.013
Glu-fast (mmol/L)	4.8 ± 0.5	5.5 ± 0.6	<0.001	4.8 ± 0.5	5.4 ± 0.5	<0.001
Glu-2h (mmol/L)	6.2 ± 1.8	7.8 ± 1.8	0.006	6.5 ± 1.6	7.7 ± 1.6	0.008
Insulin (μU/ml)	7.4 (4.8-10.9)	8.7 (7.9-13.0)	0.051	8.3 (4.7-16.2)	24.2 (12.1-33.9)	<0.001
HOMA-IR	1.6 (1.0-2.4)	2.3 (2.0-3.6)	0.001	1.8 (1.1-3.6)	5.5 (2.7-8.3)	<0.001
HOMA-β	129 (79-204)	97 (76-173)	0.630	128 (81-235)	260 (175-329)	0.003
eGFR (mL/min/1.73m²)	96.2 ± 17.0	87.0 ± 6.1	0.907	110.2 ± 12.1	115.5 ± 16.9	0.384
AMH (pmol/l)	1.9 (0.1-8.0)	0.5 (0.0-3.5)	0.382	30.0 (20.8-51.8)	26.6 (14.8-39.8)	0.215
LH (IU/L)				9.0 ± 7.1	8.2 ± 4.8	0.844
FSH (IU/L)				5.6 ± 2.2	5.6 ± 1.7	0.979
LH/FSH				1.6 ± 1.2	1.5 ± 0.8	0.787
Testosterone (nmol/L)				1.6 (1.2-2.2)	1.8 (1.1-2.6)	0.417
Estrogen (pmol/L)				141 (113-237)	147 (127-186)	0.992
Use of metformin	0/108	0/11	N/A	7/95 (7.4%)	2/25 (8.0%)	0.586
Use of anti-hypertension drugs	0/108	0/11	N/A	3/95 (3.2%)	1/25 (4.0%)	0.835
Use of lipid-lowering drug	0/108	0/11	N/A	0/95	3/25(13.3%)	N/A
IGR	13/108 (12.0%)	5/11 (45.5%)	0.003	18/95 (18.9%)	14/25 (56.0%)	<0.001

HT	9/108 (8.3%)	1/11 (9.1%)	0.931	12/95 (12.6%)	7/25 (28.0%)	0.061
Dyslipidemia	69/108 (63.9%)	9/11 (81.8%)	0.233	42/95 (44.2%)	15/24 (62.5%)	0.109
FGF-19 (pg/ml)	122 (57-177)	189 (77-374)	0.007	191 (108-335)	210 (132-274)	0.767
FGF-21 (pg/ml)	79 (28-150)	232 (142-315)	<0.001	139 (59-256)	155 (57-261)	0.928
Lipocalin-2 (ng/ml)	96.3 (62.9-166.8)	78.9 (63.1-153.8)	0.487	52.0 (33.4-65.9)	70.6 (42.3-99.2)	0.028

Data are expressed as mean \pm SD, median (Q1-Q3) or proportion in %; Ln transformation was used in triglyceride, insulin, HOMA-IR, HOMA- β , AMH, FGF-19, FGF-21 and Lipocalin-2.

Abbreviation: BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; Glu-fast, fasting glucose; Glu-2h, two-hour glucose; HOMA-IR, homeostasis model assessment of insulin resistance; HOMA- β , homeostasis model assessment of beta cell function; eGFR, estimated glomerular filtration rate; AMH, anti-Mullerian hormone; LH, luteinizing hormone; FSH, follicle-stimulating hormone; IGR, impaired glucose regulation; HT, hypertension