

Table S1. Differences in dietary patterns between the PCOS and control group of women.

Type of food and frequency of intake (x times/week \pm SD)	PCOS (n=35)	Control (n=35)	p-value
Mineral supplements	3.67 \pm 0.50 ^a	3.24 \pm 0.83 ^d	0.175
Vitamin supplements	3.75 \pm 0.62 ^b	2.81 \pm 1.05 ^c	0.005
Other types of dietary supplements	3.87 \pm 0.34 ^c	2.94 \pm 1.11 ^e	0.001
Bread	3.86 \pm 2.05	4.30 \pm 2.26	0.282
Cereals	2.80 \pm 2.22	2.64 \pm 2.24	0.726
Dairy products	4.63 \pm 2.40	5.23 \pm 2.59	0.582
Potatoes	1.51 \pm 0.92	1.76 \pm 0.99	0.259
Rice	1.46 \pm 1.09	1.60 \pm 1.24	0.639
Pasta dishes	1.60 \pm 0.95	2.13 \pm 1.01	0.026
Beef	0.86 \pm 0.73	0.97 \pm 0.82	0.591
Pork	0.57 \pm 0.66	0.66 \pm 0.91*	0.995
Chicken	2.57 \pm 2.00	1.93 \pm 1.45	0.249
Processed meat	1.37 \pm 1.37	1.34 \pm 1.54	0.675
Fresh fish	0.89 \pm 0.83	0.64 \pm 0.56	0.219
Canned fish	0.83 \pm 1.07	0.79 \pm 0.89	0.945
Seafood	0.14 \pm 0.36	0.19 \pm 0.34	0.234
Fresh vegetables	4.26 \pm 2.15	4.11 \pm 2.26	0.695
Boiled vegetables	3.49 \pm 2.39	3.54 \pm 1.91	0.840
Pickled vegetables	1.14 \pm 1.40	1.55 \pm 1.59	0.241
Fresh fruit	5.66 \pm 1.73	4.59 \pm 2.29	0.017
Cooked fruits	0.31 \pm 0.53	0.26 \pm 0.59	0.745
Processed fruits	1.14 \pm 1.31	1.17 \pm 1.47	0.956
Processed vegetables	0.66 \pm 1.03	0.60 \pm 0.76	0.823
Nuts	2.46 \pm 2.19	1.86 \pm 1.66	0.301
Farinaceous food	0.97 \pm 0.82	1.30 \pm 1.35	0.406
Desserts	1.83 \pm 1.58	1.89 \pm 1.46	0.828
Tap water	6.80 \pm 1.18	6.54 \pm 1.56	0.321
Mineral water (sparkling)	0.77 \pm 1.50	1.13 \pm 1.53	0.305
Still mineral water	0.60 \pm 1.33	1.24 \pm 2.05	0.090
Sweet carbonated drinks	0.74 \pm 1.58	0.71 \pm 1.01	0.223
Fruit juice	1.37 \pm 2.00	1.23 \pm 1.18*	0.387
Fruit tea	1.97 \pm 2.07	2.36 \pm 2.12	0.358
Black tea	1.91 \pm 2.48	0.82 \pm 1.44*	0.071

Legend: PCOS=polycystic ovary syndrome; SD=standard deviation. Mann-Whitney U test, $P < 0.05$; ^a n=9; ^b n=12; ^c n=16; ^d n=17; ^e n=18; *n=34. Mann-Whitney U test, statistical significance $p < 0.05$.

Table S2. Differences in anthropometric, ultrasonographic, and laboratory characteristics between the PCOS and control group of women (mean \pm standard deviation).

	PCOS (n=35)	Control (n=35)	p-value
Anthropometric characteristics			
WC (cm)	15.3 \pm 1.0 *	14.7 \pm 0.79**	0.027
BMI (kg/m ²)	23.1 \pm 2.79	21.3 \pm 1.83	0.004
Menstrual cycle length (days)	45.3 \pm 28.4	28.2 \pm 1.56	< 0.001
Ultrasonographic characteristics			
Endometrium thickness (mm)	5.57 \pm 2.37	7.60 \pm 2.96	0.004
AFC (average)	24.5 \pm 10.2	10.1 \pm 3.91	< 0.001
Average OV (cm ³)	10.1 \pm 4.58	5.33 \pm 1.70	< 0.001
Laboratory characteristics			
TSH (mIU/l)	2.34 \pm 0.82	2.43 \pm 0.89	0.972
FSH (IU/l)	5.79 \pm 2.07	7.58 \pm 2.42	0.007
LH (IU/l)	7.37 \pm 5.20	6.37 \pm 2.71	0.801
PRL (μ g/l)	11.9 \pm 5.98	13.6 \pm 5.84	0.182
17 β -estradiol (pmol/l)	243 \pm 308	200 \pm 93	0.518
Progesterone (nmol/l)	6.01 \pm 12.1	1.84 \pm 0.87	0.018
DHEAS (μ mol/l)	6.81 \pm 3.09*	6.15 \pm 2.94	0.358
SHBG (nmol/l)	64.0 \pm 30.4	78.6 \pm 47.2	0.063

Total testosterone (nmol/l)	1.31 ± 0.53	1.02 ± 0.29	0.006
FAI (%)	2.45 ± 1.37	1.50 ± 0.62	<0.001
Androstenedione (nmol/l)	14.7 ± 6.50	10.3 ± 3.79	0.002
Serum creatinine (μmol/l)	65.8 ± 9.56	67.7 ± 9.02	0.466
oGF/1.73m ² (ml/min)	89.1 ± 2.65	88.9 ± 4.09	0.576
AST (μkat/l)	0.39 ± 0.09	0.37 ± 0.06	0.768
ALT (μkat/l)	0.33 ± 0.15	0.32 ± 0.11	0.655
γ-GT (μkat/l)	0.25 ± 0.08	0.25 ± 0.10	0.364
Cholesterol (mmol/l)	4.49 ± 0.66	4.45 ± 0.85	0.617
HDL (mmol/l)	1.47 ± 0.31	1.43 ± 0.25	0.686
LDL (mmol/l)	2.82 ± 0.66	2.82 ± 0.81	0.629
Triglycerides (mmol/l)	0.73 ± 0.38	0.72 ± 0.27	0.558
Leukocyte count (10 ⁹ /l)	6.00 ± 1.34	5.45 ± 1.16	0.048
Red cell count (10 ¹² /l)	4.47 ± 0.30	4.41 ± 0.29	0.814
Hemoglobin (g/l)	133 ± 8.70	130 ± 9.65	0.151
Hematocrit	0.40 ± 0.03	0.39 ± 0.02	0.466
Mean cell volume (fl)	89.5 ± 3.31	89.1 ± 4.11	0.879
Mean corpuscular hemoglobin (pg)	29.9 ± 1.28	29.5 ± 1.63	0.417
MCHC (g/l)	334 ± 9.79	331 ± 9.54	0.204
RDW (%)	12.4 ± 0.55	12.8 ± 1.17	0.094
Platelet concentration (10 ⁹ /l)	267 ± 54.4	251 ± 41	0.153
Mean platelet volume (fl)	10.5 ± 0.70	10.5 ± 0.80	0.939
U-SG	1.02 ± 0.00	1.02 ± 0.01	0.053
U-pH	5.94 ± 0.64	5.71 ± 0.47	0.131
U-prot.	0.17 ± 0.51	0.23 ± 0.65	0.724
U-ket.	0.20 ± 0.41	0.06 ± 0.24	0.076
U-urobil.	0.23 ± 0.43	0.37 ± 0.49	0.195
U-bilirub.	0.06 ± 0.24	0.03 ± 0.17	0.558
U-Hb	0.89 ± 1.18	1.40 ± 1.33	0.095
U-Lkci	0.49 ± 0.70	0.51 ± 0.78	0.929
U-IgG/creat. (g/mol)	0.22 ± 0.73	0.56 ± 2.31	0.335
U-alb./creat. (g/mol)	1.31 ± 2.99	2.63 ± 8.52	0.139
U-alpha-1-microgl./creat. (g/mol)	0.05 ± 0.14	0.11 ± 0.22	0.186
U-IgG/alb	0.10 ± 0.24	0.18 ± 0.53	0.357
U-creat. (mmol/l)	12.6 ± 5.41	15.0 ± 6.95	0.092
25-(OH)-vit.D (nmol/l)	70.4 ± 28.4*	60.6 ± 23.7	0.103

Legend: AFC–antral follicle count; Alb–albumin; alpha-1-microgl.–alpha-1-microglobulin; ALT–alanine aminotransferase; AST–aspartate aminotransferase; BMI–Body Mass Index; Creat–creatinine; DHEAS–dehydroepiandrosterone sulfate; FAI–Free Androgen Index; FSH–follicle-stimulating hormone; oGF–glomerular filtration rate; GGT–gamma-glutamyltransferase; HDL–high-density lipoprotein; IgG–immunoglobulin G; LDL–low-density lipoprotein; LH–luteinizing hormone; MCHC– mean corpuscular hemoglobin concentration; OV–ovarian volume; PCOS–polycystic ovary syndrome; PRL–prolactin; RDW–red blood cell distribution width; S–serum; SHBG–sex hormone-binding globulin; TSH– thyroid-stimulating hormone; U-bilirub.– urinary bilirubin; U-creat.–urinary creatinine; U-Hb–hemoglobin in urine; U-ket.–ketone bodies in urine; U-pH–urine pH; U-prot.–urinary proteins; U-SG–urine specific gravity; U-urobil.– urinary urobilinogen; WC–wrist circumference; 25(OH)-vit.D– 25-hydroxyvitamin D3. Mann–Whitney U test, P < 0.05; *n = 34, **n = 30.

Table S3. Zn/Cu ratios in urine, whole blood and serum in PCOS group (n=35) and control group (n=35) of women.

Zn/Cu ratio		GM (min–max)	p-value
Zn/Cu-SG	PCOS group	33.5 (7.83–92.6)	0.541
	Control group	37.9 (10.7–125)	
Zn/Cu-WB	PCOS group	5.40 (3.88–8.28)	0.752
	Control group	5.37 (3.05–6.89)	
Zn/Cu-S	PCOS group	0.90 (0.58–1.54)	0.704
	Control group	0.93 (0.71–1.74)	

Legend: Cu–copper; GM–geometric mean; PCOS–polycystic ovary syndrome; S–serum; SG–specific gravity; WB–whole blood; Zn–zinc. Mann–Whitney U test, statistical significance p < 0.05.