

Supplemental Table 1: changes of steroid hormones, sex hormone binding globulin, gonadotropins, and cardiovascular risk factors depending on weight changes in 20 girls without PCOS

Variable	Weight loss; N=10 Age at baseline 14.6 ±0.8 years		p-value <sup>1</sup>	Non weight loss; N=10 Age at baseline 14.6 ±1.2 years		p-value <sup>1</sup>	p value <sup>2</sup>
	Baseline	One year later		baseline	One year later		
BMI [kg/m <sup>2</sup> ]	30.8 ±2.2	25.6 ±1.6	<0.001	30.9 ±3.3	32.6 ±3.4	<0.001	0.131
BMI-SDS	2.4 ±0.4	1.6 ±0.3	<0.001	2.3 ±0.5	2.5 ±0.5	0.004	0.290
Waist circumference [cm]	101 ±8	98 ±7	<0.001	105 ±12	110 ±11	<0.001	0.446
Triceps skinfold [cm]	29 ±5	23 ±3	<0.001	32 ±6	34 ±6	0.468	0.283
Subscapularis skinfold [cm]	28 ±6	21 ±3	<0.001	31 ±8	34 ±6	0.144	0.581
Body fat* [%]	41 ±5	32 ±5	<0.001	43 ±9	46 ±6	0.185	0.468
Triglycerides [mg/dl]	92 ±61	83 ±34	0.168	103 ±45	104 ±38	0.805	0.969
HDL-cholesterol [mg/dl]	50 (IQR 44-60)	62 (43-73)	0.049	55 (IQR 42-58)	53 (IQR 38-67)	0.611	0.939
LDL-cholesterol [mg/dl]	82 ±42	85 ±58	0.449	107 ±28	79 ±44	0.084	0.130
Fasting glucose [mg/dl]	91 ±8	88 ±7	0.226	88 ±8	89 ±8	0.231	0.426
Insulin [mU/l]	19 (IQR 11-25)	15 (IQR 8-16)	0.011	17 (IQR 7-21)	15 (IQR 6-22)	0.678	0.325
HOMA	4.0 (IQR 2.2-6.0)	3.1 (IQR 1.8-3.8)	0.014	3.6 (IQR 1.4-5.2)	3.5 (IQR 0.3-5.1)	0.575	0.290
Systolic blood pressure [mmHg]	116 ±7	111 ±9	0.147	119 ±6	122 ±10	0.234	0.356
Diastolic blood pressure [mmHg]	65 ±9	61 ±10	0.049	69 ±9	68 ±8	0.306	0.466
LH [mU/ml]	2.8 (IQR 2.2-3.6)	3.5 (IQR 1.9-4.3)	0.333	3.6 (IQR 2.8-4.9)	3.9 (IQR 2.3-5.0)	0.640	0.140
FSH [mU/ml]	5.0 (IQR 3.2-5.4)	4.3 (IQR 3.2-5.8)	0.635	5.0 (IQR 4.0-6.7)	4.3 (IQR 1.0-8.6)	0.766	0.650
LH/FSH	0.7 (IQR 0.5-0.8)	0.7 (IQR 0.5-1.0)	0.646	0.7 (IQR 0.6-1.3)	0.9 (0.5-1.7)	0.930	0.406
SHBG [nmol/l]	26 (IQR 15-33)	37 (IQR 27-49)	0.012	22 (IQR 14-136)	26 (14-40)	0.400	0.880
17 Hydroxpregeneolone [nmol/l]	4.8 (IQR 2.2-7.1)	4.6 (IQR 2.1-6.2)	0.539	4.2 (IQR 1.8-5.1)	4.6 (IQR 1.3-5.9)	0.575	0.690
Progesterone [nmol/l]	1.1 (IQR 0.7-1.4)	1.1 (IQR 0.7-2.7)	0.762	1.6 (IQR 1.2-2.7)	1.2 (IQR 0.7-4.7)	0.226	0.490
17 Hydroxyprogesterone [nmol/l]	1.1 (IQR 0.6-1.3)	1.1 (IQR 0.5-2.3)	0.400	1.0 (IQR 0.6-1.5)	0.8 (IQR 0.4-2.5)	0.622	0.880
DHEA-S [nmol/l]	3968 ±1799	3479 ±1854	0.006	2991 ±1018	2819 ±1261	0.451	0.151
Androstenedione [nmol/l]	3.0 ±0.9	2.8 ±1.1	0.257	2.9 ±0.9	2.9 ±1.0	0.878	0.751
Testosterone [nmol/l]	0.5 (IQR 0.3-0.9)	0.4 (IQR 0.2-0.7)	0.093	0.5 (IQR 0.1-0.6)	0.4 (IQR 0.2-0.6)	0.399	0.820
AI*	1.9 (IQR 0.8-4.9)	1.1 (IQR 0.3-2.0)	0.096	2.0 (IQR 0.4-3.2)	1.9 (IQR 0.9-2.3)	0.575	0.112
E1 [nmol/l]	0.08 (IQR 0.02-0.10)	0.04 (IQR 0.01-0.05)	0.613	0.07 (IQR 0.01-0.16)	0.08 (IQR 0.01-0.14)	0.279	0.364
E2 [nmol/l]	0.17 (IQR 0.10-0.21)	0.15 (IQR 0.07-0.24)	0.866	0.15 (IQR 0.05-0.30)	0.17 (IQR 0.09-0.27)	0.900	0.821
Deoxycorticosterone [nmol/l]	0.01 (IQR 0.01-0.07)	0.01 (IQR 0.01-0.13)	0.685	0.01 (IQR 0.01-0.03)	0.01 (IQR 0.01-0.08)	0.398	0.864
11 Desoxycortisol [nmol/l]	0.5 (IQR 0.4-0.9)	0.5 (IQR 0.3-1.0)	0.879	0.5 (IQR 0.4-1.0)	0.4 (IQR 0.2-0.7)	0.405	0.903
21 Desoxycortisol [nmol/l]	0.5 ±0.4	0.6 ±0.4	0.100	0.5 ±0.3	0.5 ±0.3	0.917	0.530
Corticosterone [nmol/l]	7.3 (IQR 5.2-13.7)	3.7 (IQR 2.1-8.3)	0.043	5.4 (IQR 3.1-8.7)	4.5 (IQR 1.3-9.3)	0.507	0.198
Cortisol [nmol/l]	257 (IQR 187-358)	209 (IQR 155-246)	0.020	238 (IQR 158-285)	201 (140-307)	0.396	0.290
Cortison [nmol/l]	57 ±8	59 ±11	0.635	56 ±13	55 ±11	0.658	0.325

Data as mean and standard deviation or median and interquartile range, p-values derived from paired and unpaired t-test as well as Mann Whitney U test and Wilcoxon test; 1: p-value of change within group, 2: p value of baseline comparison of girls with and without weight loss; \*: based on skinfold thickness