

Statistical analysis

Title of the study	The Effect of GLP-1 Agonists Versus OCs on Reproductive Disorders and Cardiovascular Risks in Overweight PCOS
NTC Number	NCT03151005
Statistical method	Statistical analyses were performed using SPSS 23.0 and GraphPad Prism 8. For normally distributed continuous variables of clinical parameters, variables are described as the mean \pm standard deviation (SD), a paired t-test was used to compare pretreatment and posttreatment values of continuous variables in each of the treatment groups, and between-group differences were compared by an independent sample t-test. For nonnormally distributed continuous variables, the nonparametric Wilcoxon signed-rank test for related samples was used to compare pretreatment and posttreatment values in each of the treatment groups. The chi-square test was used for counting data. To compare the changes in clinical parameters between different treatment groups, the nonparametric Mann-Whitney test was used. Proteomic data analysis was described by proteomic data acquisition and analysis. Protein levels are described as the mean \pm standard error of the mean (SEM), and a paired t-test was used to compare plasma protein levels measured by ELISA. P-values <0.05 were considered statistically significant.
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Table 1-Baseline and posttreatment characteristics of cliniccal parameters after 12-week of treatment.

Characteristics	CPA/EE+Met(n=30)			GLP-1 RA+Met(n=30)		
	Baseline	Posttreatment	Pvalue	Baseline	Posttreatment	Pvalue
Biometric features						
Weight(kg)						
BMI (kg/m²)						
Waist(cm)						
WHR						
SBP(mm/Hg)						
DBP(mm/Hg)						
Reproductive function						
Dominant follicle,n(%)						
Regular menstruation, n(%)						
Amenorrhoea, n(%)*						
Oligomenorrhoea,n(%)+						
Polycystic ovaries according t						
o Rotterdam criteria, n(%)						
T(nmol/L)						
LH(mIU/ml)						
FSH(mIU/ml)						
LH/FSH						
DHEA-S(ug/dL)						
SHBG (nmol/L)						
FAI						
E2(pg/ml)						
P(ng/ml)						
PRL(ng/ml)						
Biochemical profile of glucose metabolism						
HbA1c(%)						
HbA1c(mmol/mol)						
FBG(mmol/L)						
AUCI						
FINS(uU/ml)						
HOMA-IR						
Biochemical profile of lipid metabolism						
TG(mmol/L)						
TC(mmol/L)						

Data are mean±SD orn(%). BMI, body mass index; WHR, waist-to-hip ratio; SBP, systolic blood pressure; DBP, diastolic blood press ure; T, testosterone; LH, luteinizing hormone; FSH, follicle- stimulating hormone; DHEA-S, dehydroepiandrosterone; SHBG, sex hormone-binding globulin; FAI, free androgen index; E2, estradiol; P, progesterone; PRL, prolactin. HbA1c, hemoglobin A1c; FBG, fasting blood glucose; FINS, fasting insulin; AUCI, area under curve of insulin; HOMA- IR, homoeostasis model assessment of insulin resistance; T G, triglycerides; TC, total cholesterol

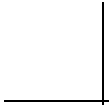


Table 2-Characteristics change after treatment in this study.

Characteristics	CPA/EE +Met (n=30)	GLP-1 RA +Met (n=30)	t/z	Pvalue
Biometric features				
△Weight (kg)				
△BMI (kg/m²)				
△Waist (cm)				
△WHR				
△SBP (mm/Hg)				
△DBP (mm/Hg)				
Sex hormones and related indicators				
△T (nmol/L)				
△LH (mIU/ml)				
AFSH (mIU/ml)				
ALH/FSH				
△DHEA-S (ug/dL)				
△SHBG (nmol/L)				
△FAI				
△E2 (pg/ml)				
△P (ng/ml)				
△PRL (ng/ml)				
Biochemical profile of lipid metabolism				
△TG (mmol/L)				
△TC (mmol/L)				