



PCOS INTERVENTION: ON THE CONTINUOUS CLINICAL CHALLENGE

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PCOS intervention: on the continuous clinical challenge

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Context: Polycystic ovary syndrome (PCOS) is a complex and heterogeneous disease that involves that involves reproductive and metabolic elements, The Rotterdam PCOS criteria are not valid for CVD prediction and there should probably be two names for the PCOS phenotypes: one for those with primarily reproductive consequences, and one those with important metabolic consequences. These comprise a range of disorders, such as dyslipidemia, hypertension, insulin resistance (IR), compensatory hyperinsulinemia, gestational, and type 2 diabetes, all associated to increased risk of cardiovascular morbidity.

Objective: A specific phenotyping based on body a) fat mass, b) insulin sensitivity and c) refined measurement of follicular morphology translates well to the individual proinflammatory/thrombogenic potential i.e thrombophilia in PCOS women. Glucagon-like peptide-1 (GLP-1) analogues facilitate weight loss and ameliorate metabolic dysfunction in overweight women with PCOS, but their effect on ovarian dysfunction is scarcely reported.

Interventions: In a double-blind, randomized trial, we allocated women with PCOS to intervention with the GLP-1 analogue (liraglutide) or placebo. The metabolic disorders and increased BMI associated with PCOS frequently brings up the debate regarding risks versus benefits of (Combined Oral Contraceptives) COCs

Results: Liraglutide caused weight loss and bleeding pattern improved. Also SHBG increased and free testosterone decreased. HbA1C, fasting glucose, and leptin were reduced. As with other intervention possibilities the biological effects of COCs will depend on the individual PCOS phenotype and type of COC administered. The literature still does not suggest one specific COC formulation over another. The lack of large-scale studies evaluating the risks with varying doses of ethinyl estradiol, types of progestins, and presence of confounding factors such as obesity and smoking is a significant limitation in these considerations.

Conclusions: Promising clinical results exist for beneficial use of GLP-1 analogues COCs as intervention

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add back, in addition to life style educations efforts.