

## **Polycystic Ovarian Syndrome Conference**

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## Novel strategies in the management of polycystic ovary syndrome

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PCOS is a common endocrinopathy affecting reproductive-aged women. PCOS has been recognized as a syndrome combining reproductive and metabolic abnormalities with lifelong health implications. Cardio-metabolic alterations require regular screening and effective and targeted lifestyle advice to lose weight as well as to prevent weight gain. Pharmacological therapy includes insulinsensitizer drugs and agents that act directly on metabolic comorbidities, such as statins and anti-obesity drugs. Bariatric surgery may be an option for severely obese women with PCOS regarding reproductive aspects, ovulation induction with anti-estrogens such as clomiphene citrate or letrozole is the first-line medical treatment. Exogenous gonadotropins and *in vitro* fertilization are recommended as second line treatment for anovulatory infertility. Laparoscopic ovarian diathermy may be used in special cases and metformin is no longer recommended for ovulation induction. Combined oral contraceptives (OCs) are the first-line treatment for the management of menstrual irregularities in women not seeking pregnancy, also providing endometrial protection and contraception. Progestin-only pills or cyclical progestins are recommended for those with contraindications to OCs. Metformin is also considered a second-line choice for improving menstrual cycles in women presenting insulin-resistance and dysglicemia. Regarding insulinsensitizing drugs versus combined OCs in PCOS patients, it has been reported that metformin is more effective than OCs in reducing fasting insulin and triglycerides and advanced glycated end products but there is insufficient evidence on their effects on hyperandrogenemic manifestations. Hirsutism requires cosmetic procedures and medical treatment with OCs. In conclusion, strategies regarding the management of PCOS encompass a tailored approach to individual needs of each patient.

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## Inositol and FSH: A new frontier for the androgenetic alopecia treatment in PCOS

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**Context:** Many papers demonstrated the inositol effects in terms of better insulin sensitivity, ovulatory function, androgen levels reductions; FSH ovarian response and on the metabolic pattern.

Objective: To evaluate the therapeutic effect of the insulin sensitizing integration on the androgenetic alopecia (AA)

**Methods:** Exclusion criteria: Use of hormonal medications including oral contraceptives or insulin-sensitizing in the previous six months. Inclusion criteria: Hyper androgenism with skin symptoms. AA rated according to Ludwig scale, hirsutism rated with F.G. score modified (Hatch), acne based on the face, chest and back injuries number. Patients: Longitudinal observational study on 10-30 pts. Interventions: BMI>25: MYO 550 mg+DCI 13.8 mg (ratio 40/1) plus folic acid 200 mg, soft gel caps twice daily. BMI<25: MYO 2 gr plus folic acid 200 mg, soluble powder twice daily. Plasma levels, clinical signs and self- patients' assessment were recorded at three and six months of treatment. Main outcome measures: 20-70% hair loss reduction without side effects.

Results: Significant reduction in BMI/HC, PCOS and cutaneous hyperandrogenism signs almost all in resolution.

**Conclusions:** Previously our results support the hypothesis about inositol as second FSH messenger. The treatment demonstrated an androgen and their peripheral effects reduction. Further double - blind randomized studies need to better understand the pilosebaceous unit action mechanism to validate the inositol administration definitively.

Notes: