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Dear Doctor,
This edition of my newsletter is dedicated to the epidemic problem of obesity and secondary hyperinsulinism/type 2 diabetes, from an O&G perspective. I will address gestational diabetes screening as well as (as requested by some of you) the role of Metformin in the treatment of PCOS.

O&G NEWSLETTER

OBSTETRICS
SCREENING FOR GESTATIONAL DIABETES

Gestational diabetes (GDM) is on the rise. In the past, when lifestyles were different, pregnant women were younger and had lower BMIs, the prevalence of GDM was low, approx 2-3% of pregnancies. Currently it is estimated that its prevalence has increased to at least 5-10%.
The National Guidelines of screening are currently recommending a 'two-step' approach: a 50 g non-fasting glucose challenge test (GCS), followed if needed by a 75 g glucose tolerance test (OGTT). This approach will detect approx 75-80% of women with GDM.
When prevalence was low, this was not so important, but now the number of 'missed' women has become significant. The 'two-step' also leads to a delay in diagnosis, and will miss women with fasting hyperglycaemia. It has been observed that approximately a quarter of those with abnormal GCS will not even proceed to an OGTT.
New Zealand is proposing a new approach, which seems to be more effective. They recommend the use of HbA1C as a screening test together with the first antenatal bloods. In pregnancy, HbA1C decreases by 6 to 10 weeks gestation and usually remains lower throughout; anyone with a value above 5.9% is likely to have underlying pre diabetes or diabetes.
While the test is not useful in diagnosing GDM, it will screen and pick up problems earlier, so that these women may already be offered dietary advice, as well as have an OGTT at 24-28 weeks, rather than an initial screening test. They suggest that other women with a higher risk profile, due to either family history or ethnical background, should also be referred directly for an OGTT.
These new guidelines seem reasonable, and many of us IVF specialists (who see a significant number of patients at risk), as well as obstetrics practitioners have started implementing these strategies in everyday practice. I believe this offers an increased opportunity to educate women and potentially improve their pregnancy and long-term outcomes, including prevention of neonatal macrosomia with further diabetes and obesity

I am happy to let you know that our Menopause Clinic is once again up and running, taken over by the new addition to our family, lovely Dr Le Le Myo, DRANZCOG

GYNAECOLOGY
METFORMIN FOR THE TREATMENT OF POLYCYSTIC OVARIAN SYNDROME

PCOS is an important cause of menstrual disorders and androgen excess in women. When fully expressed, it may include hirsutism, obesity, anovulation and infertility, as well as cardiometabolic disorders. It is a common endocrinopathy, affecting approx 5-7% of reproductive age women.
The use of Metformin, which is FDA approved only for the treatment of type 2 diabetes mellitus, has been often extended 'off-label' to treat or prevent several clinical problems associated with PCOS, such as oligomenorrhoea, hirsutism, obesity, prevention of type 2. DM and infertility, as well as prevention of gestational diabetes and early miscarriage.
Numerous and various studies were conducted in the past few years examining its efficacy in treatment of the above medical conditions, and this is a summary of results and current recommendations:

1. For oligomenorrhoea, the first-line of treatment for endometrial protection is oestrogen-progestin therapy/ alternatively progestin therapy alone. Metformin may be used as a second line therapy, as it may restore regular cycles in cca 50% of women, but it has not been proven to be endometrium protective. There is inadequate data to recommend the use of the oral contraceptive plus Metformin, as there is no evidence of metabolic benefit in combining the two.

2. For treatment of hirsutism, Metformin is of no benefit.

3. While Metformin may restore ovulation and in some studies even improve pregnancy rates, clomiphene citrate is superior and the combination of the two does not offer any additional benefit. There is no benefit to live birth rate if Metformin is used.

4. All obese women who wish to conceive should be advised for weight loss, and clomiphene is superior to Metformin in inducing ovulation. Even if it is not a weight loss drug per se, Metformin may be useful as an adjuvant to diet and exercise.

5. Metformin should not be used to prevent gestational diabetes. 6. It has not been shown to prevent pregnancy loss and should not be used for this purpose alone.

7. It does not affect negatively maternal or neonatal outcomes if used, and it is safe in breastfeeding.

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