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**METHODS OF ACHIEVING NORMOOVULATION IN PATIENTS WITH POLYCYSTIC OVARIAN SYNDROME**

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**Introduction**- Polycystic ovarian syndrome is characterised by an excess of androgens and oligomenorrhea. PCOS patients have abnormalities in metabolism of androgens and estrogen. High serum concentrations of androgenic hormones may be encountered in this patients. However, individual variation are possible and patient may have normal androgen levels. PCOS is also associated with peripheral insulin resistance and hyper insulin emit, and obesity amplifies the degree of both abnormalities against the background of genetic susceptibility. However the treatment of PCOS remains controversial. The purpose of this study is to improve therapeutic approach in the management of PCOS, menstrual recovery and non induced ovulation.

**Materials and methods** – the study included patients with anovulatory cycle with a confirmed diagnosis of PCOS (N= 52, age – 25.7 years), which compared the effects of treatment for 1 year. All patients were divided into two groups. In group A (N=26), an oral contraceptive was used. In group B (N= 26), metformin treatment aimed at reducing excessive visceral fat was used. Endocrine and metabolic parameters ( insulin resistance index, androgens), body mass index were assessed before and after treatment. Ovulation was confirmed by folliculometry by transvaginal ultrasound.

**The results**- In patients of both groups, excess androgens decreased during treatment. However, more normalising effects were observed in group B, including normalisation of HOMA index. Also in group B, on average, ovulation was 3 times higher than in group A patients.

**Conclusion**- The results of a study in patients with PCOS show that treatment with metformin leads to a healthier carbohydrate metabolism, possibly by reducing the amount of visceral fat than in the treatment with oral contraceptives, and to the normalisation of the menstrual cycle.