Introduction
Polycystic Ovary Syndrome - a complex of endocrine and metabolic disorders. Ovarian dysfunction and infertility of women with polycystic ovaries is the main reason of the visit to a gynecologist-endocrinologist and reproductologist. More than 70% of anovulatory infertility forms are directly related to PCOS.
One of the reasons of infertility and miscarriage is considered to be PCOS with insulin resistance. Due to the fact that metformin has anti-metabolic, endocrinological, and vascular effect and has a favorable effect on the risk factors that cause to loss of pregnancy, we used it for women with endocrine factor.

Material and methods
We conducted a retrospective study of 86 women with PCOS at the planning stage of pregnancy.

Results
45 of 86 women were diagnosed PCOS and insulin resistance. This group of patients received therapy with metformin in a dose of 500 - 1500 mg per day. Pregnancy was achieved by 15 women (33.3%) after use of metformin. They continued to take metformin during the first trimester.

41 patients with PCOS without insulin resistance were involved into the IVF program. For infertility treatment with the help of ART methods ovulation induction with gonadotropins followed by intrauterine insemination were performed for one group (15 patients), 2 pregnancy were achieved (13.3%).

Another group (26 patients) were performed IVF / ICSI, stimulation protocol with antagonists and trigger ovulation Diferelin, embryo transfer was performed at the next cycle, 17 pregnancies were received (65.4%).

Conclusions
Basing on the studies it was found that the use of metformin for correcting insulin resistance is effective at the stage of pregravid preparation and at the first trimester for pregnant women with spontaneous pregnancies.
Patients with PCOS without insulin resistance are related to favorable group infertility VRT.