ASSOCIATION OF ORAL CONTRACEPTIVE AND METFORMIN DID NOT IMPROVE INSULIN RESISTANCE IN WOMEN WITH POLYCYSTIC OVARY SYNDROME

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Objective: The aim of this study was to compare clinical and laboratory parameters in women with Polycystic Ovary Syndrome after the use for 6 months of metformin or combined oral contraceptive (COC), isolated or in association. Methods: retrospective study analyzing records of patients with PCOS using the AE-PCOS criteria (2006). Nutritional orientation and stimulation to exercise were given before and during treatment. The patients were divided in 3 groups: I - COC (21 tablets, pause of 7 days; n=16); II - metformin (850mg 12/12h, n=16); III - COC plus metformin (n=9). Clinical parameters evaluated: BMI (body mass index), acne (% of improvement), modified Ferriman-Gallway index and MCI (menstrual cycles index). Laboratory parameters observed: LH, FSH, total testosterone (TT), androstenedione and HOMA-IR index. For statistical analysis, unpaired t and Mann-Whitney tests, and for statistical significance, the Holm-Sidak method (?=5%). Results: the isolated use of COC compared to metformin was better with statistically significance regarding acne, Ferriman, MCI, LH, TT and androstenedione and, on the other hand, metformin was better in the HOMA-IR index (4.44 and 1.67 respectively, p = 0.0007). The association COC and metformin, compared to metformin alone, shows the maintenance of improvement of acne, Ferriman, MCI and TT. The HOMA-IR remained lower in the metformin alone group, with statistically significance (4.19 and 1.67 respectively, p = 0.046). In turn, the comparison between COC plus metformin and COC alone doesn’t show statistical differences in the improvement of acne, Ferriman, MCI, LH, TT and androstenedione, showing that probably the addition of metformin doesn’t bring additional benefits in these parameters. Still, the HOMA-IR was similar in both groups (4.19 e 4.44 respectively; p = 0.75), showing that the use of metformin when in association with COC may not improve insulin resistance as occurs when in isolated use. Conclusions: our data suggest that the insulin resistance may be worse in patients who receive the association of oral contraceptive and metformin than metformin alone.