

ABSTRACT

EVALUATION OF EFFICACY AND SAFETY OF MYOINOSITOL IN WOMEN WITH POLYCYSTIC OVARIAN SYNDROME TREATED AT A TERTIARY CARE HOSPITAL

BACK GROUND

Polycystic ovarian syndrome(PCOS) or stein-leventhal syndrome is a most common endocrine disorder, affecting 20% of reproductive age women in terms of absence of ovulation and fertility, impaired glucose tolerance and a defect in the insulin signalling pathway which seems to be implicated in the pathogenesis of insulin resistance. For this reason, insulin lowering medications represent novel approach in women with PCOS. The aim of this study is to evaluate the efficacy and safety of myoinositol in PCOS patients.

MATERIALS AND METHODS

The study was a prospective, randomized clinical study conducted after obtaining institutional ethical clearance. Total of 90 patients were recruited according to Rotterdams criteria, they were divided in to 3 groups of 30 each; patients of Group 1- control; Group 2- Metformin 500mg and Group 3- Myoinositol 2gm. Both groups took the drugs twice a day, continuously for six months. Hormonal and metabolic parameters were evaluated. Statistical analysis was carried out by Students's paired't' test with P value of < 0.05 was considered to be statistically significant.

RESULTS

The results revealed that there is significant reduction in various clinical parameters such as LH, LH/FSH ratio, Prolactin, Free Testosterone, DHEA-S, TSH, fasting insulin, TC and TGL. Out of 30 patients in each group, 60% of metformin and 87% of myoinositol group showed ovulation and 18 (60%) and 17 (56.66%) from metformin and myoinositol group are married and infertile. During the treatment period, metformin and myoinositol showed pregnancy positive with 11 out of 18 (61.11%) and 15 out of 17 (88.24%) respectively. And moreover MI treated group did not showed any adverse events.

CONCLUSION

The present study was concluded that the myoinositol is an effective and safer drug for the treatment of PCOS in terms of regularization of menstrual cycle, induction of ovulation and improving the success rate of pregnancy in infertility cases with minimal adverse effects .

KEY WORDS

Polycystic Ovarian Syndrome (PCOS), Myoinositol (MI), Metformin, Ovulation, Infertility, Hormonal and Metabolic Profile.