Introduction

More and more papers hypothesized that there might be a relationship between the concentration of myo-inositol in the follicular fluid and oocyte quality, and because of inositol phospholipids are held responsible for important signals intracellular essential for the development of the oocytes, either because the myo-inositol seems to improve the in vitro maturation of oocytes. The effects of myo-inositol, in addition to being studied as predictive markers of oocyte quality and thus the fertility female, were also analyzed in patients with metabolic syndrome, postmenopausal showing that a diet supplemented with myo-inositol may help to significantly improve the systolic and diastolic pressures, cholesterol and serum triglycerides, thus becoming a reliable option in the treatment of the metabolic syndrome in postmenopausal women.

Materials and methods

Between March 2011 and July 2012, we conducted a longitudinal study of 32 women. Inclusion criteria have included women between 43 and 50 years and an FSH value < 35 mIU/ml. Exclusion criteria considered women who were not on hormone replacement therapy (HRT) or phytoestrogens.

The treatment consisted in the administration of 2gr. of myo-inositol (Inofolic, Lo. Li Pharma, Italy), twice a day. The group of women included patients with a variation of FSH between a minimum of 15 mIU/ml and a maximum of 30 mIU/ml, with a statistical average of 27.17, a standard deviation of 2.7463 and a standard error of 0.4855.

Results

Levels of circulating FSH reduced significantly after 3 months of treatment (T1) and the reduction continues at six months (T2) even if it is not significant compared to T1. The statistical analysis carried out using the Repeated Measures ANOVA gave a P value of 0.0519.

Discussion

Various studies have shown the positive effects that the administration of MY has on hormonal and metabolic parameters in patients with PCOS and the results support the hypothesis of a primary role of IPG as a second messenger of insulin signal and show that the administration MY significantly influences the hormonal milieu in patients with PCOS. Were also demonstrated its effects against a reduction in plasma levels of insulin, HOMA index as well
as against other hormonal parameters as LH, LH / FSH, PRL and testosterone and against the same menstrual cycle regulation. The action of insulin-sensitizing MY, resulting in a reduction in the levels of circulating androgens results in a consequential reduction in estradiol levels at the time of HCG administration, can form in these patients a means by which to reduce the risk of developing ovarian hyperstimulation syndrome (OHSS). Our longitudinal study shows a good reduction of FSH (particularly in the first 3 months of treatment), clearly further studies with greater statistical power will be needed to definitively validate the addition and the continuation of inositol administration.