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TITLE

EFFICACY OF MYO-INOSITOL VERSUS METFORMIN IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME (PCOS) WHO UNDERGO FIV-ICSI CYCLES

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ABSTRACT

Context: polycystic ovary syndrome (PCOS) is the most frequent cause of infertility associated to anovulation. Within the insulin resistance therapy group, since a few years back we have inositol and its variations as a treatment strategy.

Objective: Taking into consideration the innocuity and good tolerance of this vitamin reported in literature, we have investigated de efficacy of Myo-Inositol compared to that of Metformin in patients with PCOS that are undergoing treatment of assisted reproduction in terms of quality of retrieved oocytes (immature oocytes and oocytes y II stage metaphase)

Methods: We conducted a retrospective observational study, with cases and controls in patients with PCOS that underwent fertility treatment (IVF -ICSI) in the fertility department of University Hospital Montepríncipe from January 2008 until July 2015. A total of 389 patients were recruited, 185 in the group that received Myo-Inositol 2gr/24h orally and 189 in the group that received Metformin 850 mg/24h orally.

Results: Both groups were similar in clinical characteristics as well as comorbidities. There were no statistically relevant differences within the number of oocytes in metaphase II retrieved (10,11±5,27 in the Myo-inositol group and 9,84±5,41 in the Metformin group). In the group that received treatment with Myo-Inositol there were less immature oocytes (6,35±5,07 case group vs 8,02±6,82 control group, p=0,022). The number of class B embryos retrieved on the Myo-Inositol group was higher than in the metformin group (0,58 Vs. 0,50, p= 0,043); and a higher rate of clinical pregnancy (64,37% vs 39,90%, p<0,001). For the secondary variables studied, there were no statistically relevant differences.

Conclusion: There seems to be better results in patients treated with Myo-Inositol in relation with a fewer oocytes in metaphase II and a higher rate of clinical pregnancy.

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