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# Does using the combined oral contraceptive pill for scheduling in the GnRH antagonist protocol for IVF/ICSI reduce the pregnancy rate?

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Context
Oral contraceptive pills (OCPs) are now used for cycle scheduling in gonadotropin-releasing hormone (GnRH) antagonist cycles. They provide greater flexibility for scheduling treatment. While they allow better workload distribution and greater convenience in in vitro fertilisation (IVF) units, their effect on the pregnancy rate in GnRH antagonist cycles is uncertain.
Objective
This retrospective study aims to evaluate the effect of OCP pretreatment on cycle outcomes and in particular, pregnancy rate.
Methods
This study was carried out in the IVF unit of a university teaching hospital, the Edinburgh Fertility Centre, where 550-600 IVF cycles are performed annually. Oocyte recovery was only carried out on weekdays.
Patients
All 272 consecutive patients under the age of 40 who underwent IVF or intracytoplasmic sperm injection (ICSI) treatment using the GnRH antagonist (Cetrorelix) protocol together with Gonal-F (follitropin alfa) stimulation from 18 January 2014 to 8 April 2017 were included.
Interventions
Patients in whom the OCP was used for cycle scheduling were treated with Microgynon 30 (ethinylestradiol and levonorgestrel) for 14-21 days starting on day 1 of menses. Oocyte recovery was only carried out on weekdays.
Main outcome measures
Clinical outcomes and cycle characteristics were compared between patients with and without OCP pretreatment.
Results
The OCP and non-OCP groups were similar in terms of age, body mass index, parity, smoking status, random Anti-Müllerian hormone level, primary cause of infertility, proportion with elective single embryo transfer and proportion with polycystic ovarian syndrome. No significant difference in clinical pregnancy rate between OCP (41.7%, n=156) and non-OCP (40.5%, n=116) groups was observed. The two groups were also similar in terms of the dose and duration of ovarian stimulation, number of oocytes recovered per cycle and ongoing pregnancy rate.
Conclusions
Our results suggest that pregnancy rates are comparable between patients with and without OCP pretreatment administered Cetrorelix and Gonal-F. OCP pretreatment allows flexible scheduling of

workload and does not appear to have a detrimental effect on clinical and ongoing pregnancy rates in patients undergoing the GnRH antagonist protocol.

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