



ELIMINATION OF A POLICY OF EMPIRIC ANTIBIOTIC THERAPY FOR MALE PATIENTS PRIOR TO COLLECTION FOR IVF RESULTS IN NO DIMINUTION IN FERTILIZATION RATE

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Abstract:

OBJECTIVE: Multiple studies have suggested a link between leukocytospermia (LEUK) and reduced motility and decreased fertilization capacity. Given that there is often an extended period of time between initial semen analysis (SA) and collection for IVF, some practitioners fear that the absence of LEUK on initial analysis does not preclude its presence when it matters most. Others fear risk of infection at time of fertilization. As a result, many clinics give empiric antibiotics to male partners in the days leading up to oocyte retrieval. However, no data exists to support this practice. Given these concerns, this abstract compares fertilization rates in the 1 year prior to and 1 year after a single clinic discontinued empiric antibiotic therapy for males.

DESIGN: Retrospective descriptive

MATERIALS AND METHODS: Prior to 2016, all male partners received empiric doxycycline or ciprofloxacin (if allergic) from the start of their partner's stimulation cycle until day of retrieval. All empiric treatment was discontinued in January 2016. Only males with evidence of LEUK or infection on initial SA received antibiotic treatment after this policy change. All IVF cycles for one year after policy change (1/2016 to 12/2016) were compared against all cycles for one year prior to change (1/2015 to 12/2015). Cases using donor sperm, frozen samples, surgically retrieved sperm, and donor oocytes were excluded. The primary outcome was fertilization rate (FR). Female partners' charts were also reviewed for hospitalization due to suspected infection after transfer. A generalized estimating equation (GEE) model was used to control for female age and patient specific correlation among oocytes from the same cohort.

RESULTS: A total of 1920 and 1753 cycles met inclusion criteria in 2015 and 2016, respectively. Pooled fertilization rate was higher in 2016 than 2015 (83.5% [16598/19886] vs. 82.5% [17353/21038], $p < 0.01$). After controlling for female age and patient specific correlations in the GEE model, antibiotic exposure was not associated with the likelihood of successful fertilization. There were no hospitalizations for suspected infection following fresh embryo transfer in either group.

CONCLUSIONS: Discontinuation of empiric antibiotic therapy for male partners in the days prior to collecting a specimen for IVF had no impact on fertilization rate. Treatment should be reserved for male patients with suspected infection. Given known untoward side effects of widespread antimicrobial use, all empiric antibiotic use in IVF regimens deserve careful scrutiny.