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TITLE

ADVERSE IVF OUTCOME IN WOMEN WITH ANTICHLAMYDIAL ANTIBODIES IN SERA AND FOLLICULAR FLUID

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ABSTRACT

Context: Adverse IVF outcome in women with antichlamydial antibodies in sera and follicular fluid.

Objective: To examine where there is an association between antichlamydial antibody positivity and in vitro fertilization (IVF) outcome in women with tubal factor of infertility (TFI).

Methods: Serum and follicular fluid samples were analyzed using enzyme-linked immunosorbent assay (ELISA) for anti-C.trachomatis IgG, IgA and anti-chlamydial heat shock protein 60 kDa (cHSP60) IgG.

Patient(s): In a prospective study, patients with TFI undergoing IVF were divided to 2 groups according to ELISA results: 122 seropositive (main) and 120 seronegative subjects (comparison).

Intervention(s): None.

Main Outcome Measure(s): Primary outcomes were clinical pregnancy, miscarriage and life birth rates; secondary: major controlled ovarian stimulation (COS) and in vitro stage parameters.

Result(s): Frequency of anti-C.trachomatis IgG, IgA and anti-cHSP60 IgG detection was 50.4%, 10.7% and 5.8% in sera; 37.1%, 4.6% and 5.6% – in follicular fluid. No significant differences between the study groups in major stimulation and in vitro stage parameters were established. 'Poor response' was 2 times more frequent in the main group (22.9% vs. 13.3%, $p=0.039$). Seropositive and seronegative women had similar clinical pregnancy (20.5% vs. 25.0%), life birth (13.1% vs. 20.0%) and miscarriage rates (36.0% vs 16.7%, $p=0.092$). Incidence of missed abortion after IVF was almost 7-fold higher in the main group (28.0% vs 3.3%, $p=0.018$).

Conclusions: Every second woman with TFI undergoing IVF has serological markers of previous exposure to C.trachomatis. Antichlamydial antibody status is not related to oocyte maturity, embryo quality, pregnancy and life birth rates. However, past chlamydial infection in TFI patients is associated with decreased IVF success: 'poor response' to COS and missed abortion rate.

INSTITUTE

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