Detection of M. hominis and U. urealyticum in semen samples of infertile men referring to the Royan Institute with PCR method in 2008-2009

Mohammad Hosein Ahmadi*

Objectives: Infection of genital Mycoplasmas such as M. hominis & Introduction and U. Urealyticum may have harmful effects on the reproductive health of men and may lead to male infertility. This study was performed to detect the prevalence of these bacteria in infertile men referred to the Royan Institute by using of PCR method.

Material & Methods: In this descriptive cross sectional study, semen samples were collected from 220 infertile men and were divided to 2 sections, first section was used for semen analysis and second section was used for PCR test in which U4 and U5 primers were used for amplification of urease gene of U. urealyticum and RNAH1 and RNAH2 primers for amplification of 16S rRNA gene of M. hominis.

Results: From a total of 220 semen samples tested, 4.1% were positive with PCR test for only M. hominis, 29.1% for only U. urealyticum and 11.4% for both of the bacteria. 44.5% were positive for at least one bacterium. Evaluation of semen parameters showed that pH was lower in the two groups: “only U. urealyticum positive” and “both of two bacteria positive”, rather than the group “both of two bacteria negative” (p=0.000); Also the mean of sperm motility was lower in group “both of two bacteria positive” rather than the group “both of two bacteria negative (p=0.009).

Conclusions: Results of this study show that high percent of infertile men are infected with these bacteria. If these infections are not diagnosed and treated may lead to PID and infertility; so, isolation of these bacteria in infertile men with no clinical symptoms is necessary and for this purpose, using of PCR as a specific method can be very useful.

Keywords: M. hominis, U. urealyticum, infertile men, semen, PCR.
پیام محمدی

جمهوری اسلامی ایران
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گواهی ارائه پوستر

بسم الله الرحمن الرحیم

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