

Rate of *Chlamydia trachomatis*, *Mycoplasma hominis* and *Ureaplasma urealyticum* in Infertile Females and Control Group

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Key Words: Chlamydia trachomatis, Mycoplasma hominis, Ureaplasma urealyticum, infertile females

ABSTRACT

Infertility in female is one of the most important sequela of genital infection with *Chlamydia trachomatis*, *Mycoplasma hominis* and *Ureaplasma urealyticum*. In the present study the frequency of these bacteria was studied in 125 infertile female by direct and indirect immunofluorescence tests and culture method and compared with 250 normal population. *Mycoplasma hominis* was isolated from 32 (35.6%) of infertile females compare with 18 (7.2%) of normal population. *Ureaplasma urealyticum* was isolated from 41 (32.8%) of infertile females compare to 48 (19.2%) of normal population. *Chlamydia trachomatis* was detected by direct IF in 11 (8.8%) of infertile and 2 (0.8%) control group. The antibody titer against D-K serotypes of *Chlamydia trachomatis* was also measured in both groups of infertile and normal population and a positive titer of 1/16 and above was detected in 26 (20.8%) of infertile cases and in 8 (3.2%) of control group. The rate of *Chlamydia trachomatis*, *Mycoplasma hominis* and *Ureaplasma urealyticum* in case and control groups was significant (respectively $P < 0.0001$, $P < 0.0001$, $p = 0.0018$).

INTRODUCTION

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($P < 0.0018$). It was reported the rate of these bacteria in healthy persons 39.5% and 45%, respectively (17,20).

The obtained results from the study of the samples for detection of *Chlamydia trachomatis* particles by the method of direct immunofluorescence indicates that in infertile females 11(8.8%) and in control group 2(0.8%) were positive ($P < 0.0001$). It was reported the rate of *Chlamydia trachomatis* by direct immunofluorescence in infertile females 18.8% (3).

In this study specific antibody titer equal or more than 1/16 against serotypes D to K of *Chlamydia trachomatis* was observed in 26(20.8%) of infertile females and 8 (3.2%) of control group ($P < 0.0001$). Our results is nearly the same as reported (18, 19).

Z statistical analysis test with 99% confidence showed that the rate of *Chlamydia trachomatis*, *Mycoplasma hominis* and *Ureaplasma urealyticum* case and control group was significant.

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Table 2. Frequency distribution of case and control groups on the basis of bacteria detection

Bacteria	Case group		Z	P
	N = 125			
	Control group		N = 250	
<i>Mycoplasma hominis</i>	32 (25 . 6)	18 (7 . 2)	4.94	<0.0001
<i>Ureaplasma urealyticum</i>	41 (32 . 8)	48 (19 . 2)	2.92	0.0018
<i>Chlamydia trachomatis</i> (Direct - IF)	11 (8 . 8)	2 (0 . 8)	3.99	<0.0001

Table 3. Frequency distribution of females on the basis of specific antibody titers against *Chlamydia trachomatis* in case and control groups

Antibody titers	Case group				Control group				Z	P
	N = 125				N = 250					
	Positive n = 26				Positive n = 8					
Against chlamydia	1/128	1/64	1/32	1/16	1/128	1/64	1/32	1/16		
Number	0	10	6	10	0	2	2	4	5.58	p<0.0001
Percentage	0	8.8	4.8	8.8	0	0.8	0.8	1.6		

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