CLINICAL GENITAL INFECTION IN INFERTILE WOMEN WITH CHLAMYDIA TRACHOMATIS INFECTION

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SUMMARY

Chlamydia trachomatis infection is being recognised as one of the important causes of pelvic infections. It is also being realised that infection due to chlamydia is subclinical with dangerous consequences. In the present study done in 95 infertile women it was seem that detection of chlamydia trachomatis by ELISA was significantly ($p < 0.05$) higher in asymptomatic cases. Chlamydia positivity by E L I S A was also independent of routine culture positivity of cervical or endometrial aspirate.

INTRODUCTION

Chlamydia infection in the female may present as mucopurulent cervicitis with cervical ectopy and oedema, acute urethral syndrome with the main symptoms of dysuria, pelvic inflammatory disease (PID), with symptoms of lower abdomal pain and tenderness and perihepatitis where in there may be right upper quadrant abdominal pain. However diagnosis of chlamydial infection is very difficult. In addition many women with PID of chlamydial origin have minimal symptoms, signs (Westrom et al 1984). Two thirds of suspected cases are confirmed at laparoscopy. Recent studies indicate that about 30 to 50% women with laparoscopically confirmed PID in USA are infected with chlamydia trachomatis (Sweet et al 1983). In the present study an attempt has been made to find out the correlation of chlamydia disease detected by ELISA with clinical genital infection in infertile women.

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MATERIAL AND METHODS

Present study was done in 95 infertile woemn with or without symptoms and/or signs of genital infection. 25 women (group I) were asymptomatic (other than infertility 35 women had symptoms of lower genital tract (LGT) infection (group II) and 35 women had symptoms of upper genital tract (UGT) infection (group III). These women's cervical swabs were examined for chlamydia trachomatis infection by Pharmacia chlamydia

TABLE I

Correlation of chlamydia test in various groups of patients

Group	Total	Chlamydia test			
		chlamydia +ve		chlamydia -ve.	
I	25	9	(36)	16	(64)
II	35	10	(28.57)	25	(71.43)
III	35	4	(11.43)	31	(88.51)
Total	95	23	(24.21)	72	(75.79)

Figures in parenthesis indicate percentages.

TABLE II

Correlation of chlamydia detection and urine, cervical swab and endomerial aspirate cultures in 3 groups of patients

	Total	Group 1 (n=25)			Group 2 (n=15)			Group 3 (n=35)		
		Urine	Cx swab	End. Asp.	Urine	Cx swab	End. Asp.	Urine	Cx swab	End. Asp.
Chlamydia Positive										
Culture+ve.	22	3	8	4	5	8	3	3	4	2
Culture-ve.	1	6	1	5	5	2	7	1	-	2
Total	23	9	9	9	10	10	10	4	4	4
Chlamydia Negative										
Culture+ve.	70	10	12	9	15	22	12	17	28	16
Culture-ve.	2	6	4	7	10	3	13	14	3	15
Total	72	16	16	16	25	25	25	31	31	31

ENZYME labelled immunosorbent assay (ELISA). The cervical swabs, endometrial aspirates and urine of these women were subjected to routine and gonococcal culture.

OBSERVATIONS

It was seen that a significantly high number of women who were positive for chlamydia infection were asymptomatic (p value< 0.05) (Table I). Further it was found that many women who were positive for chlamydia trachomatis infection did not have pathogens in the urine, cervical swabs and endometrial aspirates. There was no statistically significant difference from chlamydia negative group (Table II). Chlamydia positivity did not correlate with the clinical or microbiological evidence of genital infection. Amongst the 23 chlamydia positive patients, the urine of 12 patients was sterile (52.17%) as compared to 30 out of 72 (41.67%) chlamydia negative patients. The cervical swabs of 3 chlamydia positive - patients (13.03) were sterile and also 10 from chlamydia negative group (13.89%) were sterile. In the Chlamydia positive group 14 patients (60.87%) had sterile endometrial aspirate as compared to 35 (46.67%) from chlamydia negative group. Difference in cervical swab endometrial aspirate and urine positivity was not significant though there was higher incidence of presence of other pathogens in chlamydia negative patients.

DISCUSSION

It has been suggested that Chlamydia trachomatis is the possible etiological agent in many women with pelvic inflammatory disease (Treharne et al 1979). Chlamydia infection may lead to serious complications which are not always clinically apparent (Kundsin et al 1986). The disease may be so mild that there is no clinical evidence (Ledger 1989).

In our study results of chlamydial positivity by ELISA were independent of routine cervical swab culture, urine culture and endometrial aspirate culture of patients in the 3 groups.

Hence neither symptoms nor signs of clinical genital tract infection nor pathological cultures from urine and endometrial aspirate should be used as deciding criterion to screen patients for Chlamydia trachomatis. On the contrary chlamydia trachomatis was more commonly detected in those patients whose urine and endometrial aspirate were sterile and who were asymptomic.

CONCLUSIONS

Looking at the results of present study it can once again be concluded that Chlamydia trachomatis genital infection is usually an asymptomatic disease. Association of this infection is independent of presence of other pathogens in urine, cervical swabs and endometrial aspirates.

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