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Low prevalence of chlamydial endocervical infection in antenatal South Indian women

The role of genital *Chlamydia trachomatis* infection in pregnancy outcome is controversial.^{1,2} There is a paucity of data from India on the prevalence of genital *C trachomatis* infection in pregnancy and therefore we determined its prevalence in pregnant women, attending a tertiary care hospital in South India and assessed the effect of such infection on the outcome of pregnancy. *C trachomatis* infection was diagnosed using Chlamydiazyme test (Abbott Laboratories). This test, reported to be both sensitive and specific,^{3,4} is based on the enzyme immunoassay principle and detects the presence of chlamydia antigen in the endocervix.

Endocervical swabs were collected from 273 consecutive pregnant women attending our antenatal clinics at 26-36 weeks of gestation and processed following the manufacturer's instructions. The results were read in an Abbott Quantum II spectrophotometer using Chlamydiazyme programme. Any result equal to or greater than the cut off value calculated using the programme was considered positive.

Nine of 273 women included in the study were positive. The group studied included 100 primigravidae and 173 multigravidae. Four from the former group and five from the latter tested positive. The prevalence was higher in rural women. Six (5.9%) among

102 rural women were positive compared with three (1.8%) of 171 urban women. The results were compared with the socioeconomic status of patients assessed using a scoring system taking into account the occupation and education of the husband. None of the 44 women with lower scores had chlamydia. Three among 73 women with higher scores and six among 156 middle group were positive. None of these differences were statistically significant. In the nine women with chlamydia, the infection could not be correlated with clinical parameters like vaginal discharge, bleeding on swabbing, ectropion, dysuria or abnormal urine microscopy.

Two hundred and seven women of the study group including seven who were chlamydia antigen positive were delivered in this hospital. Association of chlamydial infection with preterm labour, premature rupture of membrane and low birthweight is shown in the table. Although there was an increased incidence of these in the infected group, the difference was not statistically significant.

The prevalence of *C trachomatis* in the population studied was 3.3%. The reported prevalence of this infection in pregnancy varies from 2-24%, usually around 7-12%.^{1,5} A prevalence of 2.9% in obstetric patients was reported from China⁶ which is similar to our findings.

From the present study which is the first of its kind from India, it appears that prevalence of *C trachomatis* infection is too low to play any major role in adverse pregnancy outcome in this area. This, however, is a hospital based study and a larger population based study may be necessary to assess the actual magnitude of the problem.

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Table Association of endocervical chlamydia infection with pregnancy outcome

Test	No. studied	Preterm labour		PROM		LBW	
		No.	%	No.	%	No.	%
Positive	7	1	(14.3)	2	(28.6)	1	(14.3)
Negative	200	7	(3.5)	35	(17.5)	23	(11.5)

PROM = premature rupture of membranes; LBW = low birthweight.

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Prevalence and awareness of hepatitis B virus carrier status in Italy

Knowledge of hepatitis B surface antigen (HBsAg) status is the first and easiest preventive measure for reducing diffusion of hepatitis B virus (HBV) in sexual partners, family members and, more in general, in the community. To assess the extent of knowledge of HBsAg status in an Italian population, we have reanalysed data for subjects interviewed as controls in a case-control study of risk factors for lichen planus conducted in northern Italy between 1989 and 1990.¹ A total of 1031 subjects (529 men, 502 women, median age 47 years, range 16-88 years) were interviewed in the outpatient services of participating centres for dermatological conditions other than lichen planus (such as pityriasis rosea, urticaria, psoriasis, neoplastic skin diseases, exanthemas, skin infections, burns). Subjects were not included if they had cutaneous diseases associated with liver dysfunction. Ten of the 1031 subjects (1.0%) declared at the interview that they were HBSAg positive. At the time of the interview, a serum sample was also taken. Based on serological determinations, 27 subjects (2.7%), including the 10 patients who reported HBsAg positivity, were HBSAg carriers. Although our controls are not a representative sample of the Italian population, they are probably a sample not biased toward a lower than average attention to health problems. As a consequence, our results suggest that a large proportion of Italian HBSAg carriers are unaware of their condition.

The estimated prevalence of HBsAg carriers in Italy lies between 2% and 4% (2-3); and, based on our results, 1.2-2.5% of Italian people (about 700 000-1 400 000 subjects) may be unaware of their HBsAg carrier status, with obvious consequences in terms of public health, that is, diffusion of HBV infection.

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In vitro susceptibility of *Trichomonas vaginalis* strains to metronidazole—a Nigerian experience

Recent reports have indicated the prevalence of cases of refractory vaginal trichomoniasis associated with isolates that were resistant to metronidazole.³⁻⁵

We have tested the in vitro susceptibility to metronidazole of 41 freshly isolated local strains of *Trichomonas vaginalis* at Jos University Teaching Hospital, Nigeria to determine the possible emergence of resistant strains in our locality. The strains were isolated using the trichomonas medium as modified by Adebayo, 1988. The minimum inhibitory concentrations (M.I.C.) of metronidazole to the isolated strains were determined using the disc broth method of Smith and DiDomenico.⁷

The minimum inhibitory concentration ranged from less than 0.03 mcg/ml to 2.0 mcg/ml, using 10⁵ organisms per millilitre inoculum size and at 2 days incubation period. Thirty strains (73.17%) had M.I.C. of less than 0.03mcg/ml, while only 3 (7.32%) had the highest prevalent M.I.C. of 2.0 mcg/ml (see table)

Table Activity in vitro of metronidazole against *T. Vaginalis* (minimum inhibitory concentration)

M.I.C. (Mcg/ml)	Number of sensitive strains	% Sensitivity
< 0.03	30	73.17
0.06	3	7.32
0.25	1	2.43
0.50	2	4.88
1.0	2	4.88
2.0	3	7.32
Total	41	100

It is therefore concluded that the *Trichomonas vaginalis* strains in our locality are still very sensitive to metronidazole, and any treatment failures may be due to non-compliance and re-infection on the part of the patients. Also the cure of vaginal trichomoniasis does not simply have a direct relationship between susceptibility of the organism and drug dosage, but probably depends on a complex interaction of several factors including drug susceptibility, intra-vaginal redox potential which may regulate the amount of drug taken up by the parasite⁵ and the accompanying vaginal microflora which may modify the amount of available drug in situ.²

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