PostScript

LETTERS

Declining trends in syphilis prevalence among antenatal women in northern India: a 10-year analysis from a tertiary healthcare centre

Syphilis is a disease that has been around for a long time and that continues to challenge clinicians, including obstetricians.¹ Maternal syphilis has a severe impact on pregnancy outcome, primarily as spontaneous abortion, still birth and congenital syphilis.² Screening of asymptomatic antenatal women is recommended to prevent perinatal complications.³ In developing countries such as India, screening for syphilis during pregnancy is carried out by Venereal Disease Research Laboratory (VDRL) tests. We undertook this retrospective study to analyse trends in syphilis prevalence among antenatal women in a tertiary care hospital of north India.

Laboratory log books of antenatal syphilis testing from 1996–2005 were reviewed. A total of 40 511 serum samples were obtained from pregnant women attending (during the period January 1996 to December 2005) the antenatal clinic of Nehru Hospital, which is attached to the Postgraduate Institute of Medical Education and Research, Chandigarh, north India. All samples were subjected to VDRL testing, which was carried out using standard methods, and quantitative VDRL testing was performed for positive samples.⁴ Thus, a positive VDRL was considered to indicate syphilis. *Treponema pallidum* particulate agglutination (TPPA; Fujibero, Japan) testing was done on some positive VDRL sera due to the unavailability of kits at certain times and the inability of some women to afford the cost of the test. Age for antenatal women was recorded.

Of 40 511 samples obtained during the 10-year period, 738 (1.82%) samples were VDRL reactive. Overall, syphilis prevalence among pregnant women decreased significantly ($p < 0.01$) from 3% in 1996 to 0.84% in 2005, with the highest decrease occurring in 1997 (from 3% to 2.48%) and in 2004 (from 1.4 to 1%) (table 1). Chi square testing was used to study

the trends over time. TPPA could be performed only on 252 of 738 VDRL-reactive sera. Thus, almost 50% of the reactive VDRL sera were also TPPA positive. If this figure is assessed for other VDRL-reactive sera not subjected to TPPA testing, a total of 371 TPPA-reactive sera may be obtained, giving a VDRL and TPPA reactivity of 0.9%. The mean age of women with a positive VDRL test was 26.5 years. The majority of women were screened between 15 and 22 weeks of gestation.

The overall VDRL positivity of 1.8% in the present study is comparable to another study carried out in Nigeria in which a prevalence of 1.3% has been reported.⁵ However, a limited number of studies carried out in India have shown prevalence ranging from 2.5% to 3.4%.^{6,7} A decline in seroreactivity for syphilis has also been reported in developing countries such as Nigeria,⁵ in which a decline from 3.9% to 1.3% was seen in 6 years. The downward trend in the prevalence of syphilis among pregnant women in northern India could be due to greater awareness and better education of women about the features and complications of syphilis—by both doctors and nursing staff during antenatal visits. Moreover, in India the management of sexually transmitted infections is now being monitored, which could be one of the factors for the decline. The decline could also be due to the over-the-counter availability of antibiotics in India, which has led to their more widespread use.

Although the prevalence rate of syphilis was low in 2005, continued screening of pregnant women should be carried out as this will reduce the adverse effects of undiagnosed and untreated syphilis. Furthermore, we recommend the treatment of all women who are VDRL reactive, irrespective of TPPA status, as reagents of TPPA are not always available in developing countries (partly due to cost). Moreover, testing of both husbands and wives is of utmost importance in the diagnosis, treatment and prevention of syphilis in newborns.

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Sexual behaviour and knowledge about HIV/AIDS and sexually transmitted infections among health sciences students from Chile

The aim of AIDS educational campaigns is to reduce the spread of HIV infection by changing attitudes and practices related to high-risk behaviours. However, before such programmes can be implemented, certain assessments should be conducted. These include assessments of the existing knowledge, attitudes and sexual practices of specific risk groups.¹ Among those groups assessed should be professionals and volunteers who are engaged in managing patients with AIDS. For these reasons, we evaluated the knowledge and practice about HIV/AIDS and sexually transmitted infections (STIs) in health sciences students from Chile.

We adapted, modified and then validated the World Health Organization's standardised survey inventories assessing AIDS-related knowledge, attitudes, beliefs and practices for adolescents.^{2,3} A 23-question survey, conducted among students from the schools of medicine and attention to mental retardation (AMR; known as Parvularia in Spanish, studied during first and fifth years) at the Antofagasta University (northern Chile) was used to evaluate knowledge and practice about HIV/AIDS and STIs. This evaluation was performed during 2005. The total registered number of students for both careers was obtained, then using this as the universe population, with a confidence level of 99.99%, we calculated the probabilistic sample to survey. The required survey sample size was calculated using Epi Info V.6.0. Statistical analysis with SPSS V.10.0 involved use of the χ^2 test, Student's *t* test and Fisher's test using 95% CIs (significant at $p < 0.05$).

From a total population of 5100 students (59.8% medicine, 40.2% AMR), 30.2% were surveyed (95% CI 26.3 to 34.4%; 55.2%

Table 1 Syphilis prevalence among pregnant women in north India (1996–2005)

Year	VDRL test	No. of reactive sera	%	TPPA test	Reactive sera	%
1996	4000	120	3	66	35	53
1997	4028	100	2.48	34	20	58.82
1998	4100	95	2.31	15	10	66.66
1999	4214	82	1.94	21	6	28.57
2000	4079	71	1.74	17	5	29.41
2001	3800	66	1.73	19	10	53.63
2002	4300	71	1.65	30	20	66.66
2003	4154	60	1.44	28	10	35.71
2004	4029	41	1.01	10	6	60
2005	3807	32	0.84	12	5	41.66
Total	40511	738	1.82	252	127	50.39

TPPA, *Treponema pallidum* particulate agglutination; VDRL, Venereal Disease Research Laboratory.