ARTICLES

Obstetric practices related to HIV in Kerala

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Abstract

This survey of obstetricians' knowledge and practices in two districts in Kerala, India, finds a number of unethical practices: most providers are unaware of the value of the rapid screening test for HIV; they do not give pregnant women the option to refuse testing; testing is done without counselling, private doctors refer pregnant women who test positive to government hospitals, and some health services have separate facilities for pregnant women who test positive.

Women and children are the most seriously affected in the HIV-AIDS epidemic. With 27 million pregnancies and with the current prevalence of HIV infection among pregnant women in India, an estimated 100,000 HIV infected women deliver every year (1). The number of HIV-positive women is increasing, and with it the number of babies with HIV infection. To prevent the spread of the disease from mother to child, HIV counselling and testing along with confidentiality and ethical obstetric practice are important. But unethical obstetric practices have been reported from different parts of the world. A study by Guenter et al from Canada shows that antenatal care providers place little emphasis on informed consent (2). A study in Botswana found that counselling in antenatal care is inadequate in terms of availability, content and quality; only one-half of all clients have been counselled and one-half of those have agreed to HIV testing (3).

According to the current national guidelines of India and state level guidelines in Kerala, all pregnant women accessing antenatal services should be offered HIV testing after counselling by a trained counsellor, and their informed written consent should be obtained. An "opt-out policy" should be employed: that is, every antenatal attendee should be informed about the benefits of HIV screening and should be told that she will be screened unless she expresses her unwillingness to undergo HIV screening. The test results should be given to the woman in the post-test counselling session and confidentiality about the test results should be maintained. Finally, health services must not segregate facilities for women who test positive; standard universal safety practices will prevent infection transmission (1,4,5,6,7,8).

Objective and methodology

Our objective was to study the attitudes and practices of obstetric practitioners, with particular reference to the prevention of HIV transmission from parent to child during the intrapartum period, in two districts of Kerala, India

The sampling frame for this cross sectional study included all the obstetricians in the two districts of Kerala that were chosen for the study. The sample size was calculated keeping in mind that 75 per cent (±7 per cent) of obstetricians have correct knowledge about HIV testing (9). Using EPI Info version 3.3.2, the sample size for the cross sectional survey with a 95 per cent confidence interval was estimated to be 147 obstetricians, which was rounded off to 150 obstetricians in three districts of Kerala. A good response led to 207 filled questionnaires being collected from two districts. With the permission of the institutional ethics committee, the study was restricted to these two districts.

The data were collected with the help of a piloted, structured, close-ended, self-administered questionnaire, which took 10 to 15 minutes to fill. It contained questions on the background of the respondents, their knowledge about HIV testing and their practices related to HIV testing and counselling. One question was on separate institutional arrangements for HIV-positive pregnant women.

The investigator contacted the participants at their workplace and distributed the questionnaire. Clarifications were offered when required by the participants. The data collected from the survey were coded and de-linked from the source and analysed using SPSS 11.0 version. The associations between variables were examined using chi-squares and the Fisher's exact test. It took four months to collect the data, analyse them and write the report.

Ethical considerations

The study was conducted after an approval from the institutional ethics committee of the Sree Chitra Tirunal Institute of Medical Science and Technology, Thiruvananthapuram. Written consent was taken from the relevant institutions and the individual participants. The participants were asked not to write their name on the questionnaire. All the quantitative data were coded. The codes were entered into the data entry sheet and the identity of the individuals was kept confidential. In order to maintain confidentiality, the districts are referred to as "District-1" and "District-2".

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Results and findings

A total of 280 questionnaires were distributed among obstetricians (276 female and 4 male, 150 in district-1 and 130 in district-2) in government and private hospitals. The overall response rate was 74 per cent; that is, 207 persons responded (Table 1). Providers from public and private hospitals participated in the study in almost equal numbers.

Table 1. Characteristics of obstetricians

Variable		Number
District	1	112
	2	95
Sex	Male	2
	Female	205
Type of provider	Government provider	98
	Private provider	109

Knowledge of the HIV rapid screening test

Among the participants only 13 per cent (n=27) were trained in HIV/AIDS. Of the respondents who answered a question on the HIV rapid test's positive predictive value, 69 per cent said that they did not know, at all, how many women would truly test positive with the rapid HIV test. Another 16 per cent gave the correct answer, and the rest gave the wrong answer (Table 2). On further analysis it was found that a greater proportion of obstetricians from the private sector (79 per cent, n=77) than from the public sector (59 per cent, n= 52) stated that they did not know the positive predictive value of the test (p value =0.003).

Table 2. HIV testing knowledge of obstetricians

Knowledge of HIV testing	Response	Number (%)
With the help of the screening test, out of 100 pregnant woman in Kerala who test positive, how many are true positives?(the correct answer is " less than 25")	75 to 100	21(11.3)
	50 to 75	2(1.1)
	25 to 50	5(2.7)
	Less than 25	29(15.6)
	Don't know	129(69.4)
	Total	186

Women's option to refuse the HIV test

When asked whether pregnant women were given the choice to "opt out" of the HIV test, 158 of the 202 doctors, who answered the question, said that pregnant women were **not** given the choice of opting out of the HIV test (Table 3). Almost 90 per cent of private providers (98 out of 109) compared to 64.5 per cent of government providers (60 out of 93) refused pregnant women this choice.

Table 3. Protocol followed for HIV testing: the "opt out" choice

HIV testing practices	Response	Number (%)
Are pregnant women given the choice to opt out of a HIV test?	Yes	44(21.8)
	No	158(78.2)
	Total	202

HIV testing practices of obstetricians

Almost 80 per cent of the providers said that all pregnant women came for consultation regarding HIV and most of them came during the first trimester.

Ninety per cent of obstetricians from the private sector asked for routine HIV testing compared to 63 per cent of their government hospital counterparts (P value <0.001).

When asked where pregnant women were sent for HIV testing, 123 of the 205 who answered said they sent them to private centres. The rest said the women were directed to government centres. Government providers were more likely to send women to government testing centres (80 out of 98 or 81.6 per cent), and private providers were more likely to send women to private centres 105 out of 107 or 98.1 per cent) (P value <0.001). Fifty-three per cent (51 out of 96) of obstetricians working in private hospitals referred HIV positive women to other centres compared to 11 per cent (10 out of 89) of their counterparts working in government hospitals (P value <0.001). Women were usually referred to the PPTCT centre in the medical college.

None of the private diagnostic centres had counsellors trained for HIV counselling. The pregnant women were given post-test counselling only if the results were positive at the Prevention of Parent to Child Transmission (PPTCT) centre. HIV negative pregnant women were not given post-test counselling at both the PPTCT centres covered in this study.

Arrangements for HIV positive pregnant women

In response to the question of separate arrangements for HIV positive pregnant women in the hospital, while 66 per cent said they did not have separate arrangements, 22 per cent of obstetricians said the institution had a room for pre-labour, 27 per cent said they had a labour table and 18 per cent said there was a separate bed in the ward for HIV positive pregnant women. Separate arrangements were reported at PPTCT centres in medical colleges.

Discussion

The main findings of the study are:

a. The majority of providers were unaware of the positive predictive value of the HIV rapid test used for screening.

b. Routine HIV testing is practised by most providers without proper counselling.

c. Most providers do not give pregnant women the choice to "opt out" of the HIV screening test.

d. Obstetricians in the private sector refer screened HIV positive cases to government hospitals.

e. PPTCT sites run by the government have separate arrangements for persons infected with HIV.

The first finding reveals a shocking ignorance by obstetricians which has major ethical implications. The remaining findings are clearly contrary to national guidelines.

Knowledge of the HIV test

The sample size was calculated on the premise that 75 per cent of obstetricians have correct knowledge of HIV testing (9). But we found that only 16 per cent were aware of the positive predictive value of the HIV screening test.

Adequate knowledge is important for scientific and ethical clinical practice. This includes knowledge about a test's sensitivity, specificity and positive predictive value. This becomes all more important when stigma and discrimination are high in the community.

False positive results indicate that HIV is found to be present when, in fact, it is not. The positive predictive value of a test depends both on the test that is used (in particular, the test's specificity) and the prevalence of infection in the population tested. Prevalence of HIV among ANC in Kerala is 0.33 per cent, in the year 2004 (15). Given the sensitivity of HIV-1 test 99.7 per cent and specificity 98.5 per cent (16), the true positive is 16.6 per cent. Thus a single rapid test could yield a false positive rate of more than 75 per cent. Understanding this will help obstetricians to retest with more specific tests if a person tests positive with the first rapid test.

Routine HIV testing without counselling

Voluntary counselling and testing is the process by which an individual undergoes counselling which may enable her or him to make an informed choice about being tested for HIV. The Joint United Nations Programme on HIV-AIDS (UNAIDS) guidelines recommend voluntary HIV testing to preserve a woman's right to refuse testing if she does not think it is in her best interests (10).

The National Family Health Survey-2 reports that 98 per cent of mothers in Kerala receive at least three antenatal check ups and the private sector is their major obstetric care provider (11). But during the time of our study only government medical colleges had trained counsellors. Private hospitals and other government institutions did not have trained counsellors, but all institutions routinely screened for HIV.

Choice of "opt out" from HIV screening

Although the policy is to make available the opportunity to "opt out", a majority of providers in both the public and the private sectors did not offer this option to pregnant woman. Another study done in India had reported similar findings (12). According to the World Health Organisation, routine testing of pregnant women without consent or without access to counselling is an unacceptable practice and the disadvantages may counterbalance any benefit obtained from knowing the HIV status of the woman (13). Sherr et al have raised the concern that HIV testing without proper counselling and informed consent is counter productive in antenatal settings (14).

Referral of cases to government hospitals

The fact that pregnant women who screened positive in private institutions were referred to government hospitals for further testing and treatment, speaks of the need for better knowledge. When the diagnosis could have been confirmed, this unnecessary referral may amount to denial of services to HIV positive pregnant women.

Perhaps patients are referred to government medical colleges due to a non-availability of facilities. But the private sector is the major player in Kerala in obstetric care; more than half of the deliveries and around 40 per cent of Caesarean sections take place in private institutions (17). So what is the intention behind the referral? Its primary objective seems to be the personal protection of obstetricians.

A lack of regulation related to HIV testing without counselling, and the poor implementation of existing guidelines, means that basic human rights will continue to be violated at these institutions. Post-test counselling only for women who test positive during the screening test and not for others is bound to draw attention in a crowded hospital. The national and state policies on PPTCT remain silent on how providers in institutions where counselling and testing facilities are not available will diagnose, treat or refer the cases to PPTCT centres.

Separate arrangements for HIV positive pregnant women

According to a four-country study done by the International Centre for Research on Women (18), institutional stigma refers to differential treatment within any broadly defined institutional setting. It includes: a) excessive and unnecessary precautions by health staff, b) the use of separate medical tools for people with HIV or AIDS, c) placing people with HIV in separate rooms, and d) the denial of health services The labour room arrangements at both the PPTCT centres indicate a gross violation of the guidelines for the treatment of HIV patients (7,8). This is similar to what is happening in Mumbai and Bangalore, as reported by another study (19).

Limitations

One of the limitations of the study was there were very few male obstetricians in the study. Finally, there may be selection bias and interviewer bias, but these have not been examined in this paper.

Conclusion and recommendations

All obstetricians should be trained in basic counselling skills so that they can at least give pre-test and post-test counselling services. An intensive awareness campaign among health professionals about confidentiality and ethics when dealing with HIV positive persons is imperative. Finally, obstetricians should be trained in the use of universal precautions, regardless of their patient's HIV status.

References

1. National AIDS Control Organisation. *Guidelines for the prevention of mother to child transmission of HIV*. New Delhi: Ministry of health and family welfare, government of India; [Cited 2005 Oct 17]. Available from: http://www.nacoonline.org/guidelines/guideline_9.pdf
2. Guenter D, Kaczorowski J, Carroll J, Sellors J. Prenatal HIV tests. Routine testing or informed choice? *Can Fam Physician* 2003 Oct; 49:1334-40.
3. Baggeley R. Botswana MTCT pilot project review and draft proposal for evaluation of infant feeding practices by mothers in the PMTCT and non-PMTCT sites. [database on the internet]. Geneva**:** UNICEF**;** 2000 January. [Cited 2005 Oct 19]. Available from http://www.unicef.org/evaldatabase/files/BTW_2001_800.pdf

4. National AIDS Control Organization. *Annual report, 2002-2003, 2003-2004 (up to 31st July 2004).* New Delhi: Ministry of health and family welfare, government of India; 2004 Aug.
5. National AIDS Control Organization. Voluntary counselling and testing. Operational guidelines 2004. New Delhi: Ministry of health and family welfare, government of India; date NA. [cited 2005 Oct 17]. Available from: http://www.nacoonline.org/guidelines/vct_guidelines.pdf
6. National AIDS Control Organization. Guidelines on HIV testing. New Delhi: Ministry of health and family welfare, government of India: date NA. [Cited 2006 April 10]. Available from: http://www.nacoonline.org/guidelines/guideline_10.pdf
7. Kerala State AIDS Control Society. Guidelines for the establishment of Prevention of Parent to Child HIV Transmission Centres. KSACS. Official communication to the principal medical colleges. 2004.
8. Kerala State AIDS Control Society. Protocol to be followed by the antenatal clinics where PPTCT centre is functioning. Letter no SACS4/294/02. Kerala State AIDS Control Society. 2005 June 8.
9. Guenter D, Carroll J, Kaczorowski J, Sellors J. Prenatal HIV testing in Ontario: knowledge, attitudes and practices of prenatal care providers in a province with low testing rates. *Can J Public Health* 2003; 94(2): 93-97.
10. Joint UN Programme on AIDS. *Prevention of HIV transmission from mother to child: strategic options*. Geneva: UNAIDS; 1999. UNAIDS/99.40E.
11. International Institute for Population Sciences (IIPS) and ORC Macro. National Family Health Survey (NFHS-2),India, 1998–99: Kerala. Mumbai: International Institute for Population Sciences; 2001 Dec.
12. Chase E, Aggleton P. *Stigma, HIV/AIDS and prevention of mother-to-child Transmission: A pilot study in Zambia, India, Ukraine and Burkina Faso*. London**:** UNICEF/Panos Institute; 2001.
13. World Health Organisation/ Joint UN Programme on AIDS. *HIV in pregnancy: a review*. Geneva: WHO/UNAIDS; 1999. [cited 2005 Oct**].** Available from: http:/www.who.int/reproductive-health/publications/archive/rhr_99_15/hiv_in_99_15/hiv_in_pregnancy.pdf
14. Sherr L, Bergenstrom A, Hudson N. Consent and antenatal HIV testing: the limits of choice and issues of consent in HIV and AIDS. *AIDS Care* 2000 June; 12 (3):307-312.
15. NACO. Observed HIV Prevalence levels State wise: 1998 – 2004. Facts & Figures. Cited 2005 October 19. Available from http://www.www.nacoonline.org/facts_statewise.htm
16. Centers for Disease Control (CDC). Update: serologic testing for HIV-1 antibody—United States, 1988 and 1989. *MMWR Morb Mortal Wkly Rep*. 1990;39:380-3.
17. Hemachandran K. *Burden cause and cost of caesarean sections*. Working paper series, Trivandrum: AMCHSS, SCTIMST; 2003.
18. Ogden J, Nyblade L. *Common at its core: HIV-related stigma across contexts*. Washington, DC: International Center for Research on Women; 2005.
19. Bharat S, Aggleton P, Tyrer P. *India: HIV and AIDS-related discrimination , stigmatization and denial*. Geneva: UNAIDS; 2001 Aug.

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