

PostScript

LETTERS

Hepatitis B and C viral infections among STD clinic patients in India

While many studies from other countries^{1,2} document hepatitis B virus (HBV) and hepatitis C virus (HCV) infection rates in STD clinic patients, very few data are available from India. In the present report, we have analysed the rate of HBV and HCV infections in STD patients by using serological and molecular methods of diagnosis.

The study subjects were symptomatic STD patients (n = 143), who attended the STD clinic, Government General Hospital, Chennai, between September 1998 and August 2000, randomly included for a study on STDs after obtaining informed consent. Blood samples were evaluated for hepatitis and HIV markers by ELISA kits; HBsAg, HBeAg/anti-HBe (Biorad laboratories, USA), anti-HCV (Murex Diagnostics, UK), anti-HIV 1 and 2 (Xyton Diagnostics, India). Anti-HIV positivity was confirmed by another EIA kit (Sanofi Pasteur, France). Detection of HBV DNA and HCV RNA was performed by polymerase chain reaction (PCR)³ and RT-PCR⁴ methods.

The serological and molecular marker profile for HBV and HCV is shown in table 1. HBsAg was positive in 37 (25.9%) patients, while HBV DNA was detected in 25 (67.6%) of them. HBV DNA was detected in 23 of 28 HBeAg positives and two of nine anti-HBe positive cases. The overall HBV positivity rate was significantly higher in females than in males (33.7% v 15.9%; p<0.05). Anti-HCV was positive in six (4.2%) patients and five of them showed HCV-RNA positivity. RT-PCR additionally detected HCV-RNA in two anti-HCV negative patients. The overall HCV prevalence was 5.6%. Anti-HIV positivity was seen in 24 (16.8%) patients. Men had a significantly higher HIV positivity rate compared to women (27% (17/63) v 8.8% (7/80); p<0.05). HIV co-infection was observed in five (13.5%) of the HBV infected patients and in two (25%) of the HCV positive patients in whom HCV RNA alone was positive.

There was a low prevalence of injection drug use (7.7%), history of blood transfusion (5.6%), and homosexual contact (2.9%) and these risk factors showed no correlation with

HBV and HCV positivity. Having multiple sexual partners was a risk factor significantly associated with HBV and HCV positivity in men. Men who had multiple sexual partners (n = 35) had 14.3% HCV positivity and 17.1% HBsAg positivity, while in those who did not report multiple sexual contact, 3.8% had HBsAg positivity and none had HCV positivity.

The results of the present study suggest that STD clinic patients may be considered as a targeted high risk group for routine screening for HBV and HCV to control the high infection rates. HIV co-infection in HBV/HCV infected patients is a matter of concern to evolve better clinical management strategies. Our data emphasise the need for molecular diagnosis to prevent underdiagnosis of HCV infection in STD/HIV patients. The HBV positivity rate (26%) observed in the present series of STD patients is high compared to previous Indian reports.^{3,6} HBV vaccination in STD patients may be a much needed intervention to strengthen STD control programmes in India. Further large studies are required to assess the magnitude of HBV and HCV infections, role of sexual transmission, and associated risk factors in the STD population.

A G Joyee, S P Thyagarajan, E Vikram Reddy, C Venkatesan, M Ganapathy

Dr ALM Postgraduate Institute of Basic Medical Sciences, University of Madras, Chennai-600 113, India

Correspondence to: Sadras Panchatcharam Thyagarajan, University of Madras, Chepauk, Chennai-600 005, Tamil Nadu, India; sprajan@md4.vsnl.net.in

doi: 10.1136/sti.2003.008946

Accepted for publication 29 April 2004

References

- 1 Gunn RA, Murray PJ, Ackers ML, *et al*. Screening for chronic hepatitis B and C virus infections in an urban sexually transmitted disease clinic: rationale for integrating services. *Sex Transm Dis* 2001;**28**:166-70.
- 2 Smikle M, Dowe G, Hylton-Kong T, *et al*. Hepatitis B and C viruses and sexually transmitted disease patients in Jamaica. *Sex Transm Infect* 2001;**77**:295-6.
- 3 Cheung LC, Shih JW, Alter HJ, *et al*. Application of polymerase chain reaction for HBV subtyping.

In: Hollinger FB, Lemon SM, Margolis HS, eds.

Viral hepatitis and liver disease. Baltimore: Williams and Wilkins, 1991:229-31.

- 4 Cha TA, Koleberg J, Irvine B, *et al*. Use of a signature nucleotide sequence of hepatitis C virus for detection of viral RNA in human serum and plasma. *J Clin Microbiol* 1991;**29**:2528-34.
- 5 Risbud A, Mehendale S, Basu S, *et al*. Prevalence and incidence of hepatitis B virus infection in STD clinic attendees in Pune, India. *Sex Transm Dis* 2002;**78**:169-73.
- 6 Singh S, Thappa DM, Jaisankar TJ, *et al*. Sexual co-transmission of HIV, hepatitis B, and hepatitis C viruses. *Sex Transm Infect* 2000;**76**:317-18.

Female sex workers and fear of stigmatisation

Female sex workers are often forced to work underground and away from their local communities. Historical records show that female sex workers have been frequently singled out for social control and treated as a distinct section of the community. This social rejection and isolation has serious repercussions on the health provisions to them and on their willingness to seek medical care.

In some countries, including Iran, presence of prostitution and sexually transmitted infections (STIs) is systematically denied, being considered a taboo by the government and the majority of the society. There is no official record of the prevalence of prostitution in Iran. Sex workers in Iran are suffering from unavailability of medical services and knowledge about STIs. Social stigmatisation stops these resource deprived women from seeking proper medical care and treatment.

In a follow up study in 2002 in Kermanshah, Iran on 100 men with gonorrhoea most of whom had met a female sex worker before the infection, Zargooshi¹ reported an average 84% failure rate of standard therapies. This was much higher than the 12-25% resistance rate in the study by Zirak-Zadah *et al* in 1977 of sex workers of Shahre-Now (a brothel in Tehran before 1979), whose infection and resistance rate were similar to their American counterparts of that era.² In those days sex workers had health coverage, something totally ignored these days. Fear of stigmatisation and prosecution, and high rate of self treatment seem to be responsible for the high rate of resistance to standard therapies.

The increasing rate of STIs and HIV/AIDS is alarming! Young girls and boys are among the high risk populations.³ The ministry of education has taken some steps forward and is now working hard on preventive education against STIs with special focus on HIV/AIDS,^{3,4} though there is no definite programme for the out of school children.

According to the ministry of health, injecting drug use (62.78%) and sexual contact (7.27%) are the two main routes of transmission of HIV/AIDS in Iran, and 26.12% of the cases are grouped under "unspecified route of transmission" according to the report.⁵ Lack of any reliable records of the underground sex industry makes the data shaky.

Though in Iran commercial sex is not so widespread as in many other countries, sex workers should be considered as patients and efforts should be made to provide appropriate

Table 1 Serological and molecular markers for HBV and HCV in STD clinic patients in relation to sex

HBV and HCV markers	Males (n=63)	Females (n=80)	Both (n=143)
	No positive (%)	No positive (%)	No positive (%)
HBsAg	10 (15.9)	27 (33.7)	37 (25.9)
HBe Ag	7 (11.1)	21 (26.3)	28 (75.7)
Anti-HBe	3 (4.8)	6 (7.5)	9 (24.3)
HBV DNA	6 (9.5)	19 (23.7)	25 (17.5)
Overall HBV positivity	10 (15.9)	27 (33.7)	37 (25.9)
Anti-HCV	3 (4.8)	3 (3.6)	6 (4.2)
HCV RNA	5 (7.9)	2 (2.5)	7 (4.9)
Overall HCV positivity	5 (7.9)	3 (3.7)	8 (5.6)

health coverage and preventive education on STIs and HIV/AIDS with no prejudice. Adhering to unfounded propaganda and denial of the social realities propagates the social ills with catastrophic public health consequences.

Correspondence to: M R Mohebbi, Tehran, Iran; mrmohbbi@yahoo.com

doi: 10.1136/sti.2004.010512

Accepted 29 April 2004

References

- 1 Zargooshi J. Characteristics of gonorrhoea in Kermanshah, Iran. *Sex Transm Infect* 2002;**78**:460–1.
- 2 Zarak-Zadah T, Delavarian H, Bahavar MA, et al. Penicillin-resistant strains of Neisseria gonorrhoeae in Shahre—now. *Trop Doct* 1977;**7**:57–8.
- 3 Gheiratmand R, Navipour R, Mohebbi MR, et al. A country study to review existing capacity building and management of the training of teachers on preventive education against HIV/AIDS in the schools in IR Iran. December 2003. Available from the official website of the Deputy of Physical Education and Health, Ministry of Education of the IR Iran, www.neshat.org/html_pages/a_country_study_to_review_exisit1.htm (accessed 23 March 2004).
- 4 Mohebbi MR, Navipour R. Preventive education against HIV/AIDS in the schools of Iran. *Indian Pediatr* 2004;**41**:466–7.
- 5 Center for Disease Control, Office of the Deputy for Public Health, Ministry of Health and Medical Education of the IR Iran. *HIV/AIDS in Iran (Cumulative Statistics)*. Tehran, Iran: 2003, (In Persian).

Clinically resistant trichomoniasis

We read with interest the recent review on trichomoniasis and would like to share our experience of a patient with clinically resistant infection, in whom various therapies were tried until we achieved a successful response.¹

A 39 year old Irish female factory worker presented in April 2001, complaining of a copious malodorous vaginal discharge associated with vulval soreness following unprotected sexual intercourse with a casual male partner 4 months previously. On examination the vulva and groin were erythematous and there was a profuse frothy yellow vaginal discharge with a pH >4.5. Microscopy revealed *Trichomonas vaginalis* and she was treated with a 5 day course of oral metronidazole 400 mg twice daily as per the UK national guidelines.² Screening for chlamydia and gonorrhoea was negative.

Over the next 10 months, she re-attended a further eight times with persistent symptoms and on each occasion denied any sexual contact or non-compliance with treatment. After her third visit, a management strategy was implemented on the basis of a literature review with a named clinician. In total, she received two courses of oral metronidazole (one preceded by oral amoxicillin³), three courses of metronidazole suppositories (used as pessaries), a single dose of tinidazole, and a course of acetarsol and nonoxynol-9 pessaries. However, despite the planned treatments microscopy was repeatedly positive. She even had her intrauterine device removed in case this contributed to the problem.

Finally, in February 2002, she was treated with oral metronidazole 400 mg three times

daily and metronidazole pessaries 1 g daily for 2 weeks following the recommendations of another consultant colleague in the region. Her symptoms had resolved and microscopy was negative when reviewed 3 weeks later. She did not experience side effects secondary to the high dose metronidazole and continued 1 g pessaries once every 2 weeks for 2 months as maintenance therapy. The frequency was then reduced to every 4 weeks for 2 months and, reassuringly, microscopy remained negative. Treatment was then stopped and she has not re-attended subsequently.

Management of patients with treatment failure is challenging as sensitivity testing is currently unavailable. A key factor in this woman was her frustration with multiple therapies, which resulted in erratic attendance. Acetarsol and nonoxynol-9 pessaries have been used with varying results but in our patient both were unsuccessful.^{3–5} In persistent infection it is important to ascertain a patient's compliance with therapy and any possibility of re-infection, both of which were excluded. The use of extended courses of treatment has also been suggested in the management of other vaginal infections such as candidiasis and bacterial vaginosis.^{2,6} Certainly, in our patient this approach was required.

The distressing symptoms associated with clinically resistant trichomoniasis cannot be underestimated, thus sharing anecdotal management experience is essential. Devising a treatment schedule and providing a named clinician to ensure continuity of care is invaluable for such patients. We would suggest that re-treating with a prolonged course of oral and vaginal metronidazole at an early stage can result in a favourable outcome and should be considered.

C E Cohen

St Stephen's Centre, Chelsea and Westminster NHS Trust, London, UK

N M Desmond

The Garden Clinic, Upton Hospital, Slough, UK

Correspondence to: Dr Charlotte Cohen, St Stephen's Centre, 2nd floor, Chelsea and Westminster Hospital, 369 Fulham Road, London SW10 9NH, UK; cemcohen@hotmail.com

doi: 10.1136/sti.2004.011379

Accepted for publication 27 May 2004

Source of funding: none.

Conflict of interest: none.

References

- 1 Swygard H, Seña AC, Hobbs MM, et al. Trichomoniasis: clinical manifestations, diagnosis, and management. *Sex Transm Infect* 2004;**80**:91–5.
- 2 Clinical Effectiveness Group. UK national guidelines on sexually transmitted infections and closely related conditions. *Sex Transm Infect* 1999;**75**:S21–3.
- 3 Chen MY, Smith NA, Fox EF, et al. Acetarsol pessaries in the treatment of metronidazole resistant *Trichomonas vaginalis*. *Int J STD AIDS* 1999;**10**:277–80.
- 4 Watson PG, Pattman RS. Arsenical pessaries in the successful elimination of metronidazole resistant *Trichomonas vaginalis*. *Int J STD AIDS* 1996;**7**:296–7.
- 5 Livengood CH, Lössick JG. Resolution of resistant vaginal trichomoniasis associated with the use of intravaginal nonoxynol-9. *Obstet Gynecol* 1991;**78**:954–6.

- 6 Wilson J. Managing recurrent bacterial vaginosis. *Sex Transm Infect* 2004;**80**:8–11.

A video mobile phone and herpes simplex

The use of mobile phones in today's society is pervasive, and for genitourinary medicine (GUM) attendees mobile phones as a common form of communication have been documented.¹ However, as far as we are aware, the use of a mobile phone as a diagnostic aid has not been reported.

A 35 year old black Caribbean man presented to our clinic and gave a history of having developed a collection of "small lumps" on his prepuce, 1 week previously. However, he had been unable to attend at that time. He reported that the lumps had improved and had crusted over. He reported no systemic symptoms. On examination there were crusted lesions consistent with healing genital herpes and no palpable lymphadenopathy. Fortunately, the patient had taken a video clip using his mobile phone when the lesions had first appeared (he had taken both a still and a video of his penis). The images were very clear and there was no doubt that this man had had an outbreak of genital herpes. As a result of the images from his video mobile phone we were able to make a confident diagnosis of genital herpes and then have an appropriate discussion with increased certainty.

A second case involved a 41 year old man who presented to the clinic because his long term partner had had an episodic rash affecting the natal cleft for the past 3 years. She had been seen by her GP and had also been referred to a local dermatology department. According to the patient the episodic rash had remained undiagnosed despite a skin biopsy having been performed by the dermatologist. He had taken a picture of the rash during an episode with his video mobile phone. This revealed the characteristic vesicles of herpes simplex infection. He himself had a distant history of genital herpes infection but had no recent recurrences. He was advised to encourage his partner to attend the clinic for further management (along with his mobile phone).

These two consultations illustrate how video mobile phones have been used in our clinic to facilitate and aid diagnosis. Dentists often send photographs via email of suspicious oral lesions to oral medicine specialists. Dermatologists are performing telemedicine consultations with GPs for the diagnosis and subsequent investigation of skin complaints.² The use of mobile phones within GUM services is increasing, with some clinics texting results to patients.³ However, as far as we are aware this is the first time that patients have utilised similar technology to facilitate the diagnosis of genital lesions.

Who knows, maybe in the future, patients will phone up and use their video phones to do distant consultations with GUM physicians. And the complaint: "It has always gone by the time a patient gets to see a doctor" will be a thing of the past.

A M Newell, J Watson

Department of Genitourinary Medicine, Mayday University Hospital, London Road, Thornton Heath, Croydon CR7 7YE, UK

Correspondence to: Antony M Newell, Department of Genitourinary Medicine, Mayday University Hospital, London Road, Thornton Heath, Croydon CR7 7YE, UK; tony.newell@mayday.nhs.uk



Female sex workers and fear of stigmatisation

Sex Transm Infect 2006 81: 180-181
doi: 10.1136/sti.2004.010512

Updated information and services can be found at:
<http://sti.bmj.com/content/81/2/180.2>

These include:

References

This article cites 3 articles, 1 of which you can access for free at:
<http://sti.bmj.com/content/81/2/180.2#ref-list-1>

Email alerting service

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:
<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:
<http://group.bmj.com/subscribe/>