ORIGINAL ARTICLE

Risk Behaviour Associated with HIV Infection among Drug Abusers seen at the General Hospital, Kota Bharu, Kelantan

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Summary

Sixty-one serologically positive HIV infected drug abusers admitted to the Drug Ward, General Hospital, Kota Bharu, were interviewed for possible risk behaviour and AIDS awareness. Fifty-eight subjects were IV abusers while the other 3 were non-IV abusers. All the IV abusers had shared injecting equipment with no regard for sterility. There was non-usage of condoms among those sexually active. Though AIDS awareness was high, there was a lack of risk behaviour change. The drug abusers appear to be a problem group in HIV control measures. Educating the drug abusers and commitment by them to alter risk behaviour is needed.

Key words: HIV seropositivity, drug abusers, risk behaviour.

Introduction

With our current knowledge of Human Immunodeficiency Virus (HIV) infection, we know that most cases of infection are a result of repeated risk behaviour, in the forefront of which is intravenous drug use with contaminated equipment and unprotected high risk sexual activity.

From the mid-70s to the present time, the World Health Organisation (WHO) estimates that between 5 and 10 million persons are infected with HIV throughout the world[1]. As of 1st July, 1991, a total of 371,803 cases of AIDS were officially reported to WHO from 183 countries[2].

Intravenous drug abusers (IVDUs) had contributed to the increase in number of AIDS cases over the last few years. In 1988, the IVDUs accounted for more than 30% of all AIDS cases in the United States[3]. Whereas in 1989, in the European community, it contributed about 42% of all AIDS cases. However, recent trends indicate heterosexual spread of the virus is on the rise.

Though Asia is classified as having pattern III epidemiologically, the situation is changing rapidly in some countries. In South East Asia, the prevalence of HIV infection has greatly increased among the IVDUs, especially in Thailand, where the prevalence is now 50%[4].

In Malaysia, of the total 533 HIV carriers reported by July 1990, 97.2% were males and 76.9% were between the ages of 21 to 35 years. Intravenous drug users account for 77.5% of HIV infections. An update of the HIV statistics 1 year later (July 1991), reported 1,212 carriers of whom about 80% were intravenous drug abusers. This high percentage among the IVDUs may be biased, in the sense that screening for HIV is more complete

for apprehended drug abusers in this country as compared to other risk groups. Purposeful screening among the IVDUs is bound to result in a higher yield.

Up to the end of 1990, about 152,800 drug dependents have been registered with the National Drug Abuse Monitoring System. For the year of 1990, about 7,370 new drug dependents were registered, and out of these, about 1,000 (13.6%) were intravenous drug abusers[5].

IVDUs comprise a very large proportion of HIV infected individuals in the country and the age groups involved (20 to 35 years) are the sexually active group. This poses a threat of heterosexual transmission of HIV infection. If left unchecked, the incidence of the infection is likely to increase among non-drug using heterosexuals, resulting in a widespread epidemic which would be more difficult to control.

This study attempts to investigate the epidemiology, characteristics, risk behaviour pattern and awareness of HIV among the drug abusers who are serologically HIV positive.

Methodology

This cross-sectional study was undertaken at the Drug Detection and Detoxification Ward at the General Hospital, Kota Bharu, Kelantan, from August 1990 to July 1991. The study population included suspected drug abusers admitted to the ward for drug detection and detoxification, who were also serologically HIV positive. The study involved 61 subjects.

Information was obtained by direct interview with the subjects, using a structured questionnaire in Bahasa Malaysia. The questionnaire was structured to contain the following aspects:

1. The sociodemographic details, including information on place of residence, age, sex, marital status, employment and education level.
2. The pattern of drug abuse, including the age when drugs were first abused, types of drugs, duration of drug abuse, routes of administration and information on high risk behaviour.
3. The sexual history, including history of high risk sexual behaviour, past history of sexually transmitted disease and usage of condoms.
4. Information on other risk behaviour, including that of sharing of razor blades and toothbrushes, acupuncture, tattooing and history of blood transfusion.
5. AIDS awareness, gauged by asking the subjects (unprompted) if they had heard of a disease called AIDS/HIV infection, how it is transmitted, how it is not transmitted and whether there is a cure for AIDS. The response was recorded as "yes" or "no" or "do not know". The subject was categorised as being aware if he had heard of AIDS and was aware of the routes of transmission, especially through the use of contaminated needles and syringes and sexual intercourse. Any attempts made at risk reduction were also looked into in those subjects who were aware of AIDS.

Results

All the 61 subjects were admitted under the Magistrate's Court order under section 4(i)(b) of the Drug Dependent (Treatment and Rehabilitation) Act 1983 and agreed to participate in the study.

Sociodemographic data

Twenty-seven (44.3%) of the subjects were from Kota Bharu and 14 (23%) from Tumpat. The rest were from other towns in the East Coast of Peninsular Malaysia, as shown in Table I. The youngest subject was 14 years of age, while the oldest was 45 years old. As seen in Fig 1, 59 (96.7%) of the subjects were in the 16 to 40 years age group.

Table I
Place of residence of the subjects

Place of residence	Number n=61	Percentage
Kota Bharu	27	44.3
Tumpat	14	23
Kuala Krai	4	6.6
Bachok	3	4.9
Pasir Mas	2	3.3
Pasir Puteh	2	3.3
Machang	1	1.6
Gua Musang	1	1.6
Kuala Terengganu	4	6.6
Setiu	1	1.6
Marang	1	1.6
Jerantut	1	1.6
Total	61	100

About two-thirds of the subjects were single. Of those married, 3 (4.9%) were separated and 1 (1.6%) was divorced. Fifty (82%) of the subjects had attended secondary school and 10 (16.4%) had primary education. Only 1 (1.6%) of the subjects had no formal education. As shown in Table II, most of the subjects (85.3%) were employed.

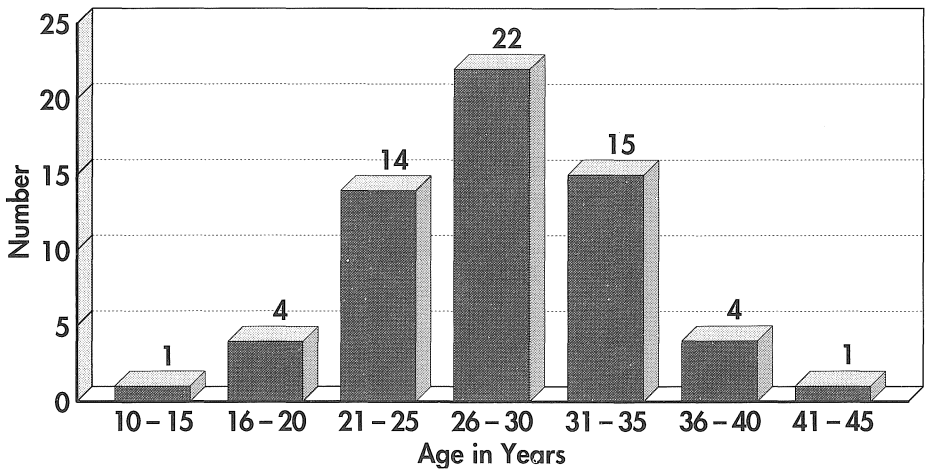

Fig 1: Age of the subjects.

Patterns of drug abuse

The duration of drug abuse varied from 3 months to 18 years. All the 61 subjects were drug dependents, of which 58 were IV abusers while the other 3 were non-IV abusers. The duration of intravenous abuse varied from 1 month to 10 years. As seen from Table III, three-quarters of the subjects had begun intravenous abuse over the last 4 years, that is, since the first case of AIDS was reported in the country.

The most common drug abused was morphine (83.6%), followed by heroin (14.8%) and one of the subjects abused cannabis. The main source of drug supply was from dealers (60.7%) and the rest (39.3%) obtained their supply through their friends.

All the subjects had been sharing their intravenous equipment, either with their friends or with both dealers as well as friends. The number of persons with whom intravenous equipment was shared ranged from 1 to 50. Thirty-four (58.6%) subjects shared with 2 to 10 persons, while 11 (19%) shared with 11 to 20 persons and 13 (22.4%) had shared with more than 21 persons.

Table II
Employment status of the subjects

Employment	Number	Percentage
Labourers	26	42.6
Fishermen	7	11.5
Technical	4	6.6
Clerks	4	6.6
Self-employed	4	6.6
Agricultural workers	3	4.9
Hotel workers	3	4.9
Lorry driver	1	1.6
Unemployed	9	14.7
Total	61	100

Table III
Duration of IV abuse

Duration of abuse	Number	Percentage
<1 year	5	8.6
1 to <2 years	12	20.7
2 to <3 years	8	13.8
3 to <4 years	7	12.1
4 to <5 years	11	19
>5 years	15	25.8

None of the subjects had given importance to cleanliness of their intravenous equipment. If they did clean, it was merely by flushing with water. All gave unavailability of intravenous equipment as their reason for sharing.

Sexual history

From the 61 subjects, 14 (23%) denied any sexual activity, while 47 (77%) had heterosexual relations. None of the subjects admitted to any homosexual relationship.

Thirty-two of the 47 subjects (68.1%) with heterosexual relations had contact with prostitutes and acquaintances, while the other 15 (31.9%) had sexual relations with their wives or regular partners. The number of sexual partners ranged from 1 to 40 as shown in Table IV.

Forty-five of the 47 subjects (95.7%) did not use condoms at all. Only 2 (4.3%) subjects used condoms sometimes, that too with their regular partners, as a contraceptive measure.

Other risk behaviour

About two-thirds of the subjects (63.9%) also had a history of other risk behaviour for spreading or contracting HIV infection. Twenty-nine (47.5%) of the subjects had shared razor blades, 9 (14.8%) shared razors as well as toothbrushes while 1 (1.6%) had shared unsterilised tattoo equipment.

AIDS/HIV infection awareness

Forty-two of the subjects (68.9%) were aware of AIDS. On analysing the educational level and AIDS awareness, it was noted that 37 subjects (74%) with secondary education and 5 subjects (50%) with primary education were aware of AIDS.

Of the 39 intravenous abusers who were aware of AIDS/HIV infection, none changed their drug-taking behaviour and only a small proportion altered their risk sexual activity. Of the 35 heterosexual subjects who were aware of AIDS/HIV infection, none used condoms.

All the subjects who were aware of AIDS/HIV infection had not changed their drug abuse or sexual behaviour in any way.

Discussion

The majority of the subjects in this study were from the border towns of Kelantan and 44.3% were from Kota Bharu itself. This can be partly explained by the fact that the Drug Detection and Detoxification Centre for the state of Kelantan is in Kota Bharu, which makes it convenient for the police to bring the suspected drug abuser to the Drug Detection Centre.

Table IV
Number of sexual partners

No of sexual partners	Number	Percentage
1	12	25.5
2 - 5	8	17
6 - 10	7	14.9
>11	20	42.6
Total	47	100

About two-thirds of the subjects were labourers, which is not surprising as most of the drug abusers are from the lower socio-economic class. They are also geographically mobile and prefer daily paid jobs.

Fifty-eight of the subjects had probably contracted HIV infection either via sharing contaminated intravenous equipment and/or through high risk sexual activity. The 3 non-IV drug abusers could have contracted the infection sexually.

The IVDUs were all sharing intravenous equipment with no regard for cleanliness and sterility. Thus, there was a high chance for the equipment to be contaminated. The number of persons with whom the intravenous equipment was shared ranged from 1 to 50. This is an important aspect to be considered, as a single HIV infected individual can transmit to a large group through contaminated IV equipment.

None of the subjects admitted to homosexual activity and this is not surprising, as homosexuality is considered a taboo in this country. Religious and cultural codes of conduct forbid such practices. However, there may be a possible denial of homosexuality as heterosexual transmission of HIV has been widely acknowledged. It is easier for the HIV infected persons to claim heterosexual exposure instead of homosexual contact[6].

In this study, none of the subjects who had heterosexual relations with prostitutes and acquaintances had used condoms. This finding stresses the importance of promoting the usage of condoms among the HIV infected drug abusers when involved in sexual relations, in order to prevent further spread of the virus. Frank discussions with the IVDUs should be encouraged in an attempt to overcome some of the myths or barriers to the use of condoms.

None of those who were aware of AIDS had changed their risk behaviour. Almost similar findings have been reported by other authors. Baxter (1990)[7]. reported no change in drug-related practices among his subjects but most had reduced their high risk sexual behaviour. Hart (1989)[8]. on the other hand, reported no change in sexual behaviour in his subjects. However, more than half of his subjects reported some change in their drug-use behaviour.

These contrasting findings reflect the differences in perceived risk of contracting the infection. This may influence their choice of risk reduction measures, or it could be due to denial of what AIDS is, or it may simply be the powerful addiction represented by IVDUs.

In view of these findings, it is important that all agencies in contact with IVDUs should repeatedly stress on education, targeting at those indulging in high risk drug-taking behaviour and sexual activities. They should be motivated to alter their risk behaviour. If abstaining from drugs altogether seems unrealistic, the sub-population of drug addicts who are "hard core" needle users could be educated to use clean equipment by either boiling before use or cleaning with household bleach and then rinsing with water. This is not to encourage drug abuse but to try and contain the deadly virus.

The AIDS epidemic poses a real danger of spreading to the general population via the infected drug user, as quite a number of infected abusers are married. Since wiping out drug addiction totally at the moment is impossible, the more pressing problems of the HIV epidemic in the country should be tackled first.

Forming self-help groups may help in organising anti-AIDS campaigns. Ex-drug addicts who have been successfully rehabilitated should be encouraged to form self-help groups for drug abusers. Such groups could provide peer-based psychological support that may not be available elsewhere. Through these self-help groups, further information and education about AIDS can be channelled.

Conclusion

Among the IVDUs, the AIDS/HIV control strategies have not been very succesful. This could be due to the fact that drug abusers are either more resistant to change or they are unaware of the nature and seriousness of the risk they are exposed to. The IVDUs should be made to realise that they are a vulnerable group and given adequate information about AIDS/HIV infection. Through educational counselling, they can be made aware of the possibility of their reducing their risk through a serious commitment on their part to alteration of their risk behaviour patterns.

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