

Short Report

Clinical features of HIV infection in drug users of Manipur

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ABSTRACT

Background. The human immunodeficiency virus was first detected in young intravenous drug users in Manipur in 1989 and it quickly reached a high prevalence in this group. Diagnostic facilities are scarce and it is thus important to suspect the presence of the infection by its clinical features.

Methods. We did a cross-sectional survey for 13 months among residents of different detoxification centres of Imphal, Manipur, to study the sensitivity, specificity and positive predictive values of different signs and symptoms occurring at the early phase of the infection.

Results. Most of the young injectors in this survey were found to be in the early phases (stage I 43%; stage II 32%; stage III 15% and stage IV 9.9%) of the World Health Organization clinical staging of human immunodeficiency virus infection and disease. Herpes zoster, oral candidiasis, pruritic papular eruptions, jaundice and lymphadenopathy had positive predictive values of 100%, 100%, 93%, 93% and 88% respectively. Cryptosporidial diarrhoea and tuberculosis (pulmonary and extrapulmonary) were also encountered.

Conclusion. Intravenous drug users in Manipur who have human immunodeficiency virus infection suffer from different opportunistic infections which give rise to clinical features that are easily recognizable. It is important to be aware of these in areas which lack diagnostic facilities for confirming the infection.

Natl Med J India 1994;7:267-9

INTRODUCTION

The human immunodeficiency virus (HIV) was detected in India in 1986 and the first case of AIDS was diagnosed in 1988.¹ The heterosexual route and transfusion of blood or blood products were thought to be responsible for its subsequent spread. However, in 1989 identification of HIV seropositive intravenous drug users (IDUs) in Manipur, a

northeastern state of India bordering Myanmar, confirmed the presence of intravenous drug use related HIV transmission in the country.² Few areas in India have adequate facilities to diagnose HIV infection and simpler methods for its detection are required. We, therefore, studied the different clinical manifestations of HIV among IDUs in our population to detect the infection clinically.

PATIENTS AND METHODS

One hundred and fifty-four IDUs from different detoxification centres of Imphal, the capital of Manipur, were studied from May 1992 to April 1993. They were told about the cross-sectional clinical survey including voluntary confidential HIV testing. Written consent was obtained from the willing candidates. Clinicians were unaware of the HIV status of the subjects. Recruitment into the study was done irrespective of the clinical and HIV status. Counselling and clinical support services were extended to all the family members and patients who wanted to be cared for at home were visited after discharge from detoxification centres. Their family members were advised regarding domiciliary care.

RESULTS

Clinical staging

Most of the IDUs surveyed were found to be in an early phase³ of HIV infection and all of them had started injecting drugs within the last 7 years (Table I).

Stage I. Out of 56 IDUs in this stage, 37 were asymptomatic and 19 had generalized lymphadenopathy.

Stage II. Herpes zoster (HZ) was the most commonly occurring infection (22/42) and 90% had a multidermatomal distribution. Other presenting features at this stage were loss of less than 10% of body weight (9/42) and recurrent cutaneous and mucocutaneous bacterial and viral infections (11/42).

Stage III. Weight loss of more than 10% of body weight was found in 12 out of 20 HIV seropositive IDUs who were in stage III. Fever for more than one month (1/12), intermittent diarrhoea and HZ were identified as associated problems. Diarrhoea persisted for more than one month in 6 of them and 2 out of 20 had pulmonary tuberculosis.

Stage IV. Out of 13 people in stage IV, 4 presented with extrapulmonary tuberculosis, 3 with cryptosporidial diarrhoea, 1 with herpes simplex and 5 others who were

TABLE I. Proportion, age and duration of injecting habit of HIV seropositive IDUs at different stages of infection

Stage	n (%)	Mean (SD) age in years	Mean (SD) duration of injecting habit in years
I	56 (43)	25 (4.8)	4 (3.3)
II	42 (32)	27 (5.6)	6 (2.9)
III	20 (15)	28 (5.3)	7 (3.4)
IV	13 (9.9)	29 (4.9)	7 (3.4)

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TABLE II. Sensitivity, specificity and positive predictive value of various clinical features

Clinical feature	HIV positive (n=131)	HIV negative (n=23)	p value	Sensitivity	Specificity	Positive predictive value
Herpes zoster in last 3 years	27	0	0.008	21	100	100
Oral thrush	7	0	0.31	5	100	100
Pruritic papular eruptions	14	1	0.31	11	96	93
Lymphadenopathy	29	4	0.42	22	83	88
Jaundice	13	1	0.35	10	96	93

bed ridden for more than half the day had extreme cachexia. Two of these patients never came to hospital and died at home.

The value of different clinical manifestations

The clinical manifestations encountered during the survey were recorded irrespective of their HIV status. As most of the patients studied were suffering from diseases coming under minor signs of the WHO clinical definition⁴ of AIDS, only those symptoms and signs were looked for which served as clinical markers for HIV infection. Jaundice was common as were HZ and oral thrush (Table II). None of the patients had recurrent HZ. Three patients out of 7 suffering from oral thrush also had associated dysphagia indicating oesophageal infection. One of these also had a pneumothorax secondary to pulmonary tuberculosis. Seven out of 13 HIV seropositive patients with jaundice were found to be infected with hepatitis B.

DISCUSSION

India is passing through the early phase of an AIDS epidemic. While in the other states HIV occurs mostly in relation to infected blood transfusion and heterosexual transmission, the northeast is affected severely by intravenous drug use related HIV.

Most of the seropositive IDUs studied were in the early stages of infection and although it may be too early to test the sensitivity and specificity of the WHO clinical definition of AIDS,⁴ we attempted to do this. Jaundice was also included because it occurred frequently. Oral thrush, HZ and pruritic papular eruptions showed a high specificity and positive predictive value for HIV among IDUs. Oral thrush has previously been identified among IDUs to be a predictor of progression from generalized lymphadenopathy to AIDS.⁵

Data on clinical manifestations among HIV seropositive IDUs are scarce in India. One hospital based study designed to diagnose neurological AIDS had only 7 IDUs among 132 HIV seropositive patients.⁶ The AIDS dementia complex, aseptic meningitis, acute encephalopathy, neurotuberculosis, cryptococcal meningitis, cerebral toxoplasmosis and herpes simplex encephalitis were the illnesses found but no specific reference was made to the symptoms and signs in IDUs.

The distribution of HIV seropositive (n=131) and seronegative (n=23) IDUs found during our survey (Table II) was similar to our recent findings of an 80% HIV seroprevalence (unpublished data, Indian Council of Medical Research Unit, Imphal) among residents of different detoxification centres at Imphal. A high positive predictive value for jaundice among IDUs in our study could probably

be explained by the use of unsterile needles which puts them at risk of contracting viral hepatitis.

The incidence of tuberculosis among HIV seropositive IDUs with latent tuberculosis in New York City was found to be 80 per 1000 persons per year (95% confidence interval 25 to 133).⁷ Other studies are needed in developing countries as twice the number of new tuberculosis cases have been projected when the prevalence of HIV infection reaches 13% in adults.⁸ The existence of the dual problem of tuberculosis and HIV among IDUs in Manipur is on record.^{9,10} A study on tubercular inpatients has indicated that this problem of dual infection exists in other social groups as well. Seventeen out of 148 (11%) patients at a tuberculosis hospital were IDUs¹⁰ and in the present survey we also found that both pulmonary and extrapulmonary tuberculosis occurred among those who were HIV seropositive. A study of the types of prevalent mycobacteria in this area, their sensitivity to different antitubercular drugs and the clinical course is needed because life-threatening infection with *Mycobacterium avium-intracellulare* among IDUs and homosexuals has been found in some studies.¹¹

The inadequate diagnostic facilities in developing countries makes it important to identify easily recognizable clinical markers of HIV disease. Herpes zoster in young adults, pruritic papular eruptions, oral candidiasis and jaundice have been found to be such useful markers. Hepatitis B was responsible for a large proportion (50%) of patients with jaundice but lack of detection facilities for other viruses causing hepatitis did not allow further investigation.

Prospective follow up and similar studies in other communities might tell us more about the usefulness of major signs⁴ for defining clinical cases of AIDS. Opportunistic infections such as tuberculosis, cryptosporidiosis, candidiasis, cytomegalovirus and cryptococcus neoformans¹²⁻¹⁵ have been encountered in HIV in India but data on clinical manifestations among HIV seropositive IDUs are rare. We hope that our findings help in a better understanding of the problem especially when there are reports of a considerable rise^{16,17} in the number of IDUs in metropolitan cities such as Madras and Calcutta.

ACKNOWLEDGEMENTS

We thank the personnel of the detoxification-cum-rehabilitation centres of Imphal—New Life, Life Line, Kripa, Dawn, New Hope and Light-house—for their active assistance and encouragement in conducting this study. We are grateful to Ms Chingzaning Hngzo, Ms L. Bijaya and Mr N. Yaima Singh—social workers of the Indian Council of Medical Research Unit, Imphal, Manipur for rendering counselling support and Mr B. Manna, Epidemiology Division, National Institute of Cholera and Enteric Diseases, Calcutta for statistical assistance.

Funding for this study was obtained from an ICMR grant for extramural projects.

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Obituaries

Many doctors in India practise medicine in difficult areas under trying circumstances and resist the attractions of better prospects in western countries and in the Middle East. They die without their contributions to our country being acknowledged.

The National Medical Journal of India wishes to recognize the efforts of these doctors in a new section 'Obituaries'. We invite short accounts of the life and work of a recently deceased colleague by a friend, student or relative. The account in about 500 to 1000 words should describe his education and training and highlight the achievements as well as the disappointments. A photograph should accompany this article.

—Editor