

A STUDY OF PSYCHIATRIC MANIFESTATIONS OF PHYSICALLY ASYMPTOMATIC HIV - I SEROPOSITIVE INDIVIDUALS

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ABSTRACT

Neuropsychiatric disorders are common both secondary to the complications of immune suppression and as direct effects of HIV on the brain. A high prevalence of psychiatric disorder is reported both in physically asymptomatic and symptomatic persons. A thorough search was made in MEDLAR for the research literature available in the field of neuropsychiatric manifestations of AIDS. There is paucity of literature particularly in India and to be more specific in asymptomatic AIDS individuals, hence this study is intended to fill up the lacuna. The findings of this study show that the prevalence rate of psychiatric manifestations is 90% in HIV positive individuals and 33% in HIV negative group. This rate is significantly high though they are not suffering with physically disabling symptoms. So, the coping mechanisms and defence mechanisms in an individual who acquired HIV infection should be assessed and the significance of counselling before screening, plays a major role in the management of asymptomatic positive and negative individual.

Key words : Psychiatric manifestations, physically asymptomatic, HIV-I seropositive

Neuropsychiatric disorders are common, both secondary to the complications of immune suppression and as direct effects of HIV on the brain. Lishman (1998), reported behavioural manifestations which included lethargy, social withdrawal and marked psychomotor slowing which would be mistaken for depression. Some cases, indeed, failed to show systematic feature of AIDS right up to the time of death (Navia & Price, 1987). Perry and Jacobsen (1986) described several patients who presented with acute psychosis resembling schizophrenia, acute paranoid disorder, and mania or secondary depression. A high prevalence of psychiatric disorders is reported both in physically asymptomatic and symptomatic persons. Longer-lasting psychiatric disorder may emerge during the asymptomatic or symptomatic stages of infection. But it is uncertain whether this is common inpatients with other serious medical conditions (King, 1989, 1993). Psychiatrist should

be involved in planning services for AIDS patients. They may provide counselling and symptomatic treatment for neuropsychiatric complications (Michael et al. 1996). A thorough search was made in MEDLAR for the research literature available in the field of neuropsychiatric manifestations of AIDS. There is paucity of literature particularly in India and to be more specific in asymptomatic AIDS individuals, hence this study is intended to fill up the lacuna.

The present study was undertaken with the aim "to compare the psychosocial profile and the pattern of psychiatric morbidity between seropositive and seronegative or other sexual transmitted diseased patients".

MATERIAL AND METHOD

This study was conducted in the STD and AIDS counselling cell, Andhra Medical College and King George Hospital, Visakhapatnam, sixty

individuals consecutively attending for STD screening and HIV-ELISA test were taken up for the study. Informed consent was taken and was divided into two groups of 30 each respectively. **Group I** : 30 patients who were twice positive for ELISA tests with different kits and they are aware of their test results atleast in the last one year to one month duration.

Group II : 30 patients with present and past history of any sexually transmitted diseases other than HIV.

Each of the individuals from the two groups was subjected to a structured proforma and 30 item General Health Questionnaire (GHQ) was administered (Goldberg, 1972). Those who scored 6 and above were considered and diagnosed as per ICD-10 criteria (WHO, 1992). The Hamilton Rating Scale for Depression (HDRS) and the

Hamilton Anxiety Rating Scale (HARS) were administered to evaluate the severity of depression and anxiety. All individuals (both sexes) were taken up for the study. The individuals with past history of psychiatric illness and physical illness were excluded from the study.

RESULTS

In the two groups the mean age of the Group I, HIV-I sero positive is 30.7 years with a standard deviation of 6.3 years. Whereas in the Group II, HIV sero negative but positive for any other sexually transmitted disease the mean age is 29.6 years with a standard deviation of 8.2 years. In both the groups majority of patients fall in the age group of 21-30 years. There are more males as compared to the females in HIV

TABLE 1
SOCIO DEMOGRAPHIC VARIABLES

	HIV positive group I (N=30)				STD positive group II (N=30)			
	Male (N=18)		Female (N=12)		Male (N=21)		Female (N=9)	
<u>Age (in years)</u>	N	%	N	%	N	%	N	%
14-20	-	-	03	25	02	9.5	01	11.2
21-30	09	50	05	41.7	13	61.90	6	66.6
31-40	08	44.4	04	33.3	05	23.8	2	22.2
41-50	01	5.6	--	--	01	4.8	--	--
Between Male to Male : $X^2 = 1.64$, NS; Between Female to Female : $X^2 = 8.82$, $p < 0.01$								
	N		%		N		%	
<u>Marital status</u>								
Married men	11		36.7		14		46.7	
Married women	08		26.7		09		30	
Unmarried men	07		23.3		07		23.3	
Unmarried women	04		13.3		--		--	
Between Married Men & Women : $X^2 = 1.65$, NS; Between Unmarried Men & Women : $X^2 = 1.38$, NS								
<u>Educational status</u>								
Below 10th class	19		63		26		87	
10th to 12 class	07		23		04		13	
Above 12th class	04		14		--		--	
$X^2 = 1.4$, NS								
<u>Domicile</u>								
Urban	12		40		08		27	
Rural	18		60		22		73	
$X^2 = 11.8$, $p < 0.001$								
<u>Employment status</u>								
Labourers	15		50		12		40	
Businessmen	06		20		08		27	
Students	05		17		07		23	
Truck drivers	04		13		03		10	
$X^2 = 0.46$, NS								

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sufferers. In STD group percentage of females is more than the males (Table 1) The married men and women are more affected in both the groups than unmarried men and women. Among married HIV positive couples, three were referred from paediatric department as their children, were found to be suffering with HIV/AIDS disease. It shows that the HIV infection is more in the group with educational status below 10th class and STD sufferers were still higher in the same group. Above 12th class, there were no STD positives, but HIV positives were 14% (Table 1).

Both HIV as well as STD sufferers were more in the people who are coming from rural areas (Table 1). The employment status in HIV as well as STD positives, the major group was labourers (Table 1). The patients with GHQ scores six and above in HIV positive & STD positive were 90% and 30% respectively whereas below six scores were 10% and 70% respectively (Table 2).

Psychiatric diagnosis as per ICD-10

TABLE 2
GHQ SCORES

	HIV positive group I (N=30)		STD positive group II (N=30)	
	N	%	N	%
Six & above	27	90	09	30
Below six	03	10	21	70

$X^2 = 9.89, p < 0.001$

TABLE 3
PSYCHIATRIC DIAGNOSIS

ICD-10 diagnosis	HIV positive group I (N=27)		STD positive group II (N=09)	
	N	%	N	%
Adjustment disorders (F43.2)	13	48.1	--	--
Brief depressive reaction (F43.20)	01	3.7	04	44.5
Mixed Anxiety and depressive reaction (F43.22)	09	33.3	05	55.5
With predominant disturbance of other emotions (F43.23)	03	11.1	--	--
Depression episode (F32.0)	11	40.7	--	--
Mild depressive episode without somatic syndrome (F32.00)	04	14.8	--	--
Moderate depressive episode without somatic syndrome (F32.10)	05	18.5	--	--
Moderate depressive episode with somatic syndrome (F32.11)	02	7.4	--	--
Substance abuse Uncomplicated (F1X-00) Acute intoxication due to use of alcohol (F10.0)	03	11.2	--	--
Total	27	90	09	33.3

criteria in HIV positive and STD positive was as follows : 3 patients (48%) showed adjustment disorders (F43.2), 11 patients (40%) had depressive episode (F32.0), mixed anxiety and depressive reaction (F43.22) was seen in 9 patients (33%), moderate depressive episode without somatic syndrome (F32.10) was seen in 5 patients (18%) and 4 patients (14%) had mild depressive episode without somatic syndrome (F32.0). Three patients each (11%) had mixed anxiety and depressive reaction with predominant disturbance of other emotions and substance abuse uncomplicated, acute intoxication due to use of alcohol (F10.0). Moderate depressive episode with somatic syndrome (F32.11) was seen in 2 patients (7%) in HIV positive, whereas 4 patients (45%) showed brief depressive reaction (F43.20) and 5 patients (55%) had mixed anxiety and depressive reaction (F43.22) in the STD positive (Table 3). Evaluation of anxiety on Hamilton Anxiety Rating Scale in HIV positive, severe in 3 patients (11%), moderate in 9 patients (33%) and mild in 1 patient (4%), whereas in STD positive, moderate in 5 patients (55%) and mild in 4 patients (45%) respectively. Mild to moderate degree of depression was seen in 3 patients (11%) and 2 patients (22%) as per Hamilton Depression Rating Scale in HIV positive.

DISCUSSION

The study design was similar to the one adopted by Mario *et al.* (1994) in a WHO sponsored multicentric study on AIDS studying sociodemographic findings. Venkoba Rao (1991) had clinical and behavioural study of HIV infected subjects comparing with STD subjects. The total samples of 60 subjects consisted of 30 subjects in each group. In group I there were 18 males and 12 females and in group II, 21 males and 9 females respectively (Table 1). The ages of the subjects ranged from 18 to 50 years with more than 53% falling in the range from 21-30 years, 46.7% in HIV seropositive and 60% in STD positive respectively (Table 1). The asymptomatic HIV subjects in the range of 21-30 years are 14, of the total 30 subjects comprising of 46.7% in our study, which is less than the observed figure of 77% by National AIDS Control Organisation (1995), and the observation of the WHO multicentre neuropsychiatric AIDS study centres cross sectional phase I found by Mario *et al.* (1994).

There was no statistical significance when male to male HIV positive and STD positive were compared, whereas there was statistical significance when female to female was compared. This is because of the fact that married male who were HIV positive were asked to bring their spouses for HIV testing. Hence the statistical significance is observed. In the first and second groups, there was higher rural distribution, 60% from HIV positive and 73% from STD positive. Married men were 36.7% in HIV positive and 46.7% in STD positive group and married women were 26.7% in HIV positive and 30% in STD positive group. Unmarried men and women were less in both groups being 23.3% in HIV positive and nil in STD positive groups. There is no statistical difference among the groups in respect of marital status (Table 1). The level of education showed that the subjects were from below 10th class 63% and 87% in group I and group II respectively and only 14% were above 12th class level in HIV positive. The mean

years of education in Mario *et al.* study (1994) ranged from 7.1 to 13.6 across the six centres. In our study the mean educational period was 7.8. There is no statistical difference among the groups in respect of education status (Table 1). There is statistically significant difference on urban-rural distribution among the groups (Table 1). This reflects the trend of rural patients attending the hospital from the rural area for the special services including STD evaluation. The employment status among the groups were compared although there was no statistical difference among the groups in respect of employment status (Table 1), the labourers were more affected in both the groups 50% and 40% respectively. Businessmen and students were almost equally seen in both the groups 20% and 27% businessmen, 17% and 23% students in each of the group I and group II. This shows that labourers, businessmen and students are at higher risk for both HIV and STD infections.

Fischi *et al.* (1987) found in their study that there was past history of gonorrhoea and syphilis in HIV seropositive subjects. The current VDRL status with more than 84% being non-reactive in our study subjects. The GHQ scores 6 and above was found 90% in HIV positive group and 30% in STD positive group respectively. This shows that there is high psychiatric morbidity among the HIV positive group. Perry and Jacobsen (1986), Brown and Rundell (1990 and 1993), Jacob *et al.* (1991), Pergami *et al.* (1994), Catalan (1995) have found high psychiatric morbidity in their studies.

The most frequent psychiatric illness found in HIV seropositive subjects next to adjustment disorder is depression. Our study revealed significantly higher depression and anxiety in HIV seropositive subjects. In our study severe anxiety was seen in 11%, whereas moderate anxiety was seen in 33% and mild anxiety in 3% (Table 3). Jacob *et al.* (1991) had seen adjustment disorder and neuropsychiatric disorders are common in HIV positive subjects, behavioural manifestations, lethargy, social withdrawal and marked psychomotor slowing is

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more commonly seen among them. Atkinson et al. (1988) had seen generalised anxiety disorder 39%, major depression 3% and alcohol or non-opium drug abuse in 39% subjects. Obvious pathological fear of AIDS, often associated with delusions of having the disease, has been reported by a number of workers; Schwartz (1983) and Freed (1983) were the earliest to publish findings, the former describing the condition as 'AIDS-panic', occurring in association with obsessive and paranoid personalities, the latter describing it as 'AIDophobia'. Nomenclature varies between authors; Miller and Green (1986) applies the term 'worried-well' to patients who perceive themselves to be at high risk of developing AIDS but who are in fact quite well in that they show no objective signs of AIDS-related illness. Some have physical symptoms of anxiety which mimic the prodromal features of AIDS ('pseudo-AIDS'; Miller et al., 1985). Frolkis (1986) uses the term 'AIDS anxiety' in relation to three patients of his who developed an intense fear of AIDS with hypochondriac delusions that they were suffering from the disorder, the onset in all three cases occurring shortly after guilt-laden sexual encounters. Other similar cases have been reported by O'Brien and Hassanyeh (1985), Jenike (1986), Valdiserri (1986), Windgassen & Soni (1987), Jacob et al. (1987), who use the term 'AIDS-induced psychogenic state'. In the present study we have seen mild and moderate anxiety in STD positive subjects in 44.5% and 55.5% respectively. Among STD sufferers 33% has shown significant GHQ scores, because of their suspiciousness that they may contact HIV because of their promiscuity inspite of repeated assurance and screening for HIV proved as seronegative. However, with increasing time the reported level of depression and anxiety dropped to the same level and this may be because they persist in being at risk of HIV infection (Graham et al., 1997). In our study, we have seen severe depression in none, moderate depression in 22% and mild depression in 11% in HIV seropositives. But depression was seen in none of the controls

i.e. STD positive group (Table 3).

To conclude this study shows the prevalence rate of psychiatric manifestations in 90% in HIV positive individuals and 33% in control group. This rate is significantly high though they are not suffering with physically disabling symptom. So, the coping mechanisms and defence mechanisms in an individual who acquired HIV infection should be assessed and the significance of counselling before screening, plays a major role in the management of asymptomatic positive and negative individual.

The findings of this study need to be replicated in larger number of patients. Follow up studies can throw further light on other relevant parameters like course and prognosis.

REFERENCES

Atkinson, J., Grant, I., Kennedy, C., Richman, D., Spector, S. & McCutchan, A. (1988) Prevalence of psychiatric disorders among men infected with human immunodeficiency virus. A controlled study. *Archives of General Psychiatry*, 45, 859-864.

Brown, G.R. & Rundell, J.R. (1990) A prospective study of psychiatric morbidity in HIV - seropositive women without AIDS. *General Hospital Psychiatry*, Jan. 12, 1, 30-35.

Brown, G.R. & Rundell, J.R. (1993) A prospective study of psychiatric aspects of early HIV disease in women. *General Hospital Psychiatry*, May, 15, 3, 139-147.

Catalan, J. (1995) Psychological interventions in infection with the human immunodeficiency virus. *British Journal of Psychiatry*, July, 167, 1, 104-111.

Fischi, M.A., Richman, D.D. & Grieco, M.H. (1987) The efficacy of azidothymidine (AZT) in the treatment of patients with AIDS and the AIDS related complex. A double blind placebo controlled trial. *New England Journal of*

Medicine, 317, 185-191.

Freed,E. (1983) AIDophobia. *Medical Journal of Australia*, 479.

Frolkis,I.P. (1986) AIDS anxiety-new faces for old. *Postgraduate Medicine*, 79, 265-276.

Goldberg,D.P. (1972) General Health Questionnaire. *Psychological Medicine*, 9, 139-146.

Graham,B., Simon,B., Gazzard,B. & Nick,P.(1997) HIV and AIDS. *Your Questions Answered*, Chapter 10, 79-93.

Jacob,K.S., Eapen,V., John,J.K. & John,T.J. (1991) Psychiatric morbidity in HIV infected individuals. *Indian Journal of Medical Research*, 93, 62-66

Jacob,K.S., John,J.K., Verghese,A. & John,T.J. (1987) AIDS Phobia. *British Journal of Psychiatry*, 150, 412-413.

Janika,M.A. (1986) Disabling fear of AIDS responsive to imipramine. *Psychosomatics*, 27, 143-144.

King,M.B. (1989) Psychological states of 192 outpatients with HIV infection and AIDS. *British Journal of Psychiatry*, 154, 237-242.

King,M.B. (1993) AIDS. HIV and Mental Health, 329-333. Cambridge : Cambridge University Press.

Lishman,W.A. (1998) Organic Psychiatry. *The Psychological Consequences of Cerebral Disorder*, Edn. 3rd, Chapter 8, 324-325, London: Black Well Science.

Mario,Maj., Paul,Satz. & Janssen,R. (1994) WHO National AIDS Control Organisation. 'Prevention and Control of HIV and AIDS' - Manual 4. Neuropsychiatric AIDS study Cross Sectional Phase II, neuropsychological and neurological findings. *Archives of General*

Psychiatry, 51, 51-61.

Michael,G., Dennis,G., Richard,M. & Phulip,C. (1996) *Oxford Textbook of Psychiatry*. Oxford : Oxford University Press.

Miller,D. & Green,J. (1986) Counselling for HIV infection and AIDS. In : *Clinics in Immunology and Allergy, AIDS and HIV Infection*, (Ed.) Pinching,A.J., 5, 661-683.

Miller,D., Green,J., Farmer,R. & Carroll, G. (1985) A 'Pseudo-AIDS' syndrome following fear of AIDS. *British Journal of Psychiatry*, 146, 550-551.

NACO (1995) National AIDS Control Organisation, Ministry of Health and Family Welfare, Government of India. *Monthly Update on HIV Infection in India*, 30, 11-95.

Naiva,B.A. & Price,R.W. (1987) The acquired immunodeficiency syndrome dementia complex as the presenting or sole manifestations of human immunodeficiency virus infection. *Archives of Neurology*, 44, 65-69.

O'Brien,G. & Hassanyeh,F. (1985) AIDS Panic : AIDS induced psychogenic states. *British Journal of Psychiatry*, 146, 91.

Perry,S.W. & Jacobsen,P. (1986) Neuropsychiatric manifestations of AIDS - spectrum disorders. *Hospital Community Psychiatry*, 37, 135-142.

Pergami,A., Gala,C., Burgess,A., Invernizzi,G. & Catalan,J.(1994) Heterosexuals and HIV disease : a controlled investigation into the psychosocial factors associated with psychiatric morbidity. *Journal of Psychosomatic Research*, May, 38, 4, 305-313.

Schwartz,R. (1983) AIDS panic. *Psychiatry News*, Aug. 17.

Valdiserri,E.V. (1986) Fear of AIDS : implications for mental health practice with

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reference to ego-dystonic homosexuality.
American Journal of Orthopsychiatry, 56, 634-638.

Venkoba Rao,A., Swaminathan,R. & Venkataram,M.K. (1991) A clinical and behavioural study of HIV infected subjects. A comparison with STD subjects. *Indian Journal of Psychiatry*, 33, 2, 95-103.

Windgassen,E. & Soni,S.D. (1987) AIDS Panic. *British Journal of Psychiatry*, 151, 126-127.

World Health Organization (1992) The ICD-10 Classification of Mental and Behavioural Disorders. *Clinical Descriptions and Diagnostic Guidelines*, Geneva : WHO.

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