

16. NEUROPSYCHIATRIC MANIFESTATIONS

Invasion of the central nervous system by HIV occurs soon after infection takes place. The management of neurologic manifestations of HIV infection is discussed in the previous chapter. In this chapter the neuropsychiatric manifestations are discussed. It is important that a holistic approach is followed when managing persons with HIV associated organic mental disorders (HIV-OMD).

16.1 General principles of management

The following general principles should be kept in mind when managing HIV infected persons with OMD:

- Antipsychotic drugs usually tranquillize without impairing consciousness and without causing paradoxical excitement. Chlorpromazine has pronounced sedative effects, moderate anticholinergic effects and extrapyramidal side effects. Trifluoperazine and haloperidol have fewer sedatives and anticholinergic effects, but more pronounced extrapyramidal effects. Prescribing of more than one antipsychotic or antidepressant drug for the same indication is not recommended.
- Attempts should be made to involve the patient's family, partner and close friends in the management of the patient. This helps everybody cope with the illness and with the impending loss of a friend or family member.
- Educating the patient on the mode of transmission of HIV infection, natural history and complications of infection, safer sexual behaviour and practices, and treatment options, provides the patient with the opportunity to make informed decisions about their lives.
- Confidentiality should be assured and maintained and stigmatization and discrimination should never be practiced.
- Education of caregivers and group discussions among caregivers should be encouraged.

- Patients should be advised on leading healthy lifestyles, and on good and safe nutrition, taking adequate rest and exercise, and minimizing the use of alcohol and psychoactive substances.

16.2 HIV-negative worried well clients

Often patients present as they are worried that they may have become infected. Such patients may have engaged in risky behaviour while others believe that they may have become infected through toilet seats, contact with a co-worker, or they are obsessed with the fact that they are infected. Such patients may have subjective mental slowing, forgetfulness, apathy, lethargy, social withdrawal, and personality change. A thorough psychiatric history and mental examination is needed to elicit any psychiatric disorder at this earlier stage or to rule out other physical conditions. The “worried well” may present with dysphoria, panic attacks, free-floating anxiety, phobic symptoms and hypochondriasis. The diagnosis may be:

- Panic Anxiety Disorder (PAD),
- Generalised Anxiety Disorder (GAD),
- Depression,
- Obsessive Compulsive Disorder (OCD),
- Hypochondriasis

16.3 Psychological reactions to knowing ones HIV-positive result

Patients who have learnt that their blood test result for HIV infection is positive may react in a number of different ways:

- Denial and disbelief
- Hopelessness and uncertainty
- Intense anger
- Shame
- Guilt and blame

In addition they may develop symptoms and signs of anxiety, such as, palpitations, tremors of hands, restlessness, dyspnoea, sweating and fear,

or depression, such as, depressed mood, fatigue, forgetfulness, loss of interest in daily activities and hopelessness, together with suicidal ideation, abandonment and social isolation. It is important to make a diagnosis and manage the patient accordingly. Usually many of these syndromes develop in patients who have not been subjected to thorough pre-test counseling.

16.3.1 Management

Non-drug related treatment

Psychotherapy and counseling is crucial at this stage. It can never be over-emphasised that all patients that are to be tested for HIV infection are adequately and professionally pre-test counseled. Patients should be reassured and made to understand the nature of the disease and its short and long term effects and the various different treatment options should be explained. Patients with marked symptoms and suicidal ideation will benefit from referral to a mental health worker.

Treatment of anxiety						
Drug	Codes		Adult dose	Route	Frequency	Duration
Lorazepam	B	E	1 – 2 mg	PO	At night	2 weeks
OR						
Oxazepam	B	E	15 – 30 mg	PO	At night	2 weeks

- All patients should also receive psychotherapy for impulse control
- Heavy sedation is not necessary
- Use for short-term only, i.e., less than 3 weeks

Alternative Treatment

Alternative treatment of anxiety						
Drug	Codes		Adult dose	Route	Frequency	Duration
Amitryptiline	B	E	25 – 50 mg	PO	OD	Long term
OR						
Imipramine	A	E	25 – 50 mg	PO	OD	Long term

- **Note:** This is indicated only for long- term therapy

Treatment of depression						
Drug	Codes		Adult dose	Route	Frequency	Duration
Amitryptiline	B	E	25 – 50 mg	PO	OD	Long term
OR						
Imipramine	A	E	25 – 50 mg	PO	OD	Long term

- **Note:** The starting dose of antidepressants is 25 mg/day. The dose for HIV-OMD should be about one quarter of that normally used in adults and the dosage should be raised in small increments every 2 to 3 days until a therapeutic effect is reached. Imipramine is indicated only when sedation is not needed.

Alternative treatment of depression						
Drug	Codes		Adult dose	Route	Frequency	Duration
Fluoxetine	S	N	10 – 20 mg	PO	OD	Long term

- **Note:** Electroconvulsive therapy (ECT) should be considered if a neurological examination confirms the absence of raised intracranial pressure or space-occupying lesions.

16.4 Psychotic symptoms in HIV-associated organic mental disorder

Patients with HIV infection may present with a broad range of symptoms indicative of CNS involvement other than those that are caused by opportunistic infections. Patients may present with:

- **Mania:** delusions of grandiosity elated mood, flight of ideas, pressure of speech and inflated self esteem.
- **Schizophrenia:** Delusion of persecution, blunted affect, incoherent speech, bizarre behaviour (stripping naked in public, destruction of

property), auditory/ visual hallucination, agitation, aggression and confusion

- **Psychotic depression:** Delusion and auditory hallucination i.e., depressed mood, insomnia, lack of concentration, fatigue and loss of interest in daily usual activities.

Patients should have biomedical investigations (e.g., FBC, serum electrolytes), social investigations (e.g., a social worker to visit the house and collect more information about the patient's relationships) and psychological investigations (e.g., IQ).

16.4.1 Management

Non-drug related treatment

Psychotherapy and counseling is crucial at this stage. Patients should be reassured and the nature of the illness should be explained together with treatment options. The assistance of family members should be secured. Patients with marked symptoms need to be managed by specialists.

Drug related treatment

Treatment of organic mental disorder						
Drug	Codes		Adult dose	Route	Frequency	Duration
Chlorpromazine	C	V	25 – 100 mg	PO	OD	Long term
OR						
Thioridazine	B	E	50 – 100 mg	PO	OD	Long term
OR						
Haloperidol	A	V	1.5 to 3 mg	PO	OD	Long term

- **NOTE:** Lower-potency neuroleptics may be more effective in producing acute sedation and control grossly disorganized behaviour or to reduce delusions and hallucinations. The dose should start small and be increased gradually to avoid patient developing extrapyramidal effects and neuroleptic malignant syndrome. HIV-

infected patients are particularly liable to develop adverse effects of the drugs. Therefore, both initial and maintenance dosages should be lower than usual.

Alternative Therapy

Alternative treatment of depression						
Drug	Codes		Adult dose	Route	Frequency	Duration
Trifluoperazine	A	E	5 – 10 mg	PO	OD	Long term
OR						
Lithium carbonate (for Mania)	S	N	250 – 500mg	PO	OD	Long term
OR						
Carbamazepine (for Mania)	S	N	200 – 400mg	PO	OD	Long term

- **Caution:** Mood stabilizing drugs such as lithium carbonate require monitoring through regular plasma drug levels. The level should be maintained at 0.6 - 1.2 mmol/L and thyroid function tests should be done initially.

16.5 AIDS dementia complex and HIV encephalopathy

Patients with HIV encephalopathy and AIDS dementia present with a variety of mental symptoms. These include:

- Subtle mood and personality changes
- Poor concentration
- Disorientation and confusion
- Social withdrawal
- Psychomotor slowing, apathy and distractibility
- Memory impairment

A progressive subcortical dementia, that is typical of AIDS encephalopathy, without focal neurological signs is the typical presentation. Investigations should include a CT scan of the brain, and social, psychiatric and biomedical investigations. As the dementia progresses, the patient may present with: muteness, incontinence of urine, seizures and coma, and death follows.

16.5.1 Management

Drug related treatment

Alternative treatment of ADC						
Drug	Codes		Adult dose	Route	Frequency	Duration
Haloperidol	A	V	5 – 10mg	IM	OD	Starting dose
THEN						
Haloperidol	A	V	1.5 – 3mg	PO	OD	Long term
OR						
Chlorpromazine	C	V	25 – 50mg	IM	OD	Starting dose
Chlorpromazine	C	V	100 – 200mg	PO	OD	Long term

- **NOTE:** Haloperidol 1,5 mg/day is used to control grossly disorganized behaviour or to reduce delusions and hallucinations. This dose may be increased gradually to avoid the development of extrapyramidal effects and neuroleptic malignant syndrome. It is the best drug to treat a delirious patient.

Alternative treatment of depression						
Drug	Codes		Adult dose	Route	Frequency	Duration
Trifluoperazine	A	E	1 – 5 mg	PO	BID	Long term
OR						
Sulpiride	S	E	100 – 200mg	PO	OD	Long term

NOTE:

Avoid heavy sedation in a delirious patient. This will allow periodic assessment of the patient. Refer all delirious patients for specialist opinion.

16.6 Social Services Support

Patient and their carers may need assistance from the AIDS levy and Social Welfare.