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AIDS IN INDIA AND HOMOEOPATHY

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Aquired Immuno-deficiency Syndrome (AIDS) according to the available information, is caused by a retro-virus identified as Human Immuno-deficiency Virus (HIV), and presents a variety of manifestations, from asymptomatic infection to severe state immuno-deficiency and life threatening infections and malignant diseases.

Introduction

AIDS was first identified in 1981, since then it has become a global problem that poses a serious threat to humanity within a few years. Previously WHO had estimated inbetween 500,000 patients. But recently WHO says there may be 8 million to 10 million AIDS infected people around the world. The revised estimate shows worsening of epidemic in Sub-Saharan Africa and in Asia. It is very significantly spreading in Asia where number of infected persons has risen virtually from '0' to 500,000 in the past two years.

In India till 30th June '90, a total no. of 495,787 persons were screened. Among the high risk group 4,037 were tested positive by using ELISA kits. A total no. of 2,604 cases were confirmed through Western Blot test. There has been a total no. of 48 AIDS full blown cases in India, including those of 12 foreigners. Except 12, all have died. The above figures were far below than the WHO predictions. There are 2.5 lakhs HIV cases in India as of today and there would be at least 60,000 AIDS patients by 1995, even though no new HIV infections have occurred after 1989.

Inspite of intensive global research efforts there are many gaps in understanding of HIV and AIDS, no curative therapy or effective vaccine has been evolved as yet. There is panic in the society regarding the treatment of AIDS. The scientists of different fields do not believe that disease is not beyond the curative power of science. Recently after reviewing the existing policies and problems in India, ICMR has formulated a policy regarding the care of HIV infected persons along with prevention of accidental infection.

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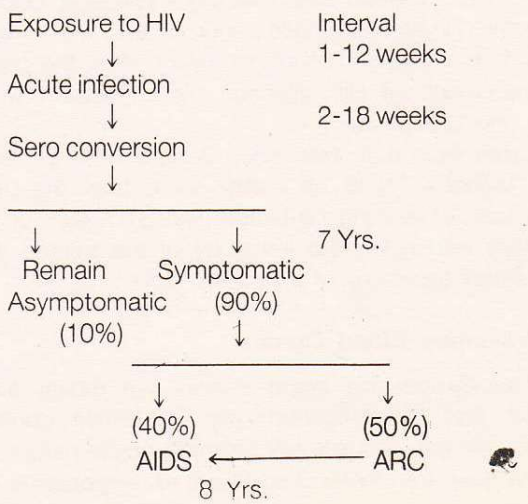
HIV Infection

HIV-Human Immuno-deficiency virus is a retrovirus responsible to cause AIDS in human. The basic structure is similar to that of ordinary virus. Usually viruses contain DNA or RNA. They have the genetic instructions within but the multiplication takes place only inside the host cell. The characteristic of the retrovirus is the presence of enzyme-'reverse transcriptase' by the help of which the RNA is transcribed into DNA and DNA in return carries out further reproductive processes.

In cell-mediated immune response, T-Lymphocytes of WBC have the central role of action. The HIV virus attack the T-4 Lymphocytes (helper cell), on entering the cell it dictates the T-4 cell to produce viruses, the process continues till the cell disintegrates itself. The whole mechanism is a very sophisticated one. The newly produced viruses escape in the blood and attack the other system which is paralysed and the patient develops AIDS. Therefore, all the victims of AIDS suffer from depletion of specific sub-set of T-cells i.e. T-4 cells as a result they fall prey to pathogens (less than 400/cmm).

Course of HIV Infection



Mode of Transmission

1. Sexually—direct—probably through repeated intimate sexual contact with any infected person(s), who may or may not have symptoms at that time.
2. Blood—through the infection of the blood or blood products from an infected person/s (as in sharing the unsterile hypodermic needle).
3. From mother to child either during pregnancy or after the child is born through breast feeding.

Progression from HIV sero-positivity to AIDS over a 7 year period

Years	Rate of Progression	Years	Rate of Progression
1 year	1.5%	5 years	25%
2 years	5%	6 years	30%
3 years	10%	7 years	40%
4 years	15%		

Group of Sero-positive Persons in India

From the epidemiological study in India, it reveals that heterosexual promiscuity has been known to be the major mode of transmission of HIV infection in India. There are various groups under the sero-positive persons as follows—

i) Professional Blood Donors

The persons of this group are socio-economically under the lowest strata and most of them dwell in worst unhygienic conditions even on pavements. They often donate their blood several times in different blood banks under different names giving untraceable addresses and do not inform the blood banks about their earlier donations. Once they are identified as seropositive, it is not possible to donate or sell their blood. As the testing for HIV antibody is the only method by which HIV infected individuals could be identified in asymptomatic period. Unless this screening facility is available throughout the country, the possible transmission of HIV infection by transfusion will not be checked properly.

Apart from that, this group is also liable to develop full blown AIDS at an earlier stage than the others, because of existing co-factors like STD, lack of basic factors influencing the immunity of the person (food, repeated exposure of infections etc).

ii) Voluntary Blood Donors

The seropositive blood donors are mostly literate ones and socio-economically in better condition. Generally they are sexually promiscuous in nature. Very often they are identified suddenly as seropositive while donating the blood during some emergency or accident of their family members or relatives or friends. Initially they are also shocked to know the seropositive result.

This group if treated with homoeopathic medicines from the very beginning with proper reorientation regarding sex habits and supportive awareness, the possibility of improvement is expected. Except a few, most of the persons may be co-operative to the physician. The reorientation of sex habits will be helpful to avoid repeated exposure/repeated infection (also transmission). By virtue of this the progression of disease may be slower.

iii) Recipient of Blood or Blood Products

In India 50% of the blood and 100% of the blood products are available from the professional blood donors. The very first case of AIDS diagnosed in India was secondary to blood transfusion received in USA during coronary by-pass surgery and second case was a haemophilic who had received Factor-VIII imported from USA.

Blood products used for therapeutic purposes can be divided into two groups: the first group includes whole blood and its components like packed red cells, platelets, granulocytes, fresh frozen plasma etc. which are usually prepared by Hospital Blood Banks. The second group consists of protein products derived from plasma which include albumin, fibrinogen, factor VIII, factor IX and various immunoglobulin preparations. These are mostly prepared by the commercial companies by chemical fractionisation of plasma pooled from thousands of donors.

Risk Involved in Various Plasma Fractions Derivatives which are Manufactured in India

A) High risk for AIDS	
i) Fresh Frozen Plasma. ii) Fibrinogen. iii) Anti-Haemophilic Factor	Product must be pre-tested before use.
B Moderate risk for AIDS	
i) Gammaglobulin (I.M. use) ii) I.V. Gammaglobulin. iii) Tetanus Immunoglobulin iv) Rabies immunoglobulin. v) Anti-D immunoglobulin.	The source material must be HIV-antibody free. The production procedure must be very strict to avoid any contamination.
C) No risk for AIDS	
i) Human Albumin. ii) Cryoprecipitate. iii) Thrombin complex.	Pasteurisation for 10 hrs at 60°C.

The Govt. of India has made it mandatory that all the imported blood products should carry an AIDS free certificate. After the detection of HIV antibody in the indigeniously manufactured blood product, the Drug Controller of India (DCI) ordered for cessation of production of all indigeniously manufactured blood products and instructions were issued to withdraw the same from the market. Recently DGHS has issued a strict quality control norms regarding the manufacture of blood products as well as testing facilities extended for it. Now it is the moral responsibility of the commercial companies as well as legal responsibility of DCI to check the faulty production, thereby help in prevention of transmission of HIV infection.

iv) **Prostitutes**

In India the pattern of distribution of AIDS is PATTERN-III i.e. through the international travellers mostly except a few transmissions through blood transfusion during surgery abroad or through imported blood products. The prostitutes are the victim of that and at the same time they are rich source of transmission of HIV infection to their clients. As for instance in Bombay, there are an estimated one lakh prostitutes, out of them 30% have tested positive. On an average each of them entertains 5-6 customers every day then the impact of HIV infection and its spread in the society is tremendous. Recently the Govt. of Tamil Nadu rescued 825 women belonging to Tamil Nadu from Bombay sex-industry. Out of them nearly 500 cases were found HIV seropositive. From this it shows that prostitutes in India are rich source of transmission of HIV infection.

Apart from that the prostitutes are prone to STD (Sexually Transmitted Diseases) as occupational hazards and presence of STD's facilitate the infectivity towards the HIV. And also presence of STD in HIV infected prostitutes act as co-factor and help the person to progress rapidly towards full blown AIDS.

CDC Classification of HIV infection

GROUP-I Acute infection.

GROUP-II Asymptomatic infection.
- a. Normal laboratory findings.
- b. Abnormal laboratory findings.
  Lymphopenia, thrombocytopenia.
  Decreased CD /CD_8.

GROUP-III Persistent Generalised Lymphadenopathy. *Definition*:
Palpable lymphnodes (> 1 cm)
Two or more extrainguinal sites.
Persisting for more than 3 months.
Sub-classification—
- a. Normal laboratory findings.
- b. Abnormal laboratory findings.
  Lymphopenia, thrombocytopenia.
  decreased CD_4/CD_8.

GROUP-IV. Other diseases—

A. Constitutional diseases. Presence of one or more symptoms of
Persistent fever (> 1 month).
Persistent diarrhoea (> 1 month).
Involuntary weight loss (> 10% of base line).

B. Neurologic disease
Dementia.
Myelopathy.
Peripheral neuropathy

C. Secondary infection disease
Diseases listed in the surveillance definition of AIDS.
Other specified secondary infection diseases

D. Secondary Cancers
Kaposi's sarcoma
Non-Hodgkin's lymphoma
Small, nonclevated lymphoma
Immunoblastic sarcoma
Primary lymphoma of the brain

E. Other conditions
Not listed in above categories

Treatment

In AIDS the progressive decline of the immune system and neural function is due to persistent retroviral infection. The opportunistic infections and nervous system affections are major factors contributing to the morbidity and mortality of AIDS patients. At present the modern system of medicine has no effective treatment, only treatment available are experimental. The attempts are made to find out the effective remedy to block the—

i) viral entry into the target cell;
ii) to inhibit activity of the enzyme reverse transcriptase, and
iii) to improve the immune status of the infected person.

Some of the medicines discovered such as Zidovudine (AZT), Foscamet (phosformate) as inhibitor of reverse transcriptase; AL721 as blocks binding to target cells (antibodies against the CD4 receptor); alpha interferon as blocks viral budding; rivavinin which blocks m-RNA to prevent viral protein production etc. but they are partially effective, very expensive as well as highly toxic. Therefore till the effective treatment is available more emphasis should be given on containment of infection through preventive measures.

Certain studies have been undertaken abroad on ARC/AIDS with homoeopathic medicines on the established lines and the initial results are promising

especially in prolonging the survival period and reducing the dependency on toxic drugs of the modern medicines. In India, the Central Council for Research in Homoeopathy has undertaken 'Study and Treatment of AIDS with Homoeopathic Medicines' as per the directive of Govt. of India. The methodology and principle to be adopted in this research study is given below diagrammatically.

Treatment Plan at the Stage of Acute Infection Stage–I.

About 50% of the HIV infected individuals will develop some non-specific symptoms like low grade fever, sweating, lethargy, malaise, headache etc. within 1-12 weeks. These symptoms are very similar to simple fever and the suffering is very negligible. Therefore to exclude the person as HIV infected is rather impossible clinically as well as by the investigations because of negative antibody test. Except this many individuals pass off this stage un-noticed.

Homoeopathic Treatment

As already stressed that this stage is very similar to simple fever and as the antibodies are yet to develop, so the remedies like Arsenicum album, arsenicum iodatum, Eupatorium perfoliatum, Gelsemium, Baptisia, Rhus tox etc. may come in picture. Not only

Diagrammatic Representation of Methodology to be Adopted for Research Study and Treatment of AIDS

	PRINCIPLE	.... Aim & Objective. .... Programme. .... Duration of Study. .... Protocol.	HIV (+) Asymptomatic.	1. Study the person. 2. Select constitutional remedy. 3. Under long follow up	*Target* 1. Arrest of disease process. 2.Continuing the asymptomatic state. 3. Cure (?)
METHODOLOGY	PROCEDURE	Confirmed case HIV sero (+) ve/ ARC/AIDS Through ICMR, Surveillance Centre, Govt. Hospital.	HIV (+) Symptomatic.	1. Study the case. 2. Select the remedy Acute/Chronic/Intercurrent as the case may be. 3. Under long followup.	1. Removal of symptoms with improvement in general condition. 2. Arrest of disease process. 3. Increase the span of life. 4. Cure (?)
	ASSESSMENT	CLINICALLY	*Target* A) Improvement in general condition such as no weight loss, appetite increased, no night fever, no night sweat etc. B) Absence of symptoms.		
		INVESTIGATIONS Virological,	Immunological		
		a) ELISA (+) ve.	Reversal of ELISA.		
		b) Altered T-4/T-8 ratio, ...	Restoration/improvement in the ratio. (Established by absolute count).		
		c) Isolation of HIV from seropositive person.	Absence of virus.		
		d) Opportunistic infection.	Absence of opportunistic infection.		
		e) Reverse transcriptase.	Inhibition of action of reverse transcriptase.		

the acute remedies but even the constitutional remedies based on the individual background may be useful.

Potency

Preferably the lowest or medium potency will be useful. Repetition of doses is required.

Treatment of HIV Seropositive Asymptomatic Persons i.e. STAGE-II

Here the seropositive persons are potently infectious but do not show any symptoms. Most of the asymptomatic carriers are young men and women. According to current estimate they may remain symptom free on an average of a period of 6 years. But this period may differ from person to person depending on the multiple factors played on the immunity/HIV replication. The important co-factors are i) presence of other viral infections like Epstein-Barr-virus, Cytomegalo virus, Hepatitis-B-virus; ii) drugs like-steroids and antimetabolites; iii) presence of STD, iv) malnutrition; v) pregnancy etc. Generally it is presumed that 50% of infected persons will develop full blown AIDS by the end of 10 years. There is every possibility that about 10% of infected persons may not develop the disease at all. Near about 40-50% HIV seropositive persons will suffer from constitutional disease or with minor opportunistic infections as AIDS Related Complex (ARC). They may remain in the same state for a long period or may pass into full blown AIDS.

Important Mental Symptoms in AIDS Patients

People who are exposed to HIV infection manifest severe psychological symptoms. These above symptoms may appear in the victims only subject to duration of illness, hopelessness about recovery, acute painful suffering etc.

1. Persistent depression
2. Nervous irritability
3. Anxiety leading on panic
4. Obssessive preoccupation with illness and physical symptoms
5. Increased use of alcohol and tranquilisers
6. Lack of energy and inability to concentrate
7. Inability to enjoy social and sex life
8. Inability to function normally at home or in office
9. Thoughts of suicide
10. Guilt, shame and sense of lowered esteem

Homoeopathic Treatment

As the homoeopathic treatment strengthens the immune system of the individuals, therefore possibly this stage will be ideal where homoeopathic remedies may be used effectively to restrict the progress of disease and we hope in great extent it would bring seronegative results in due course. Here we have to study every case constitutionally taking into account the individual characters, mental makeup, reaction to physico-thermal conditions, past history of illness, family background, sexual behaviour etc. to select a constitutional remedy. Sometimes a clear-cut single constitutional remedy is difficult to obtain. At this stage use of specific miasmatic remedies may be useful, like Tuberculinum, Syphilinum, Medorrhinum, Psorinum etc.

Potency

As the individual is in the latent state, the selection of potency should be made very carefully. The consitutional/miasmatic remedy should be used in the beginning in 30 or 200 (preferably 200th) potency. Use of higher potency should be only in ascending order after regular follow up of the case otherwise there may be sudden immunological stimulation thereby activating the infected T-4 cells which may cause early development of full blown AIDS. The patient will require long follow up (Minimum 6-7 years) to achieve the target.

During asymptomatic period some time they may suffer from problems which is related or unrelated to HIV infection. For this we have to take some steps for the treatment of the presenting complaints. The remedies may be selected on the presenting picture preferably a remedy acute in nature of cognate group of the principle remedy (so there will be no hinderance or antagonistic relationship). Frequent repetition of lower or moderate potency may be required to combat the condition.

Counselling

All the seropositive individuals require counselling/health education alongwith the family members for reducing the risk of transmission of the disease.

Treatment of HIV Seropositive Symptomatic Persons i.e. STAGE-III & IV

Here the seropositive persons are either in PGL or ARC or Full Blown AIDS, During this symptomatic phase most of the infected persons will develop repeated episodes of the infections between which the patient may return to a more or less normal state. Ultimately some will develop malignancies, whereas others may suffer from neurological disorder.

Homoeopathic Treatment

We have to study the case on conventional lines to find out the medicines as acute, chronic (deep acting constitutional remedy) and intercurrent (Specific miasmatic) one. During this stage of treatment, patient requires close observation i.e. in the hospital. The high potencies should be avoided keeping in view of the

lowered immunity. The acute. i.e. short acting remedy preferably in lower/moderate potency be used during these episodes. And the deep acting remedy/intercurrent remedy in moderate potency to be used during the interval or inbetween the episodes.

When the malignancies have appeared then selected medicines may act as palliation i.e. the suffering will be the least and the patient may even die comparative comfort. In case of neurological dysfunction, the effect of the homoeopathic remedy should be observed carefully.

Remedies for HIV Infection

Only a few important remedies are listed.

Acute infection	ARC/AIDS
Ars. alb, Ars. iod, Baptisia, Bell, Bryonia, Eup. perf, Gelsemium, Merc. sol, Rhus tox.	Aurum met, Ars. alb, Ars. iod, Badiga, Baryta carb, Calc., Calc. fl, Calc. iod, Carbo an, Cistus c, Con., Cyclospo-rin, Kali iod, Kali mur, Lachesis, Lyco
Miasmatic Remedies Aur met, Syphilinum, Medorrhinum Carcinosin Bacilinum Psorinum, Thuja	Merc. sol, Merc. iod, Nit ac, Nux v, Nat mur, Phyt, Rhus tox, Sepia, Silicea, Sulphur, Thuja, Typhoidinum

Ancillary measures

In the advanced stage, the condition of the patient may demand some important ancillary measures. While providing the same, infection control measures should be adopted very rigidly to prevent accidental transmission of HIV infection.

Counselling

The impact of the symptomatic presentation of HIV infection in family and society is tremendous because of social stigma attached to it. The proper counselling will help the patient to accept the facts, understand the real situation, overall they have to learn to cope with it for the rest of life. The counselling to the family members is more important because to accept HIV positive person within the family with love and understanding is difficult due to their own apprehension to disease.

Assessment of the Case

The various investigations as well as clinical assessments are highly essential to diagnose and determine the status of the patient before, during and after the treatment. The first serological test to detect anti-HIV was available only in 1984, prior to this, it was recognised by the presence of opportunistic infections or cancers. The following investigations are useful for the laboratory diagnosis and assessment.

1) **Direct Tests**

i) **Detection of live virus:** This is attempted by culturing the lymphocytes from a suspected person. The essential nutrient like T-Cell growth factor etc. are artificially fed and immunoflourescent technique is adopted to detect the growing virus. But this method is not used for routine diagnosis.

ii) **Detection of viral antigen:** The viral P-24 will be found in the blood stream within 2 weeks of infection and it can be detected by immunoflourescent technique or enzyme immuno-assay technique. The facilities are available in the specialized laboratories and not routinely used.

iii) **Detection of HIV antibody:** This is most commonly employed method applied so far for the diagnosis of HIV infection. The method usually empioyed for its detection is enzyme immunoassay; the common kit which is used is known as *ELISA* Test.

a) ELISA Test: Enzyme Linked Immunosorbent Assay—a test used to detect the antibodies against the virus. This is a primary diagnostic test used by the blood banks/serosur-veillance centres as routine screening test. The advantages are rapidity, excellent sensitivity and low cost. Only disadvantage is, it can give false positive result. So another technique is used for confirmation of the positive result.

b) Western Blot Test: This test is more specific than ELISA. It is difficult to perform and considerably more expensive and it is used only as a confirmatory test on samples found to be reactive to ELISA.

2) **Indirect tests:** The most important indirect test used for the assessment of the HIV infection is T-4 lymphocytes (helper cell) count and the ratio of T-4/T-8. Due to gradual depletion of T-4 helper cells with the advancement of HIV infection, the count will come down below the normal range and thereby ratio of T-4/T-8 will be altered by simple mathematic logic.

Predictors of AIDS

4 Predictors:

i) CD4 Helper Lymphocyte count
ii) Presence of HIV P-24 antigen
iii) Concentration of Beta-2 microglobulin
iv) Presence of Neopterin

Conclusion

During the course of study each and every HIV infected individual person must be screened clinically as well as by investigation to conclude the result. But the laboratory investigations are most important for the assessment of the state of infection. If the person turns to seronegative and the T-4/T-8 ratio returns back to normal state after using the homoeopathic medicines, it will be a great achievement. We, the research workers under CCRH involved in AIDS PROGRAMME are very optimistic in this regard. As our present experience shows that clinically the response of medicines in HIV persons are significant. Though the programme was started as per directive of Govt. of India in collaboration with ICMR, but the desired co-operation from different agencies is not available at the moment and hope that getting the required help from the proper authority we will achieve the target fixed for the experimental study. I want to conclude my writing with the following lines—

"The solution of AIDS control will not come solely from the authorities such as scientists, doctors, government. But the whole population has to accept responsibilities to learn—how HIV is spread, to reduce risky behaviour, to raise our voice against acceptance of the drug culture and to avoid stigmatizing victims of the disease. If we can accept such responsibility, the worst element of nightmare will have been removed from the 'AIDS EPIDEMIC'.

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