GAYPOZ IRELAND

Volume 1 Issues 7 & 8 DECEMBER & JANUARY 1996

CHALLENGE IDEAS NOT PEOPLE

INSIDE

POSITIVE LIVING

GCN FAILURE

FREQUENTLY ASKED HIV TREATMENT QUESTIONS

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HIV

GPI

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PROTEASE INHIBITORS

GayPoz Ireland is a proactive support group for HIV positive Gay Men. Although HIV/AIDS affects people throughout society, some Gay Men living with HIV feel more comfortable discussing issues in a strictly HIV+ gay male environment. GPI meets on a regular basis.

GPI's newsletter provides information about HIV/AIDS. GPI has links with the U.S., Canada and Europe and this gives GPI the best information on the treatment of HIV/AIDS. This newsletter is for all those living with HIV/AIDS and those who care about us.

GPI is compiled, written & edited by Dr. John Williams.

GPI, PO BOX 5187, DUBLIN 6. Telephone: 087 436502

ANTIOXIDANTS

Many body chemicals exist in an oxidised state. In this state they are referred to as free radicals, and are highly interactive which can cause damage to tissues and processes your body needs.

Free radicals are an unavoidable by-product of body chemistry. Our bodies contain antioxidants which neutralise free radicals and thereby minimising the damage they can do. In illness or infection there is an increase in free radical production. HIV can use free radicals to establish itself.

We already know:

1. HIV production is inhibited (in vitro) by antioxidants.

2. In vitro reduction of antioxidants causes HIV production to increase.

3. The amount of antioxidants is decreased in people with HIV, and levels progressively decrease with increasing illness.

4. Some study results suggest that antioxidant supplementation may slow the progression of HIV.

It would seem prudent to increase our antioxidant supply to help protect and repair our bodies against HIV infection.

Antioxidants include:

Vitamins A , C & E
Beta Carotene
Bioflavinoids
Selenium
Coenzyme Q10
Quercitin
N-acetyl cysteine

Super Oxide Dismutase.

Vitamin A

A fat soluble vitamin, it helps to maintain the integrity of the respiratory tract. High doses have been seen to suppress HIV replication in certain cells. However high doses can be toxic. It is safer to take **Beta Carotene** which is a precursor of Vitamin A, the suggested dosage of beta carotene is 15-30 mg per day i.e. 25,000-50,000 IU per day.

Vitamin C

This vitamin is involved in the manufacture of hormones, steroids and neurotransmitters. It exhibits an antiviral effect against herpes. It reduces the severity of symptoms and shortens illness time with acute viral infections such as flu and colds. This will be achieved when a tissue saturation is done. To reach this gradually increase the daily dose to 3-6 grams up to the amount which causes diarrhoea. This will be your tissue saturation level - then drop back 10-20 % below this level. Take with bioflavinoids.

Quercitin

A bioflavinoid with antihistamine and anti-inflammatory effect. 500-2000 mg a day, it works in conjunction with Vitamin C.

Vitamin E

This is fat soluble vitamin. It must be taken in the d-alpha tocopherol form which is naturally produced. Synthetic forms are not as useful. Supplementation is shown to increase cell mediated immunity and thought to increase the effectiveness of AZT. I suggest 400-600 IU of Vitamin E per day.

Selenium

Selenium deficiency is associated with heart disease and anemia. Thrush is more common and CD4s drop. Minimum 150-200 micrograms a day. The inorganic forms are probably best i.e. selenate or selenite.

Coenzyme Q10

May help prevent progression of HIV. It is seen to be good for fatigue and adenopathy (swollen lymph glands). Suggested dosage 30-300 mg a day with meals.

N-acetyl cysteine (NAC)

Supplementation increases cysteine and glutathione levels. These are amino acids which are the building blocks for proteins. Dosage recommendations are 600-1000 mg a day in divided doses.

Super Oxide Dismutase (SOD)

This is currently under study. It is an enzyme which is found in the body and helps drive the antioxidant process. The levels of supplementation have not been established. However 2,000 IU taken three times a day on an empty stomach has been suggested in preliminary studies.

We can help our bodies to protect and repair itself by increasing our antioxidant supply.

Note : Alcohol increase the number of free radicals and hence the damage they do to the body.

For more information on antioxidants write to:
GPI, PO BOX 5187, Dublin 6.

GLOSSARY D - H

D

dementia: Loss of memory and other intellectual functioning caused by HIV or another disease.

dose: The amount of a drug that is given at one time.

dose comparison: A trial that uses different amounts of the same drug. Sometimes the drug is tested against a placebo.

double-blind: A type of drug trial in which people are divided into different groups. One group takes the experimental drug and other groups take different doses, the standard therapy, or placebo. Neither the researchers nor the person in the trial knows who is taking what until the trial is over.

E

encephalitis: Inflammation of the brain. Symptoms include headache, neck pain, fever, nausea, and vomiting. Nervous system problems may occur such as laziness, paralysis, weakness, and coma. Treatment includes antibiotics for infection, steroids to reduce brain swelling, medicine to control fever and headache, and prolonged bedrest.

enzyme: Protein chemical that can accelerate a chemical reaction in the body.

eosinophil: A type of white blood cell, called a granulocyte, that can digest microorganisms.

Epstein-Barr virus (EBV): A herpes-like virus that causes one of the two kinds of mononucleosis (the other is caused by CMV).

erythrocytes: Red blood cells whose primary function is to carry oxygen to cells.

experimental drug: A drug that has not been approved for use as a treatment for a particular condition.

F

floaters: Floating dark spots within the field of vision. They can be caused by CMV retinitis, but also appear in some persons as a normal part of the aging process.

fungus: A general term used to denote a class of microbes including mushrooms, yeast, and molds. Fungi cause infections such as thrush, cryptococcal meningitis, and toxoplasmosis.

G

gamma globulin (IgG): The portion of the plasma that contains antibodies.

gastroenteritis: Inflammation of the lining of the stomach and intestines.

gamma globulins: A type of immunoglobulin made by plasma cells, which is able to resist infection by viruses and bacteria. Simple proteins found in blood serums which contain various molecules central to immune system function.

gp120: A piece of HIV that can cause damage to the immune system and other parts of the body. gp120 is the foundation for several of the new vaccines.

granulocytes: A cell type of the immune system filled with granules of toxic chemicals that enable them to digest microorganisms. Basophils, neutrophils, and eosonophils, are examples of granulocytes.

granulocytopenia: An abnormally low number of granulocytes in the circulating blood that can lead to increased risk of severe bacterial infection.

growth factors: A growth factor is responsible for regulating cell proliferation (rapid and repeated reproduction), function and differentiation. Different growth factors elicit different responses from different cell types, such as stimulating cell growth, enhancing cell survival, initiating cell migration and stimulating the secretion of tissue-specific hormones.

H

hairy leukoplakia: A whitish, slightly raised lesion that appears on the side of the cheeks, gums or tongue. Thought to be related to Epstein-Barr Virus infection. (OI)

helper cells: (T4, CD4) A subset of T cells that carry the T4 marker and are essential for turning on antibody production, activating cytotoxic T cells, and initiating other immune responses.

haematocrit: The percentage of packed red blood cells in a given volume of blood. Normal ranges: women 37-43%, men 43-49%.

haemoglobin: The protein in red-blood cells responsible for carrying oxygen.

hemophilia: An inherited disease that prevents the normal clotting of blood.

GPI, PO BOX 5187, DUBLIN 6.

WHAT'S IN A NAME ?

Dr. John Williams

Most available drugs are given brand, or trade names to distinguish them as being produced and marketed by a particular manufacturer. A drug which is marketed by more than one company will have more than one brand name.
Below are listed some of the drugs which are used in HIV disease.

DRUG NAME	BRAND NAME	DRUG TYPE
acyclovir	Zovirax (ACV)	Antiviral
azithromycin	Zithromax	Antibiotic
clarithromycin	Biaxin, Klacid	Antibiotic
delavirdine	Rescriptor	Antiviral
didanosine	Videx (ddI)	Nucleoside analogue
fluconazole	Diflucan	Antifungal
ganciclovir	Cymevene (DHPG)	Antiviral
itraconazole	Sporanox	Antifungal
indinavir	Crixivan	Protease Inhibitor
ketoconazole	Nizoral	Antifungal
lamivudine	Epivir (3TC)	Nucleoside analogue
nevirapine	Viramune	Antiviral
rifabutin	Mycobutin	Antibiotic
ritonavir	Norvir	Protease Inhibitor
saquinavir	Invirase	Protease Inhibitor
stavudine	Zerit (d4T)	Nucleoside analogue
trimethoprim/ sulfamethoxazole	Bactrim, Septrin (TMP/SMX)	Antibiotic
valaciclovir	Valtrex	Antiviral
zalcitabine	Hivid (ddC)	Nucleoside analogue
zidovudine	Retrovir (AZT, ZDV)	Nucleoside analogue

FACT SHEETS ON THESE DRUGS ARE AVAILABLE FROM GPI.
PLEASE WRITE OR PHONE FOR YOUR COPY.
WRITE TO:
GPI, PO BOX 5187, DUBLIN 6.
PHONE: 087 436502.

FALLING LOGS

LOG CHANGES IN VIRAL LOAD

In a logarithmic scale, each step up the scale, say from two logs to three logs, represents an amount 10 times higher than the last log step.
Applying this to viral load is fairly simple. For example a test result which drops from 50,000 copies to 5,000 copies shows a one log decrease.
A two log fall might be from 50,000 copies to 500 copies. (A hundred fold drop).
A three log fall would then be from 50,000 copies to 50 copies.
Log fractions are more difficult to deal with. For example a 0.5 log fall is a two-third fall in viral load. A half (0.5) log drop of a 5,000 viral load to approximately 3,330 copies.

* What is antiretroviral therapy?
* What drugs are used for antiretroviral therapy?
* What is currently known about antiretroviral therapy?
* What are the benefits of antiretroviral therapy?

TREATMENT FREQUENTLY ASKED QUESTIONS

What is antiretroviral therapy?

Antiretroviral therapy is a name for treatment with drugs that stop HIV, the retrovirus that causes AIDS, from reproducing and infecting cells in the body. This effect may slow the progression of HIV disease in some people.

What drugs are used for antiretroviral therapy?

There are three general types of antiretroviral drugs that are currently available by prescription or through pharmaceutical companies or clinical trials. All of these agents help control HIV disease for a limited time, but the virus eventually develops resistance. Types of antiretroviral drugs include:

Nucleoside reverse transcriptase inhibitors

This group, which has been studied the most, includes zidovudine (AZT, ZDV, Retrovir); didanosine (ddI, Videx); zalcitabine (ddC, Hivid); stavudine (d4T, Zerit); and lamivudine (3TC, Epivir). These drugs act by blocking a step in the reproduction of HIV called reverse transcription.

Non-nucleoside reverse transcriptase inhibitors

This group, which is now being tested in clinical trials, includes nevirapine, delaviridine, and ateviridine. So far it seems that these drugs inhibit HIV for only a short period of time. These agents may be effective if used in combination with other types of antiretroviral drugs. Non-nucleoside agents block HIV reverse transcription but in a different way than nucleoside drugs.

Protease inhibitors

This group, which is also being evaluated in clinical trials, includes saquinavir (Invirase), indinavir, ritonavir, and other agents. These drugs act by blocking the action of a protein made by HIV called protease. Researchers hope that these agents, in combination with reverse transcriptase inhibitors, will control HIV reproduction for longer periods of time. However, HIV can develop resistance to these drugs, just like it does to others.

What is currently known about antiretroviral therapy?

Most clinical studies show that antiretroviral therapy can benefit persons with HIV disease, although there is much uncertainty about how to make best use of the available agents. Doctors agree that better drugs are needed for antiretroviral therapy. Although drugs can slow progression of HIV, they only do so for a limited period of time and do not cure the infection. Many doctors and researchers believe that HIV can be slowed by switching from one antiretroviral drug or combination to another periodically. However, there is still some uncertainty regarding:

1) when is the best time to begin treatment to get the most benefit;
2) what antiretroviral agent(s) are best to use initially; and
3) when is the best time to switch to other drugs. The test which measures the amount of HIV in the bloodstream (also called viral load or viral burden tests) may help clarify some of these issues.

What are the benefits of antiretroviral therapy?

Clinical studies show that people with AIDS live longer if theystart taking antiretroviral therapy at the time of their AIDS diagnosis. However, you may also be at greater risk for serious side effects from the treatment at that time.

CONTINUED ON PAGE 6

TREATMENT FREQUENTLY ASKED QUESTIONNS

* What are the benefits of antiretroviral therapy?
* What are the risks of antiretroviral therapy?
* What issues should I discuss with my doctor?

continued from page 5

If you are at an earlier stage of HIV disease, antiretroviral therapy may increase the time until you develop AIDS and slow the progressive damage HIV does to your immune system. In addition to slowing disease progression, AZT has also been shown: 1) to reduce the risk of HIV transmission from mother to child if given during pregnancy; 2) to reduce symptoms of HIV-related dementia; and 3) to increase the number of platelets in people with a low count (thrombocytopenia).

What are the risks of antiretroviral therapy?

All medications, including antiretroviral drugs, can have side effects, some of which are serious . Decisions about which agents to use should be based not only on their effectiveness but also their potential toxicity. If identified early, drug side effects disappear when the agent is stopped so that permanent damage from antiretroviral therapy is unlikely. For this reason,it is important to be monitored regularly by your doctor when taking antiretroviral treatment.

What issues should I discuss with my doctor?

Like any form of treatment, decisions about antiretroviral therapy must fit your individual needs and expectations. Knowledge of how to use these agents continues to progress, and their role is changing over time. Some questions you may choose to ask your doctor include:

When should I start taking antiretroviral drugs?

Unless you have early complications related to HIV disease, most doctors will not recommend that you consider beginning treatment until your T-cell count drops below 500. If your count is between 200 and 500, treatment may be recommended if the T-cell count drops over time or if HIV-related problems, such as thrush or herpes simplex virus infection, occur. If your count is between 200 and 500 and you have no symptoms, you may wish to start treatment, or you may choose to be monitored closely without treatment for the development of symptoms of HIV disease or changes in your T-cell count or viral load measurement.

What antiretroviral drug should I take?

AZT is the best studied drug, and many doctors prescribe it first. However, recent studies suggest that ddI alone, or AZT in combination with ddI, ddC, 3TC, d4T are more effective than AZT alone as initial treatment.

How long should I take an antiretroviral drug before switching to avoid viral resistance?

At present, the answer to this question is unknown, although most experts would recommend several months to a year. Many doctors look for progressive symptoms, a significant drop in the T-cell count, or an increase in the viral load measurement as indicators that antiretroviral agent(s) are no longer effective.

What drug(s) should I switch to?

If you are receiving AZT, switching to ddI or AZT in combination with ddI, ddC, 3TC, d4T has been shown to provide a clinical benefit over continuing AZT therapy alone.

How can I get access to experimental drugs?

Clinical trials evaluate various antiretroviral drugs alone and in combination. In addition, some agents being tested in clinical trials are also available through pharmaceutical company expanded access programs. Your doctor or local HIV/AIDS organization should be able to provide specific information regarding these options.

This Information Sheet is prepared by the National AIDS Treatment Information Project (NATIP) .

CHALLENGE IDEAS NOT PEOPLE

NUCLEOSIDE ANALOGUES.
THE REVERSE TRANSCRIPTASE INHIBITORS.

e-mail: poz@indigo.ie

Agent	Dose	Side Effects
AZT	200 mg tid	GI, headache, low blood counts
ddI	125-200 mg bid	GI, pancreatitis, peripheral neuropathy
ddC	0.750 mg tid	GI, peripheral neuropathy
d4T	30-40 mg bid	abnormal liver function tests, peripheral neuropathy
3TC	150 mg bid	headache, fatigue, GI

tid=three times a day; **bid**=twice a day
GI side effects consist of nausea, vomiting, and diarrhoea.
Symptoms of **pancreatitis** include nausea/vomiting and belly pain.
Symptoms of **peripheral neuropathy** include numbness, tingling, or burning of hands or feet.

John Williams.

GAINING WEIGHT

As an anabolic (protein building) and an anticatabolic (protein sparing) agent, rHGH (recombinant human growth hormone) manufactured as Serostim TM results in a significant increase in lean body mass and weight, with a decrease in body fat. Serostim is indicated in AIDS wasting or cachexia. This indication is based on analyses of surrogate endpoints (lean body mass and weight) in studies of up to 12 weeks duration. Concomitant antiviral therapy is necessary with Serostim. During the course of the trials it was learned that preventing the continual loss, as well as promoting the gain of lean body mass, are the keys to improving physical function.

MAC
Mycobacterium avium complex

Mycobacterium avium complex (MAC) infection occurs in 18 to 40 percent of people with AIDS, and most commonly in those with CD4 counts under 50. MAC is also referred to as Mycobacterium Avium Intercellulare or MAI. MAC is a difficult infection to diagnose, as its symptoms mimic many other infections and tumors. MAC infections can occur in the respiratory system or gastrointestinal tract, and the infection may spread through the bloodstream. Clinical trials for MAC prophylaxis include clarithromycin, rifabutin, or a combination of both. The individual drugs and the combination both may cause side effects that would require discontinuation of treatment. Azithromycin administered weekly, compared to rifabutin, or a combination of both, also had some significant adverse effects. The azithromycin/rifabutin combination resulted in the lowest rate of MAC breakthrough. Drug resistance and cross resistance to these drugs exist.

Issue 9 will cover MAC in more detail with an update on the current research regarding prophylaxis and treatment. Including reports on ethambutol in combination therapy and azithromycin. **J.Williams.**

Integrase Inhibitors

Integrase is an HIV enzyme. The other two enzymes used by HIV are Reverse Transcriptase and Protease. HIV uses integrase to incorporate its genes into the cell's DNA. Inhibiting HIV's integrase would potentially protect healthy cells from becoming infected, thereby helping to protect the immune system. One inhibitor of HIV integrase is now in the clinical stages of development.

AR-177 (Zintevir)

This is synthetic DNA, and is formulated in a sterile buffered solution for intravenous administration. Its anti-HIV activity has been demonstrated by:

1. A decrease in reverse transcriptase activity in vitro.
2. A decrease in p24 levels as measured by ELISA.
3. Maintaining survival of CD4+ cells.

No adverse events have been reported in patients who have received AR-177 so far.
References and trial centres available on request.

CYTOKINES

Cytokines are chemicals which are produced by the immune system to combat disease. They act as chemical messengers, which are secreted by the cells of the immune system which help to coordinate and control its function. It is suggested that part of the damage to the immune system in AIDS may be due to the interaction between HIV and cytokines. This can occur in two ways:

1. HIV can disrupt the normal functions and levels of cytokines

2. Cytokines can stimulate HIV replication.

High levels of cytokines in HIV/AIDS may contribute to KS, lymphoma, weight loss, persistent fevers and diarrhoea. Typically in HIV high levels of the cytokines IL-1, IL-4 and tumour necrosis factor (TNF) are seen, while others such as IL-2 are present at reduced levels. Drugs such as Thalidomide and sulfasalazine are currently been tested for their potential to reduce harmful cytokines. L-Carnitine, available through Health Food Shops shows similar results.

The Cytokine IL-2

IL-2 is a glycoprotein generated by the T lymphocytes (T-cells). IL-2 activates the immune system by stimulating production of certain cells e.g. NK (natural killer) cells, and potentiates B cell growth. A decreased level of IL-2 is associated with increased risk of disease progression. IL-2 is in trials with other antiretroviral drugs - AZT, ddI and Indinavir. IL-2 is administered by injection subcutaneously (under the skin). See next page for trial results.

Dr. J. Williams.

For trial results, toxicity/side effects and references for any drugs mentioned in this issue please write to :

GPI, PO BOX 5187, DUBLIN 6.

e-mail: poz@indigo.ie

UPDATES

Test for Tuberculosis

Nucleic Acid Amplification.

A nucleic acid amplification (NAA) test for Mycobacterium tuberculosis complex, the Amplified Mycobacterium tuberculosis Direct Test (MTD), was recently approved by the Food and Drug Administration for clinical use. The test, which uses transcription-mediated amplification to detect M. tuberculosis-complex ribosomal RNA, is to be used in conjunction with culture for respiratory specimens that are positive for acid-fast bacilli. When used properly, a positive MTD test result can provide relatively fast results, indicating a high likelihood of TB. Other NAA tests are being developed and are now under FDA consideration. The tests may improve diagnostic certainty but should be interpreted in a clinical context and on the basis of local laboratory performance.

Treatment for Kaposi's Sarcoma.

The Effects of Preparations of Human Chorionic Gonadotropin on AIDS-Related Kaposi's Sarcoma.

Previous studies have shown that Kaposi's sarcoma, the most common cancer in AIDS patients, can be inhibited in vitro and in immunodeficient mice by treatment with human chorionic gonadotropin (**hCG**). Dr. Parkash S. Gill, of the University of Southern California, and colleagues recently tested the effect in humans by giving 24 patients with AIDS-related Kaposi's sarcoma injections of hCG three times a week for two weeks, in varying doses. Some patients reported mild side effects. The authors report that tumor regression corresponded to dosage, with some tumors disappearing completely and others reducing in size.

Increasing T-Cells, a Key in AIDS Battle

A team of U.S. government researchers may have discovered a way to boost levels of the immune system's T-cells to help the body fight off HIV infection. Studies at the National Institutes of Health, published in the New England Journal of Medicine, show that a genetically engineered version of **interleukin-2, or IL-2**, can boost a patient's T-cell count by two to five times when used with drug therapy. IL-2, which is marketed by Chiron of meryville, Calif., under the brand name Proleukin, is a human protein that has been studied since 1983 as a potential treatment for AIDS and cancer. While more research is needed on the long-term use of the therapy, AIDS experts and activists are enthusiastic and hopeful.

Glaxo's AIDS Ammo

Glaxo Wellcome, the London-based pharmaceutical company that makes Epivir and AZT, is expected to control more than 50 percent of the world's $1.3 billion AIDS drug market this year. While the company is not marketing a protease inhibitor, new studies show that AZT and Epivir are critical components of the combination therapies that include protease inhibitors. Sales of AZT should increase 27 percent this year to $400 million, and sales of Epivir, licensed from Canada's BioChem Pharma, are expected to jump to $260 million this year from $12 million last year. Both drugs interfere with HIV's replication by inhibiting the virus's reverse transcriptase enzyme. When combined with a protease inhibitor, the drugs can reduce the amount of virus in patients' blood to undetectable levels. Glaxo is also developing a protease inhibitor, called VX-478, which will become available in 1998.

Business Week (21/10/96) No. 3498,

Retroviruses Conference

The 4th Conference on Retroviruses and Opportunistic Infections, January 22-26 at the Sheraton Washington Hotel in Washington, D.C., will probably be the most important AIDS conference in the U.S. in 1997.

Further information, resources, research results. Please write to:

GPI, PO BOX 5187, Dublin 6.

e-mail: poz@indigo.ie

ERADICATION OF HIV

Can HIV be Eradicated?

Speculation that HIV could be eradicated from the body using currently available drugs, virtually unthinkable only a year ago, has followed reports of the success of combination drug therapies in bringing virus in blood to undetectable levels. Many researchers point out that eradication theories are overly simplistic and do not take into account the difficulty of eliminating the virus from cells in the body which are longer lived or difficult to access with current therapies.
Researchers and activists use words such as "eradication" and "clearance" rather than "cure" because they are afraid to raise false hopes. Is there now a hope for a cure or is it just wishful thinking and media hype?

New Treatments

Over the last year, the arsenal of drugs available to interfere in the life cycle of HIV has grown from the original class of nucleoside analogs to include protease inhibitors (e.g. indinavir, ritonavir, saquinavir) and non-nucleoside reverse transcriptase inhibitors (e.g. nevirapine). Treatment regimens using combinations of these drugs have been shown to dramatically reduce the amount of virus in the blood (viral load).

* **Studies among newly infected persons using three drug combination therapy (two nucleoside analogues and a protease inhibitor) showed that, for all patients who could tolerate the drugs and stick with the dosing schedule, viral loads became undetectable (below 500 copies/ml). In one of the studies, patients who followed the regimen for ten months began to lose their HIV antibody response.**

* **Studies of combination therapy in middle-stage patients who had not previously taken antiretroviral drugs showed similarly encouraging results. In one of these studies, 12 middle-stage patients on a three drug combination therapy (two nucleoside analogues and a protease inhibitor) achieved viral loads below 25 copies/ml at twelve weeks.**

* **Additional studies showed that the gathering hope could extend to patients who already have experience with antiretrovirals. One study showed that 92% of AZT-experienced patients on a three drug regimen (AZT, 3TC, indinavir) achieved undetectable viral loads at 24 weeks.**

Eradication Theory

Dr. Ho of the Aaron Diamond AIDS Research Center has proposed a model of HIV infection that suggests there are several different viral compartments of the body that harbor HIV, each with different characteristics. The first and second compartments (virus in blood plasma and activated infected CD4-cells) have a short life span. The prediction that, in the presence of a perfect anti-viral therapy, these compartments would clear in the first three weeks of treatment leading to a reduction in viral load of 90-99%. The third compartment consists of latently infected (resting) CD4 cells and longer-lived cells, such as tissue macrophages. Dr. Ho, et al., estimated that total clearance of HIV from the body could be achieved in 30 to 120 weeks.
Dr. Ho has cautioned that this analyses does not take into account the potential for the virus to remain active in other compartments, such as the brain or testes, which are harder to access with therapies. Virus in these other compartments or sanctuary sites could serve as embers to reignite the virus if therapy is withdrawn. The concept of sanctuary sites has led some researchers to speculate that viral clearance may be easier if treatment occurs soon after infection – before the virus becomes fully imbedded in the body.

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HOPE VS. HYPE

Continued from page 10

Studies with people who have recently become infected (new seroconverts) are testing this theory. Others believe that viral eradication will not be possible with currently available treatments. UCSF AIDS researcher and clinician, Dr. Steven Deeks believes that "the models which have been presented are overly simplified and make major assumptions. **Available data clearly show that current therapies do not get into certain hidden reservoirs, including the brain and the testes."**

To get at longer-lived reservoirs, researchers will begin testing several new approaches:

* **Directly treating latently-infected cells with new drug therapies.**

* **Stimulating the immune system, with immuno-modulators such as interleukin-2, to activate latent cells and reduce their lifespan.**

* **Suppressing the immune system, for example with radiation treatment, to kill off infected immune system cells and then allowing the body reconstitute the immune system in the presence of combination therapy.**

* **Using CD8 cells, modified through gene therapy, to "mop-up" latently-infected cells.**

Eradication Reality

Researchers have been working with a small number of patients to try to eradicate the virus using aggressive combination antiretroviral therapy. Their first attempt at testing eradication demonstrated the challenges of eliminating HIV from longer-lived cells. One of their patients was treated with AZT/ddI/ddC/interferon-alpha for over 80 weeks. The patient showed zero viral load during the last 30 weeks of this period and at week 78 a lymph node biopsy showed normal architecture and no evidence of HIV. The patient was then taken off drug therapy and his viral load increased (to over 10,000 copies/ml in approximately five weeks). Combination therapy was reintroduced and the patient's viral load decreased to undetectable levels. Researchers now believe that undetectable viral load and clear lymph node biopsies are not sufficient to indicate clearance has occurred.

The media-hype suggesting a cure will soon be available is dangerous. Research over the coming months will tell us a lot more about the long-term potential for eradication. In the meantime, the most important implications of these eradication theories may be for people who are HIV-negative and for those who have recently sero-converted:

* **Early treatment may make a difference in the potential for achieving viral clearance. Understand the symptoms of seroconversion. If you are sexually active, more frequent testing will reduce the time from exposure to beginning treatment. If you suspect you are seroconverting, get a viral load test rather than an HIV antibody test.**

* **Drug treatment immediately following exposure may be capable of halting the virus before sanctuary sites are seeded. We need to consider the potential for making combination drug therapies available as a morning-after treatment for sexual exposures.**

GPI wishes to thank Don Howard and Bill Snow of ACT UP/Golden Gate Writers Pool for supplying this article which was originally published in the October 10, 1996 edition of the San Francisco Bay Area Reporter. Edited by Dr. John Williams.

AS POSITIVE PEOPLE

"WE HAVE SURVIVED....."

1. The loneliness and fear of telling other people or of other people finding out.
2. The fear of forming relationships and having sex after diagnosis.
3. The fear of infecting partners.
4. The lack of information and the misinformation.
5. The drugs (remember the high doses of AZT ?).
6. The loss of friends, colleagues and lovers, and the guilt of still being alive when they are not.
7. The bouts of depression when you hit rock bottom.
8. The (most well meaning) HIV workers who want to 'take care' of you.
9. The offensive conversations you hear and some of the outrageous things which are put out on the media.
10. The fear of becoming ill, of losing your looks and becoming dependent. And the monotony of wondering will it happen tomorrow, next week, next year.....
The list goes on.....

This list is compiled from the opening remarks of Kate Thomson at the London conference for long term survivors, 'Living Proof' held in March.

tips for survival !

SURVIVAL TIPS FROM ISSUE 6

1. UNDERSTAND THE BIG PICTURE - THE DOMINO EFFECT OF AIDS TREATMENT.

2. SEEK OUT ONE OF THE EXPERIENCED AIDS SPECIALISTS. (WE ONLY HAVE TWO!)

Select a doctor who will listen to you and explain things until you understand them. Without experienced and knowledgeable specialists you will succumb more readily to oppurtunistic infections.

Only a seasoned specialist has the experience to maintain a workable trade off between the drugs and body organs. (liver, kidney, bone marrow.)

3. CALL YOUR DOCTOR BY HIS/HER FIRST NAME. IT MAKES THEM THINK OF YOU AS A PERSON.

4. MAKE FRIENDS WITH YOUR SPECIALIST'S TEAM.

5. PREPARE FOR YOUR DOCTOR VISITS. (MAKE LISTS OF QUESTIONS).

List your symptoms and questions ahead of time so you don't forget anything important. Take notes on what the doctor tells you. If you are taking a lot of drugs and changing them frequently, take a list and current doses to compare with your doctor's list.

6. HELP YOUR DOCTOR MANAGE YOUR CONDITION.

Read newsletters and arm yourself with treatment facts. The informed ones include: GPI, NAM -AIDS Treatment Update, and GMHC Treatment Issues.

7. GET A GOOD HIV/AIDS TREATMENT BOOK.

NAM's HIV/AIDS treatment directory or AmFAR is worth having. (Please write or phone for details).

8. LEARN TO READ YOUR BLOOD TEST RESULTS.

This is not as hard as you may think. Issues 5 and 6 give you what to look for. Ask your doctor to give you a copy of your results.

9. IF YOU FAIL ON STANDARD TREATMENTS, ASK ABOUT EXPERIMENTAL DRUGS.

If the big gun drugs stop working, seek out experimental treatment. Learn which trials are in progress.

10. FIND OUT ABOUT THE BENEFITS YOU ARE ENTITLED TO AND APPLY FOR THEM.

11. BE ONE STEP AHEAD ON NEW INFECTIONS.

You reduce your chance of survival if you do not identify and treat new infections. The longer you wait the harder they will be to treat. Don't be discouraged by new infections. A few of them can be show stoppers, but most aids related infections come and go with treatment.

Tips 12 + in issue 9.

MARTIN MULHALL
POSITIVE LIVING

PRAYING ? ME ? HAH ?

Tottering on the precipice (presuming there is one) the next, foothold on life, hoping for a last passed down sentence..... The CD - its the 90's) has been played become my life.

Having been diagnosed well until 1994. Since then there between this world and furtively searching for a firm minute reprieve on this unfairly past two years the record (sorry, ad nauseam. But that has

HIV-positive in 1988, I remained have been about half a dozen times when I, not unreasonably, thought my number was up. Each time I have (thankfully) been rescued at the last minute from the greedy grasp of hell's angels. Although a cynic and a staunch atheist, I admit momentary lapses in my lack of faith. Like earlier this year, while having a severe reaction to a treatment I had been given in hospital, I panicked and it slipped out. I admit it. I said "God help me." Now I know its not quite prayer and pales in comparison with, for example, the rosary, but in times of acute stress its much easier to remember. But (at least in my head) I heard a thundering voice saying "Feck off, ye bollix. Who the hell are you?" Now my mother would probably chide me at this point and point out that the GOOD LORD would never use language like that, but then my mother's another story altogether.

People are always asking "What do you do?", meaning I'm sure, "In what way do you contribute in a meaningful way, to the well being of society?" Well, I haven't been employed for over two years, so, in terms of productivity, I've done very little. It would be nice to be able to say that I've taken up painting, or I'm writing a novel or I'm traveling or some equally creative means of spending my time. But I haven't. I have been busy though. Busy just living. Staying alive. And believe me, it's more like hard work than work ever was.

Over the past two years I have come to marvel at the extraordinary energy within us to survive. If I gave an account of my past two years any sane person would say it's not worth it. Certainly if I could have foreseen my future I would have said "NO, NO I can't cope.No I can't deal with it. I want out now!" But in fact you do cope. You do learn to deal with it. And you want now to go on forever, no matter what it bloody takes. And so each new Spring I ask for just one more Spring, each Summer for one more Summer, each Winter for one more (milder, please!) Winter. Although, being an atheist I'm not quite sure who it is I'm asking these favours.....never does any harm to ask now does it? So, another year goes by, although by now I have stopped measuring time in years. Sounds too long. Too immeasurable. Days and weeks are much easier to fit into my scheme of things. Much more reliable.

And so, it is with great expectation that I look forward to the ever brighter, longer days as summer approaches. Out with the party frock. Cancel the installments to the undertakers (seemed like a good idea at the time - 20% discount if prepaid!). Couldn't be seen in a '96 shroud if I last till '97. Anyway, if I'm going to be around a little longer I can think of more exciting ways to spend my money. Dump me at sea if you have to when the time comes.

I know. Sorry guys. Another false alarm. It's unfair of me to keep doing this to you. But I'm here to stay a while longer. Talk about a drama queen! That's carrying things too far. I don't mean to do it. Honest, it just happens that way. So fasten down the hatches. We're in for a long and maybe bumpy ride. Promises, promises.....

Supplied for GCN by GPI in May 1996.

Early this year I badgered Martin to write this article for GCN. (GCN with dogged reluctance had finally conceded to allowing two permanent articles from GPI - HIV News and Positive Living.) Martin agreed and submitted the above piece for the May issue of GCN. He supplied his name and GCN withheld it thinking to preserve his confidentiality. Martin wanted to be credited for this article and writing of this calibre demands an owner, now it is Martin's.

This Winter isn't beginning very mild, against Martin's wishes. Maybe atheism doesn't pay. I've opted for agnosticism to hedge my bets. An insurance policy in non-belief ! That November chill settled in hard today with a goodly damp companion to sweeten the outlook. It is one of the best topics to adhere to in conversation - the weather. It helps to avoid actual reality. Actual reality was a bit rotten today. Another part of that edifice of support has collapsed and we are somewhat weaker for that. Another point of reference has gone and now there isn't a companion to share those ideas with. Another friend has died and now there are fewer friends left.

Sometimes this thing seems relentless. It has days when it seems to gather enough force and momentum to wipe us all out. Other times it appears to lie dormant in some dark corner barely visible and harmless. It never lies completely still. It always lurks about and unpredictably makes its next move. And so its struck again, and so we all suffer.

For brighter days Martin, my thanks. For brighter tomorrows, our hope! After all, "If winter comes, can spring be far behind ?"

John.

GCN STILL SLEEPS

GPI has challenged GCN in their use of the title "Gay Community News". GPI maintains they must adopt the title "GCN excluding the Positive Gay Community". GPI's November's coverage of HIV/AIDS issues promised hope and delivered lip service to nothing. They offered a 'time-line' of AIDS from 1980 to 1996 which said more from its exclusion than content. GPI edited a substantial piece for GCN on the nature, course and treatment of HIV/AIDS - this never appeared. Will we see it in their December issue ? - I would not hold my breath.

GPI implores GCN to wake up to those issues which have touched all our lives as Gay Men.

GPs

GPI has had initial discussions with GPs and those involved in GP training regarding the greater involvement of GPs in primary HIV care.

The willingness that has been shown in negotiations to date has been very encouraging. This is not equaled by an HIV/AIDS awareness. The establishment of a dynamic and available information network is the essential ingredient for the development of HIV GP care.

The available fact file: HIV and AIDS in General Practice carries outdated treatment information and should be referred to with extreme caution.GPI has begun to revise this copy.

GPI '97

GPI has compiled a list of New Year's Resolutions.

1. To learn to forgive the jerks in our lives.

2. To develop a framework to improve the delivery of care.

3. To encourage greater GP involvement in primary HIV care.

4. To begin to receive the care and support we actually need and not our perceived needs.

5. To advocate and lobby decision makers for changes in '97.

6. To ensure the freedom of access to information and treatment options.

7. To eliminate divisions between Gay Men and Positive Gay men.

8. To prevent the spread of HIV/AIDS with open and frank discussion.

9. To improve emergency hospital cover.

10. To re-define HIV as a VIRUS and remove the rest of its stigmatizing baggage.

"We are stronger together."

GAYPOZ IRELAND IS DISTRIBUTED FREE TO THOSE LIVING WITH HIV/AIDS.

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GPI, PO BOX 5187, DUBLIN 6.

The GPI newsletter is compiled,written and edited by Dr. John Williams, who has 12 years experience with HIV/AIDS issues.

GPI wishes to thank SmithKline Beecham for their donation, and the Cork STD clinic for their subscription

A large number of subscriptions are still unpaid. GPI depends on these subscriptions to maintain publication and distribution.

SEASON 'S GREETINGS & A HEALTHY 1997

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