Aids Essay, Research Paper

AIDS

In today s society, a disease affects many people, it is called HIV/AIDS. HIV/AIDS has effected many families causing them to deteriorate. So many people are uneducated about the disease, that it frightens them. This report will cover the causes, effects, and treatments for HIV/AIDS.

The causes of HIV/AIDS should be posted all around the community. Unprotected sex is one of the most common ways to contract this deadly disease. Having sex with someone who has not been tested for HIV/AIDS can be dangerous for your health. Your sex partner could have contracted the virus, passing it on to you during sexual intercourse. HIV is also spread by any sharing of needles or syringes that result in direct exposure to the blood of an infected individual. This method of exposure occurs most commonly among people abusing intravenous (IV) drugs (drugs injected into the veins).

2

AIDS

Some people are not familiar with the effects of HIV/AIDS. HIV/AIDS makes the person vulnerable to other diseases. A person infected with HIV/AIDS gradually loses immune function along with certain immune cells called CD4 T-lymphocytes or CD4 T-cells, causing the infected person to become vulnerable to pneumonia, fungus infections, and other common ailments. With the loss of immune function, a clinical syndrome (a group of various illnesses that together characterize a disease) develops over time and eventually results in death due to opportunistic infections (infections by organisms that do not normally cause disease except in people whose immune systems have been greatly weakened) or cancers. He most common opportunistic infection seen in AIDS is Pneumocystis carinii pneumonia (PCP), which is caused by a fungus that normally exists in the airways of all people. Additional bacterial infections of the gastrointestinal tract commonly cause diarrhea, weight loss, anorexia (loss of appetite), and fever. Also, during advanced AIDS, diseases caused by protozoal parasites, especially toxoplasmosis of the nervous system, are common. Many people with AIDS develop cancers, the most common types being B-cell

3

Lymphoma and Kaposi s sarcoma (KS). Kaposi s sarcoma a cancer of blood vessels that results in purple lesions on the skin that can spread to internal organs and cause death occurs mainly in homosexual and bisexual men. Although the cause of KS is unknown, a link between KS and a new type of herpes virus was discovered in 1994. Death from AIDS is generally due not to HIV infection itself, but to opportunistic infections that occur when the immune system can no longer protect the body against agents normally found in the environment.

4

AIDS

Still, after years of research, a cure has not been created for the deadly HIV/AIDS. However there have been several treatments created to slow down the HIV/AIDS effects. Antiviral drugs that attack HIV exploit vulnerable spots in the viral replication cycle. One target is the process of reverse transcription that is, the conversion of the viral ribonucleic acid (RNA) into deoxyribonucleic acid (DNA) that HIV must undergo to be infectious. Reverse transcription is a process unique to retroviruses and is performed by the viral enzyme reverse transcriptase (RT). One class of anti-HIV drugs, known as nucleosides, are all RT inhibitors. Five nucleosides are currently licensed by the U.S. Food and Drug Administration (FDA): zidovudine (Retrovir, AZT), didanosine (Videx, ddI), zalcitabine (Hivid, ddC), stavudine (Zerit, d4T), and lamivudine (Epivir, 3TC). These drugs work as DNA-chain terminators. The most effective treatment against HIV is now considered to be a

5

Combination of three drugs taken together two nucleoside RT inhibitors and one protease inhibitor. Although these drug combinations may cause severe side effects (such as diarrhea, abdominal cramps, and anemia), when taken properly they can reduce blood levels of the virus to undetectable levels. Each drug must be taken according to specific guidelines, however, and one missed dose can allow the virus to quickly mutate to a strain that resists the drugs. Several new therapies for non-genetic disorders are currently being tested. Researchers are attempting to fight Acquired Immune Deficiency Syndrome (AIDS) by using gene therapy to make cells genetically resistant to the infection that causes AIDS..

6

AIDS

In conclusion, HIV/AIDS is a disease that no one would want to contract. If you can , try to prevent sharing needles and having unprotected sex. With the technology today, we might create cure for AIDS .Must of all, get your family and friends to get checked for all diseases, especially, HIV/AIDS.

7

REFERENCES

Gene Therapy,” Microsoft Encarta 98 Encyclopedia.

1993-1997 Microsoft Corporation.

Acquired Immune Deficiency Syndrome,” Microsoft Encarta 98 Encyclopedia.

1993-1997 Microsoft Corporation.

Centers for Disease Control and Prevention

HIV/AIDS Prevention

http://www.thebody.com/cdc/tb177.html

AIDS, THE WORLD BOOK ENCYCLOPEDIA

Page 163-165, 1990-1993 World Book Inc.

8