

Abstract

Objective: AIDS prevention, AIDS patient care and AIDS pathology.

Research Method:

This year is the third year of the second 5-year-program session conducted by AIDS Prevention and Treatment center. The major project of this year is to continue the work, which was done within the first 5-year-program session, of following up those HIV infected patients who have been treated with Highly Active Antiretroviral Therapies(HAART) in National Taiwan University Hospital (NTUH). This program includes the study of opportunistic infections, clinical research, and new virus strain growth. Based on the stable human resource structure, this annual program is to continue elaborating the specialty of this center with all the software and hardware support, focusing on clinical medical service, sustaining on basic research and behavior science as auxiliary, enhance the outpatient service, and improve and unite the study of treatment and side effect of medicine.

Taiwan HIV Study Group (THSG) has been starting progressively gathering all the medical doctors in AIDS designated hospitals in Taiwan to join effort on clinical study, in order to record complete symptoms of HIV infected patients locally, prevention and treatment of opportunistic infections, also especially concern about the willingness of tuberculosis and HIV infected patients to seek medical advice, the high-risk behavior, the analysis of the outcome of drugs for virus resistance, the research of virus resistance gene, the study for virus resistance drugs interrelated metabolism, bone, and mid-term/long-term side effect of cardiovascular deceases. This year, the computer program design has been initially approved, and clinical cases have been developed. For details, please refer to Appendix I.

On the aspect of clinical medical treatment, Dr. Wang Chen-Tai, who is in charge of project “HIV Prevalence Among Patients with Tuberculosis and the Incidence of Developing Active Tuberculous Diseases among Patients Infected with HIV: A Prospective Study”, explored the relevance of tuberculosis patients infected with HIV simultaneously, and HIV infected patients to be infected with tuberculosis sometime in the future. For details, please refer to Appendix II. In addition, Infectious Diseases senior doctor Dr. Hung Chien-Ching, who is in charge of project “A study of the Prevalence of the High-risk HIV Infected Male Homosexuals with Hepatitis A Virus Serum and Vaccine Inoculation in Taiwan Area”, evaluated the positive rate of hepatitis A virus serum of HIV infected patients, especially homosexuals. For details, please refer to Appendix III.

Endocrinologist Dr. Chang Tien-Chun is in charge of project “Evaluation of the effect of Rosiglitazone on HAART-induced insulin resistance and lipodystrophy”. For details, please refer to Appendix IV. Dr. Sheng Wang-Hui devotes himself progressively to the project “Epidemiology and serological markers of HBV of HIV-infected patients and efficacy of HBV vaccination among HIV-infected patients receiving highly active antiretroviral therapy”. For details, please refer to Appendix V. Dr. Hsieh Szu-Min devotes himself progressively to the project “An evaluation of accuracy of the up-to-date speedy saliva test for screening HIV infection”. For details, please refer to Appendix VI.

Regarding molecular epidemiological study, Ms. Yang Hsiu-Chu, under the leadership of Dr. Chen Mao-Yuan, conducts the “The Impact of HAART on the Genetic Evolution of HCV Virus”. For details, please refer to Appendix VII.

In consideration of the widespread influence of HIV infection, including psychological, social, cultural, economical, legal and political factors, how to handle this issue is quite heavy and complicated. Once there's a bias on any aspect, an irrecoverable negative influence could be generated. Therefore, regarding to the behavior science study, social worker Ms. Chang Li-Yu is responsible for “A study to assess the influence that counseling has on the quality of life of people living with HIV/AIDS in Taiwan”. For details, please refer to Appendix VIII. Head nurse Ms. Shih Chung-Ching of NTUH is in charge of “A three-year-program (the second year) outcome evaluation of nursing capability for HIV infected patients by enhancing long-term nursing service”. For details, please refer to Appendix VIII.

In terms of virology study, Assistant Professor Ms. Chang Shu-Yuan is responsible for “The Study of the Trace of Primary Resistance HIV Strains in Taiwan Area”. For details, please refer to Appendix X.

Major discoveries:

According to the most updated statistical materials released by the Center for Disease Control (CDC, subordinate to Department of Health Taiwan), the population of HIV infected patients is over ten thousands people nation-wide. The increasing rate of HIV infected patients is 10 persons per day. In the past, among those reported infection causes for HIV, sexual behavior was always the primary one. However, in year 2005, almost sixty to seventy percents of those new HIV infected patients were drug addicted. It reveals that drug addiction has become a new cause leading to rapid increase of HIV infection. Other than that, the age of HIV infected patients have been found getting younger lately. In the era of e-generation, several causes, such as opening up to sexual behavior, the vogue of sexual rave parties and night clubs, the decreasing usage of condoms nowadays, and the increasing population who inject drugs with needles, lead to speedy HIV spread. The HIV infection is an urgent task which needs everyone in the society to pay attention to and to be confronted with.

On the other hand, since the seventh amendment proposal of the Regulations Governing AIDS Prevention took effect on February 5th, 2005, namely there is a public affairs budget for screening and treatment for AIDS. An evaluation conducted on the basis of present HIV infection increasing rate revealed that the health insurance expenditure spending on nation-wide HIV infection is going to reach an accumulative total of at least 25 billions NT Dollars in year 2011. Furthermore, the health insurance expenditure is to reach an accumulative total up to 100 billions NT Dollars in year 2021. Moreover, other social costs, such as the loss of salary income and social welfare, could be even several times higher than the health insurance expenditure. The loss of the whole society is unbelievably considering to those actual HIV infected population. Therefore, a nation-wide conference “A study and Discussion of Guidance for Screening and Treatment for AIDS and Opportunistic Infections” jointly organized by the Center and Taiwan AIDS Society, was taken place in this March. A proposal was made in the conference that all HIV antiviral medication and HIV/AIDS patients' viral load and CD4 lymphocyte count tests should be included in the

public affairs budget, and should also ensure the point value of AIDS drugs and test expenses to be NT\$1.1. However, the expenses for prevention and treatment for AIDS and interrelated opportunistic infections were temporarily excluded from the public affairs budget. The conference also defined the Guidance (benefit version) for AIDS medication and screening which would become an important reference for future investigation and verification.

Conclusions and suggestions:

In order to enhance the health education and service of our institute and cope with the rapidly increasing drug addicted HIV infected patients, there were many nation-wide large conferences, workshops and educational trainings held this year, including the following:

- (1) “2005 National Seminar on Enhancement of Clinical Medical Treatment and Caring Quality for HIV-infected Patients” was held in Taipei on March 3rd of this year. Dr. Chiu-Bin Hsiao was invited to share the treatment trend in the United States and discuss several related subjects, such as “Therapeutic strategies to minimize drug resistance” and “Update management of HCV/HIV co-infection”, with domestic medical doctors. There were total 108 guests attending the seminar, which were inclusive of medical staff from infectious diseases departments of public & private hospitals and clinics and public health bureaus.
- (2) A one-month training of “The Cultivation and Educational Training Programs for the Medical staff from Designated Drug-Added Treatment Institutions to Enhance their Professional Capability to Help Drug-addicted HIV Patients Abstain from Drugs, as well as their AIDS-related Professional Treatment” had been held in NTUH since June 6th. Fifteen psychiatrists, with more than 3-year experience as residents from drug-addicted treatment institutes designated by the Department of Health, participated in the training program.
- (3) Intravenous injection of drugs has become an oncoming major infectious cause of domestic HIV infection epidemic situation. Therefore, the conference “2005 Seminar on the New Challenges to HIV/AIDS Medical Staff” was held on August 13th. We invited Professor Gerry Stimson from the United Kingdom and Director Mark Casanova from the United States to give out lectures concerning HIV/IDUs epidemic, harm reduction, needle exchange, molecular epidemiology of HIV/IDUs, infectious diseases of HIV/IDUs and domestic medical treatment and caring experiences. A total of 240 participants attending the seminar, including officers of related organizations and medical staff taking care of HIV/AIDS patients. The seminar aimed to help medical staff team up with each other through experiences sharing to tackle this rigorous task, and in the hope to keep good control of HIV infectious situation caused by intravenous injection of drugs.
- (4) A workshop “The Different Phase Therapy Mode for Change of Drug-addicted Behavior” was held on August 15th. We invited Los Angeles Homeless Health Care CEO, Mr. Mark Casanova to host this workshop. The workshop provided participants with basic concept concerning how to change the drug-addicted behavior in difference phases, as well as how to efficiently work with drug-addicted persons. Moreover, the workshop also provided practical drills and two-way experience interchange. There were

230 participants, including clinical doctors, medical personnel, psychologists and social works from private AIDS institutions, AIDS medical institutions designated by Department of Health, public health bureaus and centers, prisons and detention centers and drug-addicted abstention institutes.

- (5) A “Home-care Nursing Staff Training Program for Taking Care of HIV-infected Patients” was held on October 22nd, 2005. The training program included one-day educational training and three-day clinical probation. A total of 25 participants from designated AIDS medical institutions (home-care nursing staff) and nursing homes (nursing staff) received the training programs.**
- (6) A Seminar on Prevention of Mother-to-Child Transmission was held on December 3rd. Prof. Max Essex from Harvard University was invited to give out a lecture concerning anti-retroviral therapy and prevention for pregnancy and infants. In the mean time, several domestic HIV/AIDS specialists also exchanged their experiences and research achievements of the year in this event. A total of 170 persons having interest in HIV/AIDS issues attended the seminar.**
- (7) Individual poster was made with different sanitary academic key subject of AIDS every season, and was posted in every MRT stations and educational institutions, in order to enhance the prevention and treatment knowledge of the public.**

The aforementioned conferences, workshops and training programs were very successful with lots of participants and reached plenty of achievements. We believe that this kind of activity shall be periodically held in the future.

Key words:

Human Immunodeficiency Virus (HIV), Acquired Immunodeficiency Syndrome (AIDS), AIDS Prevention and Treatment Center, Highly Active Antiretroviral Therapies (HAART), opportunistic infections, Taiwan HIV Study Group, HIV infection depending on drugs through intravenous injection