

Epidemiology Bulletin

REPUBLIC OF CHINA

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First AIDS Case in Southern Taiwan

On March 7 1988, a 29-year-old unmarried native male was admitted to the Kaohsiung Medical College Hospital with the presenting symptom of intermittent high fever, dry cough and dyspnea for one month. Before this admission, he had been hospitalized in a private and a public hospital for twenty some days.

The physical examination showed: chronic-ill appearance, BP 130/80 mmHg, pulse rate: 94/min and regular respiratory rate of 60/min. The chest expanded symmetrically and only the coarse breathing sound was audible over the whole lung field. The heart sound was no murmur. The abdomen was flat and soft. Neither liver nor spleen was palpable. No lymphadenopathy was palpated in the neck, axilla or inguinal regions. A perianal scar was noted. No pitting edema on both lower legs was found.

Initial white count was 7200/cm, with lymphocyte 16%, eosinophil 9%. The PaO₂ was 69 mmHg. The chest film showed diffuse interstitial infiltration in both peripheral and basal lung field. The bronchoscopic examination yielded no definite diagnosis and bronchoscopic biopsy showed chronic inflammation of the lung. With the diagnosis of eosinophilic pneumonia, prednisolone in a daily dose of 30-60 mg was administered orally.

On April 1, the young resident physician highly suspected the patient of AIDS with pneumocystic carinii pneumonia, based on the patient's age and sex, physical examination, and the chest film. The open lung biopsy was suggested. But the patient refused open lung biopsy and denied homosexuality or iv drug addition. He was discharged against advise on the following day. On April 22, the patient was admitted to Kaohsiung Medical College Hospital again, due to severe dyspnea, dyspnea on exertion and dry cough. He denied homosexuality and iv drug addition again in spite of the resident physician's questionnaire.

Two days later, the HIV antibody testing was repeatedly positive by ELISA, and subsequently by IFA though the Western blot showed undetermined result. Then the patient confessed himself a practicing homosexual for four years. He had one fixed native partner and ten more uncertain partners, but never had sexual contact with the foreigners.

At the terminal stage, the lymphocyte studies showed absolute lymphopenia (lymphocyte 240/cmm), a reversed T4/T8 ratio(0.6) and a markedly depressed PHA stimulation index 1.63 (control 92.87±9.00) Con A stimulation index 1.45(control 88.44±11.06)PWA stimulation index 1.29(control 32.74±4.01) Polyclonal activation with increased IgA. (849 mg/dl) and IgE(1527.6 Iu/ml) were found by immunoglobulin quantitation.

A serial determination of CMV antibody showed four more times increased in titer. Stool culture showed E coli and Pseudomonas aeruginosa and the sputum culture candida albicans. The lung biopsy under the thoracoscope-guiding was performed. Pathological study showed P. carinii pneumonia without evidence of cytomegalovirus or other infection.

During hospitalization, TMP-SMX in a high daily dose 20 mg/kg trimethoprim and 100mg/kg of sulfamethozazol was administered parenterally. Pentamidine 4 mg/kg im daily, AZT 200mg po Q4h , antibiotics and antifungal agents were included.

On May 6, respiratory failure with conscious disturbance developed, then he was intubated with a volume-cycled respirator to correct the hypoxemia(PaO_2 :31.9mmHg). Three days later, hypoxemia and severe dyspnea cyanosis appeared. The blood pressure dropped gradually and sinus bradycardia on the EKG monitor which evolved into the cardiac arrest. The cardiopulmonary resuscitation was performed immediately but patient succumbed to respiratory failure on May 9 1988. At autopsy the lungs were firmly consolidated and stiff. The extensive P. carinii pneumonia was the major finding.

We summarize that it was a biopsy-proved and autopsy-confirmed case of AIDS. The patient had been a practicing homosexual for four years He had a fixed partner and ten more uncertain partners. There was mention of receptive oral and anal sexual behavior. This is the 5th reported AIDS in Taiwan, the first in the Southern Taiwan, and the first indigenous case. The patient never had any sexual contact with the foreigners. The fact suggested that HIV has been spread among the homosexuals and to the Southern area of Taiwan. Therefore, the Sero-epidemiological surveillance of the risk groups should be strengthened, and the doctors should be urged to be more alert to. This case was diagnosed by the resident physician base on the clinical manifestation, chest film and lab data, despite of patient's initial denial of homosexuality.

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Editorial Note: Of the more than 400,000 samples screened for HIV

antibody, 66 positive ones have been found: of them, 7 are foreigners, one overseas Chinese, and 58 indigenous (17 homosexuals, 33 hemophilias 1 transfusion-associated patient, 5 STD patients, one candida albicans infection patient, and one cytomegalovirus patient). Of them, 5 have developed AIDS, including two transit passengers of foreign homosexuals one hemophilic patient, one homosexual in Taipei City, and this one in Tainan City.

According to the WHO statistics, by 30 April 1988, there were 88,081 AIDS cases throughout the world³. They were reported by 136 countries and areas, only 37 countries and areas in the world have not reported any cases. The Americas have the most cases, 73%; next in Africa, 13%. The surveillance in Africa is incomplete, the reported number could be an underestimate. Further analysis of the sources of infection in the Americas and Europe show that male homosexuals and bisexuals are still the majority (59% in Europe and 65% in the Americas), and then the intravenous drug addicts (20% in Europe and 17% in the Americas). 64% of cases in Italy are intravenous drug addicts, and in Spain 53%. Most cases in other European countries are homosexuals, 88% in the Netherlands, 87% in UK, 86% in Denmark, 81% in Sweden, 79% in Norway, and 76% in West Germany. Hence, a basic principle in the prevention of AIDS is to maintain normal sexual behavior and life style. The chances of being infected with AIDS are very rare if one stays in the traditional way of life, and avoids use of intravenous drugs or frequent transfusion of blood products.

References:

1. 衛生署：國際後天免疫缺乏症候羣個案數，疫情報導，民國七十七年第四卷第三期。
2. 王致時、葛應欽：後天免疫不全症候羣流行病學，當代醫學雜誌，13:185-190, 1986
3. World Health Organization: Acquired Immunodeficiency Syndrome (AIDS) - Data as at 30 April 1988. WHO WER, 1988; 63:138-139.
4. Centers for Disease Control: Update Acquired Immunodeficiency Syndrome (AIDS) - Worldwide, MMWR 1988, 37:286-295.