Indonesian Journal of
Tropical and Infectious Disease
Vol. 5. No. 1 January–March 2014

Literature Review

CLINICAL DESCRIPTION AND DIAGNOSIS OF HIV/AIDS

Suryono[1], Nasronudin[1,2]
[1] Infectious and Tropical Disease Division - Department of Internal Medicine, Dr. Soetomo Hospital Airlangga University School of Medicine
[2] Institue of Tropical Disease - Airlangga University

ABSTRACT

Infections of HIV/AIDS currently has become very serious problems for the world health. In the country the first case of HIV/AIDS was discovered in Bali in 1987, in its progress has not the meaning but after 1985 HIV transmission increased considerably. The complex problem that the living and the increasing number of cases should indeed, medical practitioners understand more the clinical and how to diagnose infections of HIV/AIDS. A snapshot of the clinical HIV infection/aids can be seen from grievances and a disease that often accompanies it, a complaint which is found at HIV/AIDS sufferers in the form of suds retroviral acute: fever, weight loss, diarrhea chronic, disphagi, limpadenopati, infections in the skin respiratory disorders and nervous breakdown center. While a disease that often been gained by those with HIV / AIDS as candidiasis, tuberculosis, pneumonia bakterialis, toksoplasmosis and pneumonia pneumocystic carinii. Diagnose HIV infection created based on clinical symptoms which includes major symptoms and symptoms of minor, and the result of the examination of the laboratory.

Key words: *HIV, AIDS, transmission, epidemiology, infectious*

ABSTRAK

Infeksi HIV/AIDS saat ini telah menjadi masalah yang serius bagi dunia kesehatan. Di Indonesia kasus HIV/AIDS pertama kali ditemukan di Bali tahun 1987, dalam perkembangannya tidak mengalami perkembangan yang berarti akan tetapi setelah tahun 1985 penyebaran HIV meningkat dengan tajam. Kompleknya permasalahan yang dihadapi ODHA dan semakin meningkatnya jumlah kasus ini perlu kiranya praktisi kesehatan lebih memahami gambaran klinis dan cara mendiagnosis infeksi HIV/AIDS. Gambaran klinis infeksi HIV/AIDS dapat dilihat dari keluhan dan penyakit yang sering menyertainya, keluhan yang sering ditemukan pada penderita HIV/AIDS berupa sindroma retroviral akut: demam, penurunan berat badan, diare kronis, Disphagi, limpadenopati, infeksi pada kulit, gangguan pernapasan dan gangguan saraf pusat. Sedangkan penyakit yang sering didapatkan pada penderita HIV/AIDS seperti kandidiasis, tuberkulosis, pneumonia bakterialis, toksoplasmosis dan pneumonia pneumocystic carinii. Diagnose infeksi HIV dibuat berdasarkan gejala klinis yang meliputi gejala mayor dan gejala minor, serta hasil pemeriksaan laboratorium.

Kata kunci: *HIV, AIDS, transmisi, epidemiologi, infeksi*

INTRODUCTION

HIV/AIDS infection currently has become very serious problems for the world health. AIDS first found in 1981, but identification of the virus that causes aids new found about 1983–1984.[1,2] This virus were given the name of the human immunodeficiency virus (HIV) that can be found the body fluid especially blood, a liquid sperm, vaginal discharge, and water milk mother. AIDS has been scattered more than 150 countries, until December 2000 58 million people estimated to be infected with HIV, 22 million have died, 3 million died the year 2000.Two thirds of the number of HIV found in the countries of Africa, part of Sahara Africa about 70% and in asia pacific more than 20%.16.000 world's people estimated to be infected with HIV in every day.[1,3,4]

In the country the first case of HIV/AIDS was discovered in Bali in 1987, in its progress has not the meaning but after 1985 HIV transmission increased considerably. Since 1999, there are new phenomenon of the spreading of HIV/AIDS cases included HIV infection started looking for a drug injection users or infecting drug users (IDU). In both groups

IDU happening quickly because of the use of hypodermic needles together. The 2000 increase the pandemics are explicitly through sex workers (dept. of health, 2003). In 2002, they are prone to get HIV in the country among the 13 million to 20 million, the people living with HIV/AIDS (ODHA) an estimated 90,000 people until we got 130,0005.

The problems facing OPDHA very complex, includes physic health problem because decrease CD4, because their physical health psychological problems as shock, depression, denial, angry and sad and sorry and also psychological problem as isolated, expelled from the lives and so on.[6]

The complex problem that the living and the increasing number of cases should indeed, medical practitioners understand more the clinical and how to diagnose infections of HIV/AIDS. This will be the following clinical and diagnoses of HIV/AIDS infections.

HIV/AIDS CLINICAL DESCRIPTON

The clinical description HIV/AIDS can be seen from the disease, a disease that is often found and often accompanying.[1,7,8]

THE ROUTE OF HIV/AIDS

Beginnings arise after HIV infection retroviral acute, called suds, this decline in suds is showed CD4 increasing RNA-HIV levels (and viral load). CD4 count tend to decline gradually within a few years with CD4 faster rate of decrease in 1.5–2,5 years before patients fall in a state of AIDS. Viral load going up fast at the start of an infection and then went down to a point. With continued infectious viral load gradually rising. In the late phase diseases will be found cd4 count & it; 200/mm^3, onset, followed an opportunistic infection the emergence of certain cancers weight down quickly and complication of neurological.[5,9,10]

Symptoms from HIV divided into 4 steps:

Acute Infection Stage: no symptoms typical, arising after 6 first week be either fever, taste tired muscle pain and joints, pain ingest, and enlargement of lymph nodes. May also accompanied inflammation of the membranes of the brain (meningitis aseptic she fever, headache, spasms and nerve paralysis the brain.

Asimtomatic Stage: at this stage usually without symptoms and complaint, this stage can last six weeks to months even years after infection.

Simtomatic Stage light to severe: at this stage weight declining not until 10%, thrush that recurs at the mouth, inflammation of the angles of the mouth, can also found bacterial infection of the breath the top but sufferers can doing activities normal. On the stage that further decline weight more 10%, diarrhea that more than 1 months, heat unknown s why over a month, candidiasis oral, oral hairy leukoplakia, pulmonary tuberculosis, and pneumonia bacteria. At this stage of lying in bed more than 12 hours a day during last month.

Aids stage: at this stage sufferers was attacked by one or several kinds an opportunistic infection, e.g. pneumocystis carinii, toxoplasmosis the brain, diarrhea due to kriptosporidiosis, viral disease sitomegalo, a viral infection herpes, candidiasis esophagus, trachea, the bronchi or lungs and fungal infection other histoplasmosis, e.g. koksidiodomikosis. Can also found some cancers; e.g. cancer lymph nodes and sarcoma.[5,9,10]

SYMPTOMPS RELATED ON HIV/AIDS

1. **Fever:** rushes often found in people with HIV, CD4 the number could help in evaluating and distinguish a likely cause its fever. On early disease (CD4 > 500) cause fever can occur because of tuberculosis, pneumonia or an acute infection of HIV her. Midstage disease (CD4 200–500) can occur because the spread tubrkulosis or pneumonia. In adults with sexual activity active could by sexual because transmitted disease or infection anorektal. Late disease (CD4 75–200) fever can occur because infection opurtunistic like pneumocystis carinii or malignansi. Another causes can because the spread of tuberculosis, nonthypoid bacteriemia, salmonella bartonellosis, and fungal infection histoplasmosis, and cryptococcosis. Advanced disease (CD4 < 75) all diseases in late disease can occur in this stage and can be found mycobacterium avium complex and infection cytomegalo virus1,[10,12]
2. **Diarrhea chronicle:** diarrhea can be caused for infection, fierceness or HIV his own. Infection can be caused by clostridium: defficile, salmonella, campylobacter, shigella, entamoeba histolytica; giardia lambia, isosporabelli, enterovirus, and strangyloides stecoralis. In late disease besides cause above may also caused by cryptosporidium parvum microsporidium and directorate. On advanced disease can occur because mycobacterium avium complex and citomegalovirus1,[10,12]
3. **Dysphagia:** dysphagi often accompanied by odynophagia and can be developed into a esophagitis. In midstage disease can occur sprue and esophageal disconfort. On late disease can occur infection mucous esophagus kandida accompanied with a lesion in the mouth. On advanced disease equal to late disease but often found infection citomegalo viruses and ulcer aphthous.[1,12]
4. **Respiratory disorder:** can happen because bacterial infection of pyogenic, mikobacterium, fungi, parasitic, virus and ferocity of lymphoma or sarcoma sarcoma. This complaint be either shortness or cough[12]. In late disease can occur because pneumocystis carinii, fungal infection coccidiodes immitis, cryptococus neoformis

or histoplasma capsulatum, can also occurred sarcoma sarcoma. On advanced disease besides cause above can be found again pseudomonas aeuruginosa and aspergilus species especially on the circumstances of netropenia or in hospital.[1]

5. **Skin Infection:** infection in the skin can be varied to suit imunosupresinya degrees. On early disease be either rash, lesions because sexual transmited disease, folliculitis, impetigo, ecthyma and sellulitis. On midstage disease can occur mucocutaneous candidiasis, oral hairy leukoplekia, shingles, psoriasis, dermatitis seborreic, and dermatitis atopy. In late disease skin infection that occurred previously become more chronic and refractory to therapy, can also occurred infection opurtunistic (cryptococcolis or histoplasmosis) and can occur lesion on skin. On advanced disease lesion on the skin not typical so it takes biopsy to its diagnoses, can occur bacillary angiomatosis and moluscum contangiosum.[1]
6. **Central Nerve Disorder:** central nervous breakdown can include the status change, mental and pain the changing status the kognitive mental disorder; impairment of consciousness, delirium and it is psychosis. In early may occur aseptic meningitis disease happens because of its own. On disease midstage aseptic meningitis may become more frequent and chronic meningitis. In late disease can occur cryptococcal meningitis, toxoplasma encepalitis and AIDS dementia complex. On advanced disease the disease may occur in late on this phase and often accompanied prymary CNS lympoma.[1]
7. **Limphadenopathy:** caused by bacterial infection, syphilis; mikobakterium, a virus or fungus, may also caused skin disorder wide as dermatitis seborroik, and pioderma, when swollen lymph nodes happened two locations excess of 1 centimeter, and lasted more than three months called persistent generaled limphadenopathy (PGL). PGL arising during over 50 percent living, is symmetrical, no pain, often in glands behind ears and epitrochlear.[12]
8. **Weight loss:** weight loss is a complaint often obtained in people with HIV, weight loss in line with the progesifitas disease spread. When weight loss more than 10% accompanied diarrhœa chronic over a month or fever over a month not caused another disease called HIV wasting syndrome.[5,13]

HIV/AIDS CLINICAL MANIFESTATION

1. **Candidiasis:** fungal infection kandida this could be this infection at the folding moist, paronychia, angles of the mouth, balanitis, and onychomikosis. Symptoms clinical usually more weight if there infection of the oral mucous, pharinx, and genital. An opportunistic infection by kandida usually more easy to when there is infection bacterium or virus other staphylococcal, like streptococcus, mikobakterium avium complex, cytomegalo herpes viruses and simplek or abrasion the skin and mucosa which are port' entry for kandida to get in circulation and next an undesired effect pathological on an organ local for example in eyes occurring retinitis and endopthalmitis. Candidiasis can cause malnutrition on living due to the lurch swallow (disfagi) and pain ingest (odinofagi).[6]
2. **Tuberculosis:** infection by mycobacterium tuberkolose occurs more frequently in HIV/AIDS sufferers compared with the general population, infection this could happen on all stadium HIV infection and usually occurs in CD4 about 400/ml^3. In an advanced state of the risk of infection mikobakterium tuberkolose by those with HIV 8–10% per year. Marriott, (Smith, 1997; Merati, 2004). Of this number is far higher in a developing country like Indonesia where tuberkolosis is still in endemi (Merati, 2004). Tuberkolosis can be a manifestation of the beginning of HIV so that patients who terdiagnose tuberkolosis should be thought to do with HIV infection especially to a group of high risk are infected with HIV, manifestasinya can include infection of the pulmonary (pulmonary tuberculosis) or infection outside/extra pulmonary stenosis (Smith, 1997; Merati, 2004). TB extra stenosis occurs more frequently in HIV to 70% in the general population, TB extra stenosis this may include: limpadenitis TB, the genital tract infections, urinary, the nerve center and spinal cord. The diagnoses built upon: disease history, the risk of HIV. Photographs thorax hilum, which looks gland enlargement lung, infiltrate at the apex effusion of the pleura, cavity pulmonary or tuberculosis a billion.[6]
3. **Pneumonia bacterialis:** at the HIV pneumonia with bacteria pyogenic occur more often than the general population, but germs the cause same as: streptococci pneumonia, hemopilus influenza, and brahamella catarrhalis. Can also occurred infection with staphylokokus aureus, and gram-negative bacteria. Symptoms may include high heat a sudden, asphyxiate, chest pain, and coughing productive with sputum being purulent. Can also occurred lung infection chronicle suppurative and sinusitis (Smith, 1997). Pneumonia bacterialis often occurs in cd4 & it; 250/ml^3, while suppurative infections happens when cd4 & it; 100/ml^3.[12,14]
4. **Toxoplasmosis:** infection by toxoplasma gondii is an opportunistic infection that often occurs in HIV infection. Common symptom infection toksoplasmosis be either high fever headache and vomiting vomiting, may also form of symptoms ensepalitis neurological or focal plane, as headache, spasm, impaired function cognitive and impairment of consciousness. In disorders more difuse can occur symptoms sudden accompanied fever and spasms or existing bleeding intra cerebral, disorientation, mental disturbance and comma. In the eye can happen retino choroiditis while in mielopathia can occur weakness ektremitas with impaired sensory

and disorders spinter. Diagnose can be made by complaint above accompanied ct a brain scan shown any lesions multiple ring-shaped, the picture is that clearer by contrast or with MRI, lesions lie in cortico-medullary junction or in basal ganglia. Serology tests can help where obtained immunoglobulin G (IgG) a specific for toksoplasma.[6]

5. Pneumonia pneumocystic carinii: pneumonia pneumocystic carinii (ppc) was opportunistic infection frequently found on the HIV (Smith AI, Morris A 2002), in america rate occurrence 70–80% on all the HIV who do not get propilaksis (Zimmerman, 1994). PPC often arise if CD4 < 200/ml^3, symptoms can light to severe form of: dry cough, asphyxiate progressive start from tightness while working until shortness at rest, fever and sweating.[11,15] Photograph roentgen thorax PPC on light, maybe normal, or a little hormonal perihilar, on PPC are occurring abnormality difuse interstitial bilateral shadowing, and at PPC heavy no abnormality that extensive form of bilateral interstitial alveolar and marking. To examination gas blood, PPC light show pao2 normal, and saturation oxygen declining while working, PPC being PaO2 between 60–80 mmHg, PPC and heavy PaO2 & it; 60 mmHg.[11] The diagnosis made based on to be above accompanied microscopic examination to identify pneumocystis of sputum, preparation broncoalveolar fluid or lung tissue and PCR.[11,15]

HIV/AIDS DIAGNOSIS

The diagnosis of HIV infection/aids can be made based on clinical classification organization or CDC (see appendix 1 and 2) (Levy, 1993). In Indonesia diagnose aids for the purposes of epidemiology surveillance made if showing HIV testing positive and lack of symptoms was obtained 2 major and one minor symptoms.[7]

Symptoms Major

1. The weigh decrease more than 10% in 1 month
2. Chronic diarrhea for a month
3. Fever more than a month
4. Impairment of consciousness and neurological disorders
5. Dementia/HIV encefalopati

Symptoms Minor

1. Cough more than a month
2. Dermatitis generalisata
3. Herpes zoster multisegmental and or repeated
4. Kandidiasis oro-faringial
5. Simplek chronic progressive herpes
6. Limfadenopati generalisata
7. Fungal infection of recurring at female genitals
8. Retinitis cytomegalovirus

When acquired one mark/symptoms down here, reported as AIDS cases, without examination laboratory:

1. Sarkoma Kaposi
2. Repeated pneumonia and Life-threatening

HIV EXAMINATION

To detect a person suffering from HIV, the test can be done directly on the HIV virus or indirectly by way of finding an antibody. If someone found antibodies against HIV infected with HIV (Fauci, 2003; Dept. of health, 2004). Inspection strategy for diagnostic lab can be seen in annex.[3]

HIV Serology Examination

Examination first antibodies against HIV can be used rapid a test to tapis test, when acquired positive results done reexamination by using test that having the basic principle different and or using preparasi antigens different of the tests first, usually used enzym-linked immunosorbent assay (ELISA). When available means could pretty conducted trial confirmation to western blot (WB), indirect immunofluorescence assays (IFA), or with radioimmunoprecipitation assay (RIPA) (Depkes, 2003; Crowe, 2004) other checks that can be used to detect antibodies tyerhadap hiv can be used material of saliva (OraSure) and urine (Calypte HIV-1 Urine ELISA).[1]

HIV VIRUS

HIV virus in the body could be detected by a polymerase chain reaction (PCR) technology. This technique was done if the serology test several times not conclusive; in order to make sure there is someone at phase of a window (a window period) to be knowing HIV infection on the baby, and to the interest in certain research. PCR this method includes DNA-PCR can, PCR, RNA (b) DNA assay and p24 antigen joined the.[2]

HIV RISK FACTORS

HIV epidemiological risk factors infection covering (Depkes, 2001):

1. Behavior risky (now or past)
   - sexual intercourse goggle- sexual partners high risk without use condoms
   - narcotics addict syringe
   - sexual intercourse unsecured
     - having many sexual partners
     - sexual partners known patient HIV/AIDS
     - sexual partners from villages in prevalence HIV aids that a high
     - homosexual

2. Workers and customers entertainment as: massage parlor, discotheque, karaoke or prostitution veiled
3. Have the acts of sexually transmitted infection (IMS)
4. The acts of received transfusions blood recurring
5. The acts of wound leather, tattoo, piercing, sirkumsisi or with an instrument not sterile.

SUMMARY

HIV infection has become a serious breakdown in health, the disease have an impact of crimes against victims, their families and surroundings so we needed getting the prompt, therefore understanding to picture clinical and manner diagnoses should be perceptible by practition health.

A snapshot of the clinical HIV infection/AIDS can be seen from grievances and a disease that often accompanies it, a complaint which is found at HIV/AIDS sufferers in the form of suds retroviral acute: fever, weight loss, diarrhea chronic, disphagi, limpadenopati, infections in the skin respiratory disorders and nervous breakdown center. While a disease that often been gained by those with HIV/AIDS as candidiasis, tuberculosis, pneumonia bakterialis, toxoplasmosis and pneumonia pneumocystic carinii. Diagnose HIV infection created based on clinical symptoms which includes major symptoms and symptoms of minor, and the result of the examination of the laboratory.

REFERENCE

1. Zavasky DM et al. (2001). Special Patient Populations Patients With AIDS. In: a Lange Medical book Current Diagnosis & Treatment in Infectious Disesase. Editors Wilson WR et al. McGraw-Hill, New York, p. 315–327.
2. Fauci AS and Lane AC. (2003). Epidemiologi HIV/AIDS, in: Harrison Principle of Internal Medicine. Editor Braunwald et al. 15th Ed, New York, p. 1852–1861.
3. French RF et al. (1997). How HIV produces immune deficiency. In: Managing HIV. Editor Stewart GJ. Australasian medical publishing Co. Limited, Sydney, p. 22–28.
4. Unaids/WHO (2002). AIDS Epidemic Update, Geneva. Available from: Http/www.Unaids,org /en/resources. Accessed 2/11/2004
5. Departemen Kesehatan Republik Indonesia (2003). Pedoman Nasional Perawatan, Dukungan dan Pengobatan bagi ODHA. Depkes, Jakarta.
6. Merati TP (2004). Gambaran Klinis dan Diagnosis Mutahir HIV/AIDS. Dalam Naskah Lengkap Workshop HIV/AIDS, Editor Akmal Sya'roni, Lembaga Penerbit Bagian IPD FK Unsri. Hal. 7–26.
7. Departemen Kesehatan Republik Indonesia (2001). Pedoman Tatalaksana Klinis Infeksi HIV di Sarana Pelayanan Kesehatan. Depkes, Jakarta.
8. Gerberding JL. (2003). Occupational exposure to HIV in Health Care Settings. New England Journal of Medicine. Vol. 348; p. 826–833.
9. Levy JA. (1993). Pathogenesa of HIV infection. Microbiol Rev 57: p. 183–189.
10. Carr A, Boyle MJ. (1997). Primary HIV infection. In: Managing HIV. Editor Stewart DJ. Australasian medical publishing Co. Limited, Sydney, p. 9–10.
11. Smith AI and Pigot PC. (1997). HIV and Respiratory disease. In: Managing HIV. Editor Stewart GJ. Australasian medical publishing Co. Limited, Sydney, p. 87–90.
12. WHO (1998). Clinical Management of HIV and AIDS at District Level. World Health Organization Regional Office for South Asia, New Delhi.
13. Kelly DM et al. HIV. (1997). weight loss and wasting syndrome. In: Managing HIV. Editor Stewart GJ. Australasian medical publishing Co. Limited, Sydney, p. 113–114.
14. Departemen Kesehatan Republik Indonesia (1998). Surveilans AIDS. Katalog dalam terbitan Departemen Kesehatan 616.979.2, Jakarta.
15. Thomas CF and Limper AH. (2004). Medical Progress Pneumocyctis Pneumonia, New England Journal of Medicine, Vol. 350; p. 2487–2498.
16. Crowe S and Mills J. (2003). AIDS & Other Virus Infections of the Immune System, In: A Lange Medical Book Medical Immunology. Editor Parslow TG. 10 th edition, McGraw-Hill, New York, p. 636–654.