

Infeksi Human Immunodeficiency Virus pada Pasien Tuberkulosis di Puskesmas Kotaraja Papua

Herlando Sinaga¹, Ester Rampa², Anni Erna Woriori³

^{1,2} Analis Kesehatan, Universitas Sains dan Teknologi Jayapura, Indonesia

³ Akor Farma Pharmacy, Indonesia

Article Info

Article history:

Received, Apr 05th 2022

Revised, Aug 11th 2022

Accepted, Sept 09th 2022

Keyword:

Human Immunodeficiency Virus, Tuberculosis Patients, Infection

ABSTRACT

Human Immunodeficiency Virus (HIV) is a virus that attacks white blood cells and causes the human immune system to decrease. Tuberculosis in HIV patients is an opportunistic infection that will aggravate the disease infection in patients. Examination of HIV (Human Immunodeficiency Virus) in Tuberculosis Patients was carried out at the Kotaraja Health Center. This study was conducted for 1 month starting from May 17, 2019, to June 07, 2019. The purpose of this study was to determine HIV in tuberculosis patients at the Kotaraja Health Center. This type of research is descriptive with a laboratory test approach. The sample used is a serum sample with a diagnosis of HIV. The method used in this examination is the Rapid Test method. The results of HIV testing on tuberculosis patients, sample data obtained from HIV tuberculosis co-infected respondents amounted to 30 HIV respondents who took tuberculosis treatment >6-9 months, negative 6 patients (20%).

ABSTRAK

Human Immunodeficiency Virus (HIV) merupakan virus yang menyerang sel darah putih yang menyebabkan kekebalan tubuh manusia menjadi menurun. Penyakit tuberkulosis pada pasien HIV merupakan infeksi opportunistic yang akan memperberat infeksi penyakit pada pasien. Pemeriksaan HIV (*Human Immunodeficiency Virus*) Pada Pasien Tuberkulosis dilakukan di Puskesmas Kotaraja. Penelitian ini dilakukan selama 1 bulan mulai tanggal 17 Mei 2019 sampai dengan 07 Juni 2019. Tujuan dari penelitian ini untuk mengetahui HIV pada pasien tuberkulosis di Puskesmas Kotaraja. Jenis penelitian ini adalah deskriptif dengan pendekatan uji laboratorium. Sampel yang digunakan adalah sampel serum dengan diagnosa HIV. Metode yang digunakan dalam pemeriksaan ini yaitu metode Rapid Test. Hasil pemeriksaan HIV pada pasien tuberkulosis data sampel yang telah diperoleh dari responden koinfeksi tuberkulosis HIV berjumlah 30 responden HIV yang melakukan pengobatan tuberkulosis > 6-9 bulan menunjukkan subjek penderita HIV yang diperoleh 30 sampel pasien keseluruhan memiliki hasil positif berjumlah 24 pasien (80%) sedangkan negatif berjumlah 6 pasien (20%).

Kata Kunci : Human Immunodeficiency Virus (HIV), Pasien Tuberkulosis, Infeksi

Introduction

Tuberculosis (TB) is a chronic infectious disease caused by *Mycobacterium tuberculosis* infection and can be cured. Tuberculosis can spread from one person to another through airborne transmission (tuberculosis patient sputum droplets). Patients infected with tuberculosis will produce droplets containing a number of

tuberculosis bacilli when they cough, sneeze or speak. People who inhale the bacilli of the tuberculosis germ can become infected with tuberculosis. (WHO 2016)

Tuberculosis is a chronic infection of lung tissue caused by *Mycobacterium tuberculosis*. This disease is easily contagious and infects all ages. The symptoms caused depend on the stage of the disease. Primary infection in young patients or children is characterized by a small focus on one lung. Diagnosis can be made by performing a chest x-ray to find out abnormalities that occur in the lungs so that treatment efforts are known. (Depkes, 2013) Tuberculosis in HIV patients is an opportunistic infection that occurs because of 2 infections that occur with different case agents in the form of *Mycobacterium tuberculosis* bacteria and the Human immunodeficiency virus experienced by tuberculosis patients with HIV positive and HIV patients with tuberculosis (Amin et al, 2013).

Tuberculosis and HIV have a strong relationship because with HIV infection, tuberculosis cases have increased, on the contrary, tuberculosis also increases HIV progression. HIV infection is a risk factor for the development of tuberculosis through mechanisms such as reactivation of latent infection, progression to primary infection, or reinfection with *Mycobacterium tuberculosis* it will increase tuberculosis cases in the community. This coinfection with HIV and tuberculosis raises various new problems, including incorrect diagnosis because it is difficult to establish a diagnosis, high morbidity/death rate during treatment, drug resistance, and various social, cultural & economic problems that need greater attention from various parties.

Method

This research is a descriptive study. The study was carried out at the Kotaraja Health Center within a period of 1 month, from 17 May 2019 - to 07 June 2019. The population in this study were all tuberculosis patients seeking treatment at the Kotaraja Health Center. The sample used in this study was the total population, namely all tuberculosis patients at the Kotaraja Health Center who came during the study.

The sample is serum from tuberculosis patients. Tri-line anti-HIV test. Rapid test and the sample is left at room temperature. The rapid test is removed from the package and placed on a flat surface. The sample was dropped as much as 1 drop and 1 drop of the buffer. The sample was allowed to stand for 15 minutes then read the results immediately. Anti-HIV test with Oncoprobe. Rapid test and the sample is left at room temperature. The rapid test is removed from the package and placed on a flat surface. 1 drop of serum/plasma is dropped into the sample hole (S), then 1 drop of the buffer is added and the timer is run. The sample was allowed to stand for 15 minutes then read the results immediately. Anti-HIV testing with Vikia. Rapid test and serum were left at room temperature. The rapid test is removed from the package and placed on a flat surface. Serum/plasma is dripped as much as 3 drops into the sample hole (S). The sample is allowed to stand for 5-30 minutes then read the results immediately. Post-Analytical The interpretations of this examination are as follows:

Reactive: If a line is formed in the control (C) and test (T) windows.

Non-Reactive: If only 1 control window line is formed (C)

Invalid: If no line is formed in the control window (C)

Result and Discussion

Table 1. Data on HIV Examination Results in tuberculosis patients at the Kotaraja Health Center.

No	Variable	Subjects with HIV				Total number	
		P	%	N	%	P + N	%
1	HIV sufferers based on the results of the examination	24	80	6	20	30	100

Source: Data Prime (2019)

Information :

P : Positive

N : Negative

P + N : Positive+ Negative

Based on Table 1, shows that subjects with HIV who received 30 samples of patients had a positive result of 24 patients (80%) while the negative were 6 patients (20%). The total number of patients who came was 30 patients during the 1 month study period. Based on table 1, the HIV examination on the sample of tuberculosis patient data obtained from HIV tuberculosis co-infected respondents found 30 HIV respondents who were taking tuberculosis treatment >6-9 months indicating that there were 24 patients with HIV infection (80%) while the negatives were collected 6 (20%). HIV or Human Immunodeficiency Virus is a virus that attacks the human immune system and then causes AIDS. HIV attacks a type of white blood cell CD-4 cells that are deposited during infection. The cause of HIV is during vaginal, anal, or oral sex with an HIV-infected partner, semen or vaginal fluids enter the body, besides transfusion, in some cases, the blood virus can be transmitted through transfusion. HIV can also be transmitted through sharing needles, the HIV can be transmitted through needles contaminated with infected blood.

HIV can be passed from mother to child. An infected mother can infect the baby during pregnancy or delivery, or through breastfeeding. Based on Aini's research, Sexual (2017) HIV/AIDS sufferers increase along with transmission to the community which then transmits HIV to their sexual partners. In addition, HIV transmission from HIV-infected mothers to their babies tends to increase along with the increasing number of HIV-infected women because their partners are having sex outside the home and are not aware of this when they have sexual intercourse using contraceptives (ko) so that they become infected. HIV. Based on Depkes (2014) The cause of the increased risk of HIV infection among other users of injection needles followed by free sex compared to spread is due to other things. They sell sex to fulfill their need to buy drugs in addition to their own biological needs. Worse yet, a third of them do not use condoms and do not practice safe sex. Whereas unsafe sexual relations and not using condoms are the main factors in the spread of HIV. 30% of men used a condom the last time they had sexual intercourse with their partner, both legal and informal.

Based on the WHO (2015) the spread of HIV is currently more focused on injecting needles users among drug users and the habit of smoking, drinking alcoholic beverages, and risky sexual behavior is a risk factors for increasing drug abuse and HIV infection since men have 30 times the risk. more likely to smoke, 10 times more likely to drink alcohol, 20 times more likely to abuse drugs, and 5 times more likely to have casual sex than women. So that there is a serious risk of spreading HIV to women if they have a partner who is at high risk of drug abuse and sexual behavior increases HIV infection in their partner.

Based on research conducted by UNAIDS (2016) this is partly due to a lack of knowledge from health workers about HIV/AIDS. Besides that. there is still discrimination and stigma in society which causes the attitude of health workers who do not care about people with HIV/AIDS to be worse. Some health workers are afraid that they will be infected with HIV if they come into contact with people living with HIV/AIDS. Based on Wahyuni's research (2017) no factor is most prominent or has the most influence on the spread of HIV. All factors are interrelated because each factor affects the other. Improving health services is very important to prevent the spread of HIV. One of them is from health workers, the community knows about HIV and how to prevent its transmission. The government should pay special attention to each province with high HIV/AIDS cases.

Conclusion

The results of HIV testing on tuberculosis patients, sample data obtained from HIV tuberculosis co-infected respondents amounted to 30 HIV respondents who took tuberculosis treatment >6-9 months, negative 6 patients (20%).

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