Correlation Analysis Of HIV Stadium With Opportunistic Infection In Pregnant Women At Ibnu Sina General Hospital Gresik

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ABSTRACT

HIV-AIDS is an infectious disease caused by infection with the Human Immunodeficiency Virus. HIV can be transmitted through sex, blood transfusions, sharing needles and mother-to-child transmission (perinatal). Heterosexual risk factors were the highest, namely 82.8%, followed by homosexuals by 7.4% and perinatal by 4.0%. At Gresik Regency in 2016, was found that the number of HIV sufferers had increased by 29% from 2015. This study aimed to identify the relationship between HIV Stadium and Opportunistic Infection in Pregnant Women At Ibnu Sina General Hospital Gresik. This non-reactive research use analytic cross-sectional design. Sample was taken using total sampling technique. Secondary data were taken since 2013- March 2018 using data collection sheets and analysis using chi-Square test (alpha: 0.05). The results showed there were 29 pregnant women with HIV-AIDS, 96.6% of patients came from Gresik Regency, and 3.4% from outside, the most of age group were > 25-30 years (34.5%), 96.6% of respondents had married, education was mostly high school (58.6%), most respondents (75.9%) had no opportunistic infections, HIV stadium at level asimtomatik reached 51.7% and simtomatik stadium level reach 48.3%. There was a correlation between the stadium of HIV and opportunistic infections with p-value 0.011. So that it needs optimal attention especially the provision of ART therapy and treatment of opportunistic infection in pregnant women.

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I. Introduction

HIV / AIDS is a global health problem, which no country in the world to avoid this problem. HIV / AIDS is a challenge and a double burden in the financing of health sector development. Number of HIV / AIDS cases in Indonesia since 2011 through 2013 are likely meningkat1. The number of new HIV-positive cases reported in Indonesia in 2015 reached 30 935 cases, while the cumulative cases of AIDS in 2015 reached 77 112 cases. 2016 reported 41 250 new HIV cases reported in March 2017 and up to 10,376 new cases of HIV2. HIV can be transmitted through sexual intercourse, blood transfusion, sharing needles and transmission from mother to child (perinatal). Heterosexual risk factors is the highest, at 82.8%, followed by homosexual by 7.4% and 4.0% perinatal 3.

East Java is the largest contributor to the Province of the highest HIV cases into two after Jakarta and the number of AIDS in Indonesia outperformed Papua in order to-Dua2. The death rate from AIDS is also the highest in Indonesia. This number will continue to increase every year,

including Gresik. Since 2001 to the present trend of prevalence of HIV / AIDS in Gresik to increase, even in 2012 the prevalence of HIV / AIDS in Gresik the top three highest in Java Timur4. In 2014 the prevalence of HIV / AIDS in Gresik reached 530 people, 61.32% of patients with male sex-laki5.

In 2016, an unknown number of people living with HIV has increased by 29% from 2015 IPPA East Java province reported that Gresik is ranked 5th most cases of AIDS in Java Timur6. A person infected with HIV will become infected for life. Most PLWHA (People Living with HIV AIDS) remain asymptomatic or without signs and symptoms of a disease for a long time and is not known to have been infected. Nevertheless, it has been able to infect others. Hospital Ibnu Sina Hospital of Gresik is the regional referral center HIV-AIDS in Gresik and the surrounding area. Ibnu Sina Hospital is also a referral center and extension of the VCT program at 6 Puskesmas working area of Gresik District Health Office. Each patient with HIV-AIDS in reference to Ibnu Sina Hospital will receive antiretroviral treatment (Anti Retroviral Therapy) for free. Checks periodically become routine poly VCT Hospital Ibnu Sina Gresik, treatment of opportunistic diseases in HIV-AIDS sufferers is also done centrally in hospitals Ibnu Sina Gresik, so that researchers interested in conducting further studies on the stage of HIV conjunction with opportunistic diseases experienced by pregnant women with HIV.

II. Method

This study is a non-reactive, with a cross-sectional analytic design. The sampling technique used is total sampling.

Independent variables in this study were HIV Stadium, with the dependent variable that Opportunistic Infections. Secondary data from the medical records of Ibnu Sina Hospital of Gresik and poly VCT 2013 - March 2018 retrieved using cross-sectional data collector sheet. Data collected in the tabulation and analyzed using SPSS univariate and bivariate. Correlation analysis was performed using Chi-square test with alpha 0:05

III. Results and Discussion

The results showed that there were 29 respondents with a diagnosis of HIV in Ibnu Sina Hospital of Gresik in 2018. The demographic characteristics of the respondents and bivariate analysis of dependent and independent variables are described in some of the tables below:

1. Distribution of Respondents by Region

Distribution of respondents by Region described in Table 1.1.

Table 1.1 Distribution of Respondents by Region

Area	total	Percentage
Gresik	28	96.5
outside Gresik	1	3.5
Total	29	100

Table 1.1 shows 96.5% of respondents were from Gresik.

2. Distribution of Respondents by Age Group

Distribution of Respondents by Age Group described in Table 1.2.

Table 1.2 Distribution of Respondents by Age Group

Age Group (years)	total	Percentage
20-25	8	27.6
> 25-30	10	34.5
> 30-35	6	20.7
> 35-40	5	17.2
Total	29	100

Table 1.2 shows the majority of respondents were in the age group> 25-30 years (27.6%), and 17.2% of respondents aged> 35 to 40 years.

3. Distribution of Respondents by Marital Status.

Distribution of Respondents Based Marital status can be seen in Table 1.3 below.

Table 1.3 Distribution of Respondents by Marital Status

Marital status	total	Percentage
Married	28	96.6
Widow	1	3.4
Total	29	100

Table 1.3 shows the majority of respondents were married (96.6%), and 3.4% widowed.

4. Distribution of Respondents by Education Level

Based Distribution Education Level Respondents described in Table 1.4.

Table 1.4 Distribution of Respondents by Education

Education	total	Percentage
SD	3	10.3
SMP	8	27.6
High School	17	58.6
PT	1	3.4
Total	29	100

Table 1.4 shows the majority of the respondents had a high school education level (58.6%) and a small portion of Higher Education (PT) (3.4%).

5. Distribution of Respondents by Job and Risk Factors

Distribution of Respondents Based Work and the risk factors described in Table 1.5.

Table 1.5 Distribution of Respondents Based Work and Risk Factors

Work	total	Percentage
Work	29	100
Does not work	0	0
Total	29	100
Risk factors	total	Percentage
heterosexuals	29	100
homosexual	0	0
bisex	0	0
perinatal	0	0
Transfusion	0	0
drug	0	0
Total	29	100

Table 1.5 shows all respondents are working mothers and have risk factors for heterosexual (100%).

6. Distribution of respondents by HIV Stadium

Distribution of Respondents Based HIV Stadium is described in Table 1.6.

Table 1.6 Distribution of Respondents Based HIV Stadium

HIV Stadium	total	Percentage
asymptomatic	15	51.7
symptomatic	14	48.3
Total	29	100

Table 1.6 shows 51.7% of respondents are in the asymptomatic stage and 48.3% in the symptomatic stage

7. Distribution of respondents by Opportunistic Infections

Respondents Based Opportunistic Infections distribution is described in Table 1.7.

Table 1.7 Distribution of Respondents Based Opportunistic Infections

Opportunistic Infections	total	Percentage
No IO	22	75.9
There IO	7	24.1
Total	29	100

Table 1.7 shows 75.9% of respondents did not experience opportunistic infections, but 24.1% had opportunistic infections.

8. Cross tabulation Stadium HIV Opportunistic Infections

Cross tabulation Stadium with Opportunistic Infections HIV is described in Table 1.8.

Table 1.8 Cross Tabulation Stadium HIV Opportunistic Infections

HIV Stadium	Opportunistic Infections		Total
	There is no (%)	There is (%)	
asymptomatic	16 (55.2%)	1 (3.4%)	17 (58.6%)
symptomatic	6 (20.7%)	6 (20.7%)	12 (41.4%)
Total	22 (75.9%)	7 (24.1%)	29 (100%)

Table 1.8 shows most respondents in the asymptomatic stage did not develop an opportunistic infection (55.2%), while respondents in the symptomatic stage of opportunistic infections reached 20.7%.

9. Analysis of Relationship Stadium HIV Opportunistic Infections
Analysis of the relationship with Opportunistic Infections HIV Stadium is described in Table 1.9.

Table 1.9 Analysis of Relationship Stadium HIV Opportunistic Infections

variables	N	df	Exact Sig. (2-sided)
Stadium HIV * Opportunistic Infections	29	1	0011

Table 1.9 shows the relationship between HIV and Opportunistic Infections stage, with a p-value 0.011 Fisher's Exact test. The determination of significance using Fisher's exact test because there are 50% of the cells that have a value expected value <5.

Discussion

The discussion in this study include characteristics of pregnant women with HIV-AIDS and HIV-stage relationship analysis results with opportunistic infections in pregnant women with HIV. The demographic characteristics of HIV-AIDS in Ibnu Sina Hospital of Gresik include: characteristics based on region, age, marital status, education, work, risk factors, HIV and Opportunistic Infections Stadium. At the end will be discussed the results of analysis of the relationship between independent and dependent variables.

Pregnant HIV-AIDS in Ibnu Sina Hospital of Gresik mostly natives Gresik, only a small proportion of HIV-AIDS patients come from outside the region Gresik. This fact suggests that the demographic factor in expected to trigger increased prevalence of HIV-AIDS, especially in areas with high population migration. Based on the results of a qualitative study conducted in Kudus through in-depth interviews to explore the experience of the sexual behavior of HIV-AIDS to find any factors of transmission of HIV-AIDS among migrant workers is a risk intercourse, sexual assault, sexual contact with a person infected with HIV had unprotected, came Localization / PSK complex and buy seks7. Judging from the layout of the city district government of Gresik, Gresik as an industrial city, recorded 63 large industries and 324 medium industries in the District Gresik5, there are seasonal residents who come from outside the region or Gresik in relatively high amounts. In addition, based structure known population migration out of the region, especially in males is high, for example, working as Indonesian workers (TKI) abroad. This is in line with the results of penelitian8 entitled "Study About Migrant Workers From Rural Dalegan Panceng District of Gresik to Malaysia" explained that the District Panceng Dalegan Village Districts with the highest percentage is a migrant worker in Gresik. The results of this study, the one risk factor for HIV and contributes to an increase in the number of HIV-AIDS cases in Gresik.

The age group of pregnant women with HIV are of childbearing age between> 25-30 years, this condition is also an outcome of previous HIV cases, such as the Ministry of Health reports first quarter 2017 stating that HIV cases in the age group of 20-24 years has increased from the previous year to reach 7154 kasus2. However, this condition is very different from HIV-AIDS prevalence among pregnant women in sub-Saharan Africa, as dijelaskan9, the results of research that explains the HIV prevalence declined significantly among women aged 15-24 years while increased significantly among women 35-49 years, the research results represent 15% of pregnant women explain that HIV prevalence in sub-Saharan Africa has shifted towards older women and less fertile. Patients with HIV-AIDS in Ibnu Sina Hospital of Gresik most married. The results are consistent with what is done in the hospital penelitian10 Yowari Jayapura regency, Papua stating marital status married a risk factor for HIV-AIDS means HIV-AIDS cases occurred in patients with a history of sexually active. The results of cross-sectional study with a consecutive sample of pregnant women in Lima, Peru which has dilakukan11 reported 22.6% of pregnant women with HIV are married. Results lain12 conducted in 29 countries in Africa and Latin America reported some behavioral and social factors may increase the vulnerability of young women married to HIV infection. First, young women often have sex without a condom, in most countries, known for more than 80% of teens have sex without a condom during the week before the marriage. Second, young married women who tend to have many husbands were older (average age difference, 5-14 years), a factor that can increase the likelihood of their husbands are infected with HIV.

The education level of the average HIV is high school, high school education level was not classified as a low education level, with a good education be a good guarantee of sexual behavior. But the education level affects the person's knowledge. Results penelitian13 reported that 50% of the low level of knowledge about the low impact of prevention efforts (65%), the results of bivariate analysis there is a relationship between knowledge and prevention ($p = 0.000$, $OR = 35.2$). Education also affects the treatment, such as the results penelitian14 in Tanzania concluded that the decision to start ARV mainly depends on the level of education and knowledge about ARVs.

Pregnant women with HIV in Ibnu Sina Hospital of Gresik entirely is the mother works and has the status of heterosexual risk factors. The results are consistent with the results of research conducted in Sanglah bali which reported 55.90% of HIV patients have risk factors heteroseksual15. Heterosexual sexual behavior that is described in the multivariate logistic regression model, showing people who are married or living together with people living with HIV were significantly more likely to be sexually active and less likely to use condoms. More than 80% of people living with HIV do not know their HIV status. Most people living with HIV in Kenya and Malawi are unaware of their HIV status and are sexually active, especially people living with HIV who are married or living bersama16.

Analysis of HIV-stage relationship with opportunistic infections in hospitals Ibnu Sina Gresik showed no significant correlation. WHO HIV-stage split into four (4) clinical stage which is a

modification of the Eastern Cooperative Oncology Group criteria Score by adding signs and symptoms fisik17 activity. Most pregnant women with HIV in hospitals Ibnu Sina Gresik in the category of clinical stage I (asymptomatic), where there are no symptoms or complaints and physical activities the patient is still normal, but almost half of pregnant women experience symptoms or in the stage of symptomatic even enter the stadium AIDS. The development stage is influenced by the viral load of HIV in plasma (viral load) and the results of counting CD4 T-cells. The higher the amount of virus in the body, the lower the CD4 cell counts and higher changes and kematian17 progression to AIDS. The decline in the number of CD4 cells will lead to a stricken people living with HIV opportunistic infections, providing antiretroviral therapy (antiretroviral) and management of opportunistic infections should be done together, because treatment can reduce the incidence of opportunistic infections and prolong life expectancy.

Opportunistic infection that occurs in pregnant women at Ibnu Sina Hospital was Hepatitis, candidiasis and tuberculosis. This fact is almost identical to the results of research conducted at the Adam Malik Hospital stating that there are 35.3% people living with HIV who suffer from opportunistic infections such as oral thrush, with the number of CD4 count <200 cells / ml (80.7%) 18. the provision of antiretroviral therapy (antiretroviral) and management of opportunistic infections should be done together, because treatment can reduce the incidence of opportunistic infections and prolong life expectancy. Opportunistic infection that occurs in pregnant women at Ibnu Sina Hospital was Hepatitis, candidiasis and tuberculosis. This fact is almost identical to the results of research conducted at the Adam Malik Hospital stating that there are 35.3% people living with HIV who suffer from opportunistic infections such as oral thrush, with the number of CD4 count <200 cells / ml (80.7%) 18. the provision of antiretroviral therapy (antiretroviral) and management of opportunistic infections should be done together, because treatment can reduce the incidence of opportunistic infections and prolong life expectancy. Opportunistic infection that occurs in pregnant women at Ibnu Sina Hospital was Hepatitis, candidiasis and tuberculosis. This fact is almost identical to the results of research conducted at the Adam Malik Hospital stating that there are 35.3% people living with HIV who suffer from opportunistic infections such as oral thrush, with the number of CD4 count <200 cells / ml (80.7%) 18.

IV. Conclusion

There is a correlation between the stage of HIV Opportunistic Infections In Pregnant Women in Ibnu Sina Hospital of Gresik. Optimal care required especially antiretroviral therapy and treatment of opportunistic infections in pregnant women.

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