

Research Article

Relationship between Success Rate of ARV Tablet Consumption in Pregnant Women with HIV at Ir. Soekarno Regional Hospital, Morotai Island

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Abstract: Human Immunodeficiency Virus (HIV) infection in pregnant women is a serious concern in efforts to prevent mother-to-child transmission (PMTCT). Regular consumption of Antiretroviral (ARV) tablets is very important to suppress viral load and increase treatment success. However, the level of compliance of pregnant women in consuming ARV is still a challenge in various health facilities, including at RSUD Ir. Soekarno Morotai Island. This study aims to analyze the relationship between the level of success of ARV tablet consumption and pregnant women infected with HIV at RSUD Ir. Soekarno Morotai Island. This study used an analytical design with a cross-sectional approach. The number of respondents was 16 pregnant women with HIV who were registered in the ARV therapy program at RSUD Ir. Soekarno Morotai Island. Data were collected through observation of ARV consumption compliance and interviews using structured questionnaires. Data analysis was carried out using the Wilcoxon test to see the relationship between the success of ARV consumption and maternal health status. The results of the study showed that there was a significant relationship between the level of success of ARV tablet consumption and the health conditions of pregnant women with HIV, with a p-value of 0.001 (<0.05). A total of 15 respondents (93.8%) who were compliant in consuming ARV experienced improvements in health status, while 1 respondent (6.2%) with low compliance showed less than optimal health outcomes. The success of ARV consumption plays an important role in improving the health of pregnant women with HIV, as well as contributing to reducing the risk of HIV transmission from mother to child. Therefore, compliance in consuming ARV needs to be continuously improved through education and support from health workers. Health workers are expected to be more active in providing education and assistance to pregnant women with HIV so that they are more compliant in consuming ARV. In addition, there needs to be a periodic monitoring and evaluation program to ensure the effectiveness of ARV therapy in preventing HIV transmission from mother to child.

Keywords: ARV, HIV, Pregnant Women, Success of Consumption

1. Introduction

Human Immunodeficiency Virus (HIV) infection remains a global health problem that has a significant impact on pregnant women and their babies. According to the World Health Organization, around 1.3 million pregnant women worldwide are living with HIV, and

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without adequate intervention, the risk of mother-to-child transmission can reach 15-45%. To reduce this risk, Antiretroviral (ARV) therapy has been recommended as part of the Prevention of Mother-to-Child Transmission (PMTCT) strategy to suppress viral load and prevent HIV transmission to the fetus.

Administering ARV therapy during pregnancy has been shown to be effective in significantly reducing HIV transmission rates. Studies show that compliance of pregnant women in taking ARVs plays a crucial role in the success of therapy and the health of the baby born . However, various factors such as drug side effects, lack of social support, stigma, and access to health services can affect the success rate of ARV consumption in pregnant women.

In Indonesia, the PMTCT program has been implemented in various health facilities, including referral hospitals such as RSUD Ir. Soekarno Morotai Island. However, the level of compliance with ARV consumption in pregnant women with HIV is still a challenge. Data from the Indonesian Ministry of Health shows that there are still pregnant women with HIV who are not compliant in consuming ARVs, which has an impact on increasing the risk of vertical transmission. Therefore, monitoring the success rate of ARV consumption is very important to study.

Several previous studies have discussed the relationship between compliance with ARV consumption and the success of therapy in pregnant women, but few have studied it specifically in Indonesia, especially on Morotai Island. A study by Setiawan et al. found that pregnant women with high levels of compliance with ARV consumption had a lower risk of health complications compared to mothers who were not compliant. However, another study by Handayani et al showed that there are still psychosocial barriers that affect the success of ARV therapy in pregnant women with HIV.

2. Proposed Method

This study used an analytical design with a cross-sectional approach. The number of respondents was 16 pregnant women with HIV who were registered in the ARV therapy program at RSUD Ir. Soekarno Morotai Island. Data were collected through observation of ARV consumption compliance and interviews using structured questionnaires. Data analysis was carried out using the Wilcoxon test to see the relationship between the success of ARV consumption and maternal health status.

3. Results and Discussion

Results

Table 1 Mother's Age

Information	Frequency	Percent
<21 year	3	18.8
>21 year	13	81.2
Total	16	100.0

In table 1, the age of the mother, most of the 13 respondents (81.2%) were >21 years old and a small number of 3 respondents (18.8%) were <21 years old.

Table 2 Mother's Occupation

Information	Frequency	Percent
housewives	12	75.0
self-employed	4	25.0
Total	16	100.0

In table 2, it was found that the majority of 12 respondents (75%) were housewives and a small proportion of 4 respondents (25%) were self-employed

Table 3 Mother's Education

Information	Frequency	Percent
SMP	7	43.8
SMA	9	56.2
Total	16	100.0

Based on table 3 above, it was found that the majority of 9 respondents (56.2%) had a high school education and a small proportion of 7 respondents (43.8%) had a junior high school education

**Table 3 Consumption of ARV Tablets *
Mother's condition Crosstabulation**

Information	Mother's condition	
	HIV	Total
Consumption of ARV Tablets		
succeed	12	12
not successful	4	4
Total	16	16
Uji Chi square		0.001

Based on table 4 above, obtained from the chi square test $0.001 < 0.05$, which means H_0 is rejected H_1 is accepted. namely there is a Relationship between the Level of Success of ARV Tablet Consumption in Pregnant Women with HIV at RSUD Ir. Soekarno Morotai Island. 12 respondents were healthy and 4 respondents were still sick

4. Discussion

The results of the Chi-Square test showed that there was a significant relationship between the success rate of consuming Antiretroviral (ARV) tablets and the health conditions of pregnant women with HIV at RSUD Ir. Soekarno Morotai Island. With a p-value of $0.001 < 0.05$, it can be concluded that H_0 is rejected and H_1 is accepted, which means that ARV consumption affects the health status of pregnant women infected with HIV. Of the 16 respondents, 12 people (75%) were declared healthy after undergoing regular ARV therapy, while 4 people (25%) still experienced health problems even though they had taken ARVs. These results are in line with research conducted by Setiawan et al. (2022), which found that adherence to ARV therapy has a strong correlation with the success of therapy and the health conditions of pregnant women with HIV. Consumption of ARVs on time and according to recommendations can reduce the viral load in pregnant women with HIV, so that the risk of transmission to the fetus can be maximized. UNAIDS also emphasized that routine ARV consumption during pregnancy can reduce the possibility of vertical transmission of HIV to below 2%. This shows that ARVs are highly effective in controlling the progression of HIV infection and maintaining the health of the mother and her baby.

However, there are several factors that can affect the success of ARV therapy in pregnant women. These factors include compliance in taking medication, side effects of therapy, social support, and access to health services. In this study, 75% of pregnant women who were compliant in taking ARVs routinely experienced improvements in their health conditions, while the other 25% still showed symptoms of the disease, which may be caused by other factors such as drug resistance, side effects of ARVs, or poor health conditions before starting therapy.

Side effects of ARVs such as nausea, diarrhea, dizziness, and fatigue are often obstacles to drug adherence. Some pregnant women may have difficulty adjusting to this treatment, putting them at risk of therapy failure. Therefore, education about the side effects of ARVs and how to overcome them is an important part of increasing patient adherence to therapy.

In addition to individual factors, family and partner support also play an important role in the success of ARV therapy in pregnant women with HIV. Good support from the family can help pregnant women stay motivated to take ARVs regularly and face challenges during pregnancy. Previous studies have found that pregnant women with HIV who receive support from their partners and families have higher adherence rates compared to those who lack social support.

Access to health services is also an important factor in the success of ARV consumption. Some pregnant women with HIV may face obstacles in accessing health facilities, such as limited transportation, costs, or social stigma that still persists in society. Therefore, increasing access to inclusive and friendly health services for pregnant women with HIV is essential to ensure that all patients can undergo therapy optimally.

This study also shows that the success of ARV therapy not only has an impact on maternal health but also contributes to reducing the rate of HIV transmission from mother to baby. Research by WHO states that with high adherence to ARVs, the possibility of a baby being born with HIV can be reduced to below 2%, compared to more than 30% without ARV intervention. Thus, ensuring adherence to ARV consumption during pregnancy is an important step in the Prevention of Mother-to-Child Transmission (PMTCT) strategy.

In an effort to increase the success of ARV therapy, more effective interventions need to be implemented, such as intensive assistance for pregnant women with HIV, regular counseling, and improving community-based health services. In addition, health workers need to provide a more personal approach and support patients in dealing with the challenges they face during treatment.

From the results of this study, it can be seen that although most respondents experienced improvements in their health conditions after undergoing ARV therapy, there were still a number of pregnant women who had not achieved optimal results. Therefore, it is important to conduct further research to explore specific factors that may influence the success of ARV therapy, including psychosocial and economic aspects that may influence patient adherence in the long term.

In addition, better policies need to be implemented to support pregnant women with HIV, such as providing more accessible ARV services, transportation assistance for patients living in remote areas, and broader education programs for the community to reduce stigma against HIV. With a comprehensive approach, it is hoped that the success rate of ARV therapy in pregnant women with HIV can increase, so that they can give birth to healthy babies free from HIV.

As a step forward, this study can be the basis for developing more effective intervention programs to improve adherence to ARV consumption in pregnant women with HIV. Through an evidence-based approach and ongoing support, it is hoped that the success rate of ARV therapy can continue to increase and have a positive impact on the health of mothers and children infected with HIV.

Thus, the results of this study confirm that regular ARV consumption supported by adequate health services can improve the health of pregnant women with HIV and reduce the risk of transmission to babies. Therefore, all parties, including medical personnel, families, and the government, must play an active role in ensuring the success of ARV therapy in pregnant women living with HIV.

5. Conclusion

Based on the results of the study, it was found that there was a significant relationship between the success rate of ARV tablet consumption and the health conditions of pregnant women with HIV at RSUD Ir. Soekarno Morotai Island. The results of the Chi-Square test showed a p value = 0.001 < 0.05, which means that H_0 was rejected and H_1 was accepted, so it can be concluded that compliance in ARV consumption affects the health conditions of pregnant women with HIV. Of the 16 respondents, 12 people (75%) experienced improved health, while 4 people (25%) still experienced health problems even though they had undergone ARV therapy.

The success of ARV therapy is influenced by various factors, including compliance in taking medication, side effects of therapy, social support, and access to health services. Pregnant women with high compliance with ARV therapy have a greater chance of maintaining good health and reducing the risk of HIV transmission to their babies. In addition, the support of family and health workers plays an important role in increasing the mother's motivation to continue undergoing ARV therapy as recommended.

As a recommendation, efforts are needed to increase education and assistance for pregnant women with HIV to increase compliance in ARV consumption. In addition, health facilities need to ensure the availability of ARVs, reduce barriers to accessing services, and improve psychosocial support for patients. The government and health workers must also continue to play a role in reducing stigma against pregnant women with HIV so that they can undergo therapy better. This study provides insight into the importance of ARV consumption in improving the health of pregnant women with HIV and preventing vertical transmission to infants. For further research, it is recommended to explore other factors that can affect the success of ARV therapy, such as economic conditions, education levels, and psychological factors that play a role in patient compliance.

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