

PRINCIPLES OF DEVELOPING ADHERENCE TO ART IN CHILDREN WITH CONCOMITANT SOMATIC DISEASES

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ABSTRACT: The study found that comorbidities such as psychological disorders and chronic illnesses may influence treatment adherence among HIV-infected children. Family support and psychosocial support are important for successful treatment. Comprehensive education and support programs are needed to improve adherence to antiretroviral therapy in HIV-infected children.

KEYWORDS: HIV infection, children, adherence to ART, mortality, Psychological factors, adults.

INTRODUCTION

Currently, in the dynamics of the human immunodeficiency virus (HIV) epidemic, the number of patients who need antiretroviral therapy (ART) in the key stages of the disease is growing in geometric progression. Adherence to treatment, adherence to the medication regimen is an important factor in determining the effectiveness of drugs. The emergence of ARTV has brought to the fore the issue of adherence to ART. At least 95% of the recommended dose of the drug is required to be effective in reducing HIV replication. Highly active combination antiretroviral therapy (ART) significantly improves the health of HIV-infected children [1]. ART results in lower plasma HIV RNA levels, increased CD4+ cell counts, improved immunological function, reduced incidence of opportunistic infections, improved growth and development, reduced risk of mortality, and fewer hospitalizations. [2]. Suboptimal adherence to antiretroviral drugs is common among children [3]. Compared to adults, children and adolescents have more difficulty adhering to an ART regimen. First, children, unlike adults, are dependent on parents/guardians who are HIV positive or on non-biological medications. Children's loyalty can change according to developmental stages, for example, due to psychological problems during adolescence. The

rational choice of drugs, that is, the choice of antiretroviral drugs, is important in the treatment of HIV infection. Adherence to the schedule of taking drugs, that is, the procedure that implies strict adherence to the schedule of taking antiretroviral drugs, is one of the main conditions for successful suppression of viral activity. Regular administration of drugs ensures a stable maintenance of therapeutic drug concentration in the blood, which is very important to prevent the development of resistance to antiretroviral drugs and to maintain the effectiveness of long-term treatment [2][5]. Patient awareness, which includes educating patients and their caregivers about HIV, the importance of strict adherence to physician's orders, and the potential consequences of not following medical instructions, is an important aspect of successful HIV treatment. Educating patients about the natural state of the disease, the importance of viral load and CD4 levels, as well as the consequences of poor adherence to treatment, helps to develop a responsible attitude towards patients [4][6]. Educational programs Implementation of educational programs aimed at understanding the characteristics of HIV infection and the importance of adherence to antiretroviral therapy can significantly increase treatment adherence. Educational activities help patients and their families understand the importance of taking medications regularly and following medical instructions to achieve optimal treatment outcomes[3][7].

THE MAIN FINDINGS AND RESULTS

Adherence to antiretroviral therapy in HIV-infected children was analyzed using questionnaires conducted with children and their caregivers and parents, as well as recommendations proposed by WHO. was evaluated on the basis of information about the level. Adherence to ART was determined for each participant, taking into account regularity of medication intake and compliance with medical recommendations. Data were analyzed using statistical methods. Ethical considerations: The study was conducted in accordance with the principles of voluntary participation and data confidentiality.

1. The largest percentage of children infected with HIV (41.3%) are patients aged 18 years. This may indicate a vertical (mother-to-child) route of infection in children. It may also reflect earlier data on HIV, given that prevention of mother-to-child transmission of HIV has improved significantly in recent years.
2. The second largest group (31.8%) corresponds to children aged 17 years. It should be noted that the rate of infection is reduced to almost 10% of the previous age group, which may be due to the improvement of early diagnosis and prevention programs of HIV in newborns.
3. A significant decrease in the percentage of HIV patients is observed in the age groups from 16 to 3 years old, and their values are distributed as follows: 9.5% (16 years old), 3.9% (15 years old), 4.5% (14 years old), 2.8% (13 years old) and then gradually decreases to 0.6% in the 3rd age group. This decline can be attributed to more effective prevention programs, better access to early testing and treatment, and improved education programs for new mothers.
4. The low percentage of infections among the youngest children, the values observed in the 3-5 age group (0.6%) may indicate mother-to-child transmission of HIV and/or better practices to

prevent early death among HIV-infected children, in turn, we can understand the reason for this is the small number of children living with HIV in these age groups.

The analysis of this data should also take into account the following:

- Changing demographic trends: the overall number of children infected with HIV may decrease over time due to improvements in prevention and access to treatment.
- Socioeconomic Factors: Differences in percentages may reflect socioeconomic differences and availability of medical care in different regions.
- Treatability: Increased antiretroviral treatment for HIV-infected pregnant women may reduce vertical transmission.

CONCLUSION

Findings from studies of the health status of HIV-infected children may be directly related to the impact of comorbidities on adherence to antiretroviral therapy (ART).

As noted, one of the key aspects of successful HIV management is adherence to ART. However, evidence suggests that HIV-infected children have comorbid conditions such as respiratory disease, persistent fever, oropharyngeal candidiasis, and others. These diseases can affect adherence to treatment for a variety of reasons, e.g:

Physical: Children with comorbidities may experience physical discomfort (fatigue, poor appetite, etc.) that may make it difficult to take medications and adhere to ART regimens.

Psychological factors: Long-term or chronic conditions such as HIV encephalopathy can affect patients' mental state and motivation to follow doctors' recommendations. For example, a patient suffering from a chronic disease may doubt the effect of ART.

Difficulties in treatment: Some underlying conditions, such as oropharyngeal candidiasis, may require additional treatments or medications, making it difficult to take regular HIV medications. Thus, research data highlight the importance of not only effectively treating comorbidities, but also helping patients to successfully adhere to ART recommendations. This includes not only medical treatment, but also psychological support, education of patients and their families, convenience and affordability of treatment. Ultimately, improved co-morbidity management may improve ART adherence and ultimately improve prognosis and quality of life in children living with HIV.

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