

Autological Manifestations of HIV/Aids Patients

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Abstract

Background: Human immunodeficiency virus (HIV) / acquired immunodeficiency syndrome (AIDS) infection is a global pandemic. An estimated 34 million people are currently infected with this virus worldwide, two-thirds of whom live in sub-Saharan Africa; 50% are women and 2.5 million are under 15 years old. AIDS is a deadly disease that weakens the body's immune system, leaving the victim vulnerable to life-threatening opportunistic infections, neurological disorders, or unusual malignancies. Approximately 80% of HIV patients are initially infected with ENT symptoms. Manifestations of AIDS in the head and neck area can affect the skin, ear, upper aerodigestive tract, and neck. Objective: To determine the otologic manifestations that occur in patients infected with Human immunodeficiency virus (HIV) / acquired immunodeficiency syndrome (AIDS). Design and Method: Literature-review. Conclusion: Ontological manifestations are signs and symptoms that occur in patients related to the ear and do not require an audiological examination to identify them. There is evidence that 30-50% of adults with HIV/AIDS have hearing loss, with this rate being higher in pediatric patients with HIV. It is often accompanied by symptoms such as ear pain, otorrhea, dizziness, and hearing loss. The current standard of care is to treat people with HIV infection with antiretroviral therapy (ART) as soon as possible, both to improve their own health and to reduce the risk of transmitting HIV to others. In the world, there are 23 million people currently living on ART medication.

Keyword: *Human immunodeficiency virus (HIV); acquired immunodeficiency syndrome (AIDS); manifestation; otologic;*

Introduction

Acquired immunodeficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV), the etiologic agent that causes significant immunologic impairment in individuals with AIDS. Currently, an estimated 34 million people worldwide are infected by this virus, of which two thirds live in sub-Saharan Africa; 50% are women and 2.5 million are under the age of 15. AIDS is a disease that compromises the immune system and leaves the victim vulnerable to life-threatening opportunistic infections, neurological disorders, or unusual malignancies. The manifestation of HIV infection is a state of severe immune deficiency caused mainly by a reduction in CD4 T lymphocytes. This condition results in high rates of opportunistic diseases, especially infections and neoplasms. Approximately 80% of patients with HIV infection initially present with ENT symptoms. Manifestations of AIDS in the head and neck may involve the skin, ears, upper gastrointestinal tract, and neck (Bakhshaei et al. 2014).

The incidence of hearing loss among patients with HIV/AIDS ranges from 20% to 40% and hearing loss may be due to pathology of the outer, middle and/or inner ear. Upper respiratory tract infections, and especially sinusitis, otitis externa, and otitis media, are among the most common infections in people with AIDS. It is known that otitis media can cause temporary hearing loss and must be treated at the periphery so that adequate medical treatment can be instituted. These individuals may also exhibit cochlear pathology/inner ear disorders due to direct viral action and use of antiretroviral drugs and/or potentially ototoxic drugs, which can cause sensorineural hearing loss (Carla G Matas et al. 2020).

Method

This article was written using various sources from the scientific journal Health. Source searches were conducted on online portals for journal publications such as Google Scholar (<https://scholar.google.co.id/schhp?hl=en>), National Center for Biotechnology Information / NCBI (<https://www.ncbi.nlm.gov/>) and Medscape (<https://emedicine.medscape.com/>) with the search keywords using " Otologic manifestations of HIV/AIDS".

Literature Review

Definition

Human Immunodeficiency Virus (HIV) is a type of virus that infects white blood cells which causes a decrease in human immunity. Acquired Immune Deficiency Syndrome (AIDS) is a collection of symptoms that arise due to decreased immunity caused by infection with HIV. HIV sufferers require treatment with antiretroviral (ARV) to reduce the amount of HIV virus in the body so that it does not enter the AIDS stage, while AIDS sufferers need ARV treatment to prevent opportunistic infections with various complications (Kemenkes 2020). These retroviruses primarily attack cells associated with the immune system, triggering a progressive reduction of lymphocytes and hence causing opportunistic infections. HIV is transmitted through sexual

intercourse, blood transfusions, injection drug use, work accidents and perinatal transmission (Carla Gentile Matas et al. 2014).

Epidemiology

Since the recognition of acquired immunodeficiency syndrome (AIDS) in 1989, the epidemic has assumed a global presentation, since then infections have been increasing and international epidemiologists and experts in the field of HIV/AIDS infection studies have even estimated that in 2000 the number of infected patients may have reached 26-40 million (Opoku-Buabeng and Dompok 2012). The incidence of HIV infection in 2009 was 2.6 million, while the respective prevalence ranged from 31.4-35.3 million people. HIV prevalence has increased by 27% over the previous decade, although the annual rate of new cases has continued to decline since the late 1990s. In addition, the estimated number of children living with HIV increased to about 2.5 million in 2009 (Iacovou et al. 2012).

The most recent estimate by the United Nations Joint Program on HIV/AIDS (UNAIDS) is that there are 36.7 million people living with HIV, of whom 2.2 million are children. In 2016, there were 1.0 million AIDS-related deaths worldwide, of which 120,000 were children. South Africa, a lower-middle income country, is reported as one of the countries with the highest prevalence of HIV/AIDS in the world; with 7.1 million people living with HIV in 2017, including 320,000 children under the age of 14 (ages 0 - 14). Globally, there are more than 2.5 million pediatric patients living with HIV, with 90% of them in sub-Saharan Africa (Khoza-Shangase and Anastasiou 2020).

In Indonesia itself tends to fluctuate, data on HIV AIDS cases in Indonesia continues to increase from year to year. As in the picture below, it can be seen that during the last eleven years the number of HIV cases in Indonesia reached its peak in 2019, which was 50,282 cases. Based on WHO data in 2019, there were 78% of new HIV infections in the Asia Pacific region. The highest AIDS case for the last eleven years was in 2013, which was 12,214 cases (Kemenkes 2020).

Otologic Manifestations

HIV/AIDS causes otologic manifestations in three ways:

1. HIV is the main cause;
2. Secondary/opportunistic infection is the cause
3. Ototoxic drugs used during treatment

Otologic manifestations are signs and symptoms present in patients related to the ear and do not require an audiological assessment to identify them. Otologic manifestations may include otalgia, otorrhea, tinnitus, vertigo, ear fullness, hearing loss, otitis media, and otitis externa. Evidence suggests that 30 - 50% of adults with HIV/AIDS have hearing loss, with this number reported to be higher in pediatric patients with HIV. Ontological manifestations commonly seen in the general population of children with

HIV/AIDS include acute otitis media; which is often accompanied by symptoms of otalgia, otorrhea, vertigo, and hearing loss (Khoza-Shangase and Anastasiou 2020).

Management

The current standard of care is to treat people with HIV infection with antiretroviral therapy (ART) as soon as possible, both to improve their own health and to reduce the risk of transmitting HIV to others. Standard initial treatment currently consists of a daily three-drug regimen consisting of two NRTIs in combination with a third drug, either an integrase inhibitor, a non-nucleoside reverse transcriptase inhibitor, or a protease inhibitor. More than 23 million people are currently on ART worldwide. Effective antiretroviral treatment for HIV infection alters the natural history of infection, allowing for essentially normal life expectancy for those who can use and adhere to therapy in both developed and developing countries. Current global HIV treatment guidelines recommend starting ART as soon as possible in individuals with HIV infection. Antiretroviral treatment not only benefits people with HIV infection but also reduces the risk of sexual transmission to others by more than 90% (Phanuphak and Gulick 2020). Treatment in cases of a middle ear infection usually includes a broad spectrum of antibiotics, whereas exploration of the mastoid may be required in cases that are unresponsive to conservative treatment (Iacovou et al. 2012).

Conclusion

Ontological manifestations are signs and symptoms that occur in patients related to the ear and do not require an audiologist examination to identify them. There is evidence that 30-50% of adults with HIV/AIDS have hearing loss, with this rate being higher in pediatric patients with HIV. It is often accompanied by symptoms such as earache, otorrhea, dizziness, and hearing loss. The current standard of care is to treat people with HIV infection with antiretroviral therapy (ART) as soon as possible, both to improve their own health and to reduce the risk of transmitting HIV to others. 23 million people are currently living on ART worldwide.

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