



New Perspectives on HIV And AIDS

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Abstract

Access to updated information about one of the viruses (human immunodeficiency virus) that causes the greatest deterioration in the health and quality of life of the population and that also triggers an incurable disease (acquired immunodeficiency syndrome), is literally of vital importance to be better informed in a timely manner. It is common knowledge that this health problem still prevails in the world. For this reason, this article presents bibliographies that will provide the reader with new global perspectives whose main objective is to address various specific contexts and in a current panorama regarding HIV/AIDS.

Keywords: HIV/AIDS; New Perspectives; Stigma; Health; Quality of Life

Introduction

This review article offers an updated and global perspective of HIV/AIDS from various specific topics and social problems. This international research aims to show a picture as accurate as possible of the various faces of AIDS and its evolution in the last 6 years. Beyond scientific advances, reflections from the principles of bioethics and the conquest of certain rights, this collaboration also makes us emphasize people with HIV/AIDS, providing them with recent information on new developments and advances that may be useful to them [1].

As part of the goals to eliminate AIDS by 2030, the Joint United Nations Program on HIV/AIDS (UNAIDS) and governments have made several commitments, such as dedicating a quarter of the total budget for HIV to prevention and ensuring that at least 30% of service delivery is provided by the community. They have also developed a strategic framework called "Fast Track to End AIDS". This approach proposes setting ambitious goals, significantly increasing current investment, and accelerating the delivery of high-impact services for the prevention and treatment of HIV infection. At the 2016 World Health Assembly, the Member States of the World Health Organization (WHO) approved the Global Health Sector Strategy against HIV, 2016-2021, which defines how the health sector will contribute to the achievement of these goals by 2030 [2].

Likewise, UNAIDS launched a new project in 2022 entitled : «Global AIDS Strategy 2021-2026»: Ending inequalities, ending AIDS, encourages adopting a critical view of inequalities and prioritizing the best identification and action tests that allow closing

the gaps that are an obstacle on the way to ending AIDS. Data collected through 2022 will be used to describe progress towards the new 2026 targets and to hold countries and global partners to account on desired improvements [3].

On December 1, the date of World AIDS Day 2022, the World Health Organization (WHO) called on leaders and citizens around the world to courageously recognize and combat the inequalities that impede progress towards ending AIDS by 2030. HIV remains a major public health problem affecting millions of people around the world. Of the 38 million people with HIV, 5.9 millions who know they are carriers do not receive treatment. Another 4 million people with HIV have not yet been diagnosed. While 76% of adults overall were receiving antiretroviral treatment that allowed them to lead normal and healthy lives, only 52% (global average) of children with HIV had access to such treatment in 2021 [4].

Materials and Methods

A descriptive, non-experimental review investigation was carried out that provides the reader with an update with information on useful concepts about this constantly and persistently evolving global public health problem such as HIV/AIDS. Databases such as : Ibero-American Bioethics Magazine, Multidisciplinary AIDS Journal, science domains, Pubmed, Google Scholar, Scielo, UNAIDS, WHO, International Labor Organization were accessed, placing in the search the descriptors: HIV, UNAIDS, HIV/AIDS today, sensitivity and specificity of HIV tests. Obtaining a total of 28 documents made up of 11 scientific articles, websites of international organizations and the American Society for Microbiology, of which 21 were selected for this research, published between 2017 and 2023. As selection criteria, sources of relevant, truthful and accurate in-

formation were collected; Considering research not older than 6 years from its publication, updated and with special emphasis on the subject. Finally, those bibliographic reviews that were carried out before 2017 were not considered, nor were the publications whose database was of unknown origin, which did not allow free access and also those that could not be referenced for their corresponding bibliographic citation.

Results and Discussion

News in HIV detection tests

The use of diagnostic laboratory tests is essential for the detection of HIV infection, since no clinical manifestation is specific enough; beyond what was mentioned at the beginning of this topic, these tests do not allow us to determine if the individual is in the AIDS stage, as if that were not enough, there is the limitation that, by being standardized *in vitro* (experimentation outside a living organism), results can be obtained that do not adhere to the serological reality of the patient [5].

Between December 2017 and February 2018, a total of 400 participants were enrolled in a study to assess the diagnostic accuracy of the oral fluid-based HIVST kit (OraQuick) at 15 public health centers in Addis Ababa, Ethiopia. The finding of this study demonstrates a high sensitivity and specificity of the OraQuick HIV-1/2 antibody test based on oral fluids [6].

As mentioned above, the high sensitivity and specificity of OraQuick HIVST in this study setting was consistent with findings from other studies reported in sub-Saharan Africa and in different parts of the world. For example, the study conducted in Zambia using the OraQuick kit showed a sensitivity of 98.7% (95% CI, 97.5–99.4) and a specificity of 99.8% (95% CI, 99.6–99.9). A simi-

lar study conducted in Singapore reported a sensitivity of 97.4% (95% CI: 95.1-99.7) and specificity of 99.9% (95% CI: 99.6-100). Therefore, the findings of this study confirm and further extend the excellent diagnostic performance of the OraQuick HIVST kit and is undoubtedly an innovation in HIV diagnosis [6].

In other information, the OraQuick home HIV test was approved by the FDA (OraSure Technologies, Bethlehem, PA) as a second generation assay, primarily detecting IgG antibodies. Some HIVSTs are third-generation tests that detect both IgG and IgM antibodies, potentially allowing for a shorter window period [7].

On the other hand, another study was carried out in 2019 in the Democratic Republic of the Congo that consists of a comparison based on the field evaluation of HIV self-tests in capillary blood (extracted from the capillaries of the finger) and oral fluids. A total of 528 participants were included in this survey. The successful performance rate of HIV self tests was high, with the capillary blood test (99.6%) and oral fluid test (99.4%) yielding an absolute difference of 0.2% (95% CI -1.8 to 1.1; P = 0.568). In addition to an oral test to detect the HIV virus that has a high sensitivity of 99.4%, a detection test is added to our research that is not venous extraction (like most of the tests we already know), but capillary that even has a higher sensitivity that consists of 99.6% and is better accepted by patients as it is not as invasive as venipuncture [8].

Another option when it comes to HIV screening, the HIV self-test (HIVST) provides an at-home option to overcome the barriers patients face with testing in healthcare settings. HIVST has gradually increased in popularity in an age where social media and technology-based solutions are preferred. The potential public health impact of HIVST is not yet fully understood on a large scale, but it is something that can still be further developed and exploited [9].

Test	Use	Sensibility	Especificity	Technical characteristic
Rapid Ac Test	screening	high Close to 100%	98-99%	Sensitivity comparable to ELISAs Even lower specificity than ELISAs Detects only antibodies
Rapid Ag/Ac test	screening	high Close to 100%	98-99%	Sensitivity comparable to ELISAs Even lower specificity than ELISAs Detects antigens/antibodies
Elisa third generation	screening	high Close to 100%	99,5%	Its reactivity only means a presumptive diagnosis of HIV infection. Detects only antibodies
Elisa fourth generation	screening	high Close to 100%	99,5%	Its reactivity only means a presumptive diagnosis of HIV infection. - Detects antigens/antibodies It has a shorter window period than third-generation ELISAs.
indirect immunofluorescence	Confirmation	98-99%	99,9%	Sensitivity and specificity comparable to that of the Western Blot Cheaper and easier to run
Western Blot	Confirmación	98-99%	99,9%	It is basically used in indeterminate cases of the IFI Their positivity criteria are not unified

Chart 1: Comparison of sensitivity, sensitivity and use of diagnostic tests for human immunodeficiency virus infection. illustration [10].

Treatments

There is currently no cure for HIV/AIDS. Once an individual contracts the infection, the body cannot get rid of it. However, there are many medicines that can control HIV and prevent complications [11].

One study described the microbiological profile of the subgingival biofilm of HIV-infected patients receiving highly active antiretroviral therapy (HAART). The study comprised 32 HIV seropositive patients with periodontal disease (PD) who were under HAART treatment for more than 6 months. Laura A., *et al.* conclude that the patients living with HIV/AIDS under HAART studied here had a low prevalence of clinical signs of periodontal disease. However, the significant detection of *P. gingivalis*, *T. denticola* and *T. forsythia* were the most prevalent periodontopathic species. Due to the above, we can consider this treatment as effective and, in addition, it helps us to detect some pathogenic microorganisms [12].

Vaccines have been touted as another potential HIV/AIDS treatment hope, however: "The disappointment with the vaccine trial outcome further underscores the importance of expanding the use of available HIV treatment and prevention innovations, such as oral PrEP, long-acting injectables and the vaginal ring," said Winnie Byanyima, Executive Director of UNAIDS. He also noted that the search for a vaccine must continue, adding that it is important to remember that, despite this setback, the AIDS epidemic can still be ended by 2030 [13].

Moreover, they are developing new HIV drugs that could change ART and prophylaxis in the future, particularly injectable formulations and short courses for opportunistic infections, such as cryptococcal meningitis [14].

Progress against the stigmatization of workers with HIV

In 2021, the International Labor Conference adopted a Resolution on Inequalities and the World of Work, indicating that discrimination, including its multiple and intersecting systemic forms, remains a persistent and pervasive dimension and root cause of inequality. The publication is based on an online discussion and a Global Dialogue on Social Protection for People Living with HIV. The dialogue brought together participants from 52 countries to share strategies and good practices and allowed multiple stakeholders to engage in a constructive dialogue on how social protection programs can be made more inclusive. The publication was launched at a conference prior to the 24th International AIDS Conference 2022 [15].

In a relatively short period of time, the HIV/AIDS pandemic has become one of the most pressing labor issues of our time. The world of work has been affected by discrimination against people with HIV/AIDS, which violates fundamental labor rights and affects the chances of obtaining decent work. HIV and AIDS Recommendation, 2010 ; It is an instrument relevant to the International Labor Or-

ganization whose function is to contribute to the world of work to universal access to HIV prevention, treatment, cure and support. Contains provisions on prevention programs that could save people's lives and on anti-discrimination measures at the national and workplace levels [16].

The rights of people with HIV/AIDS and non-discrimination

Throughout history, few infectious diseases have caused a certain stigma and at the same time discrimination in people who suffer from it, that is the case of the acquired immunodeficiency syndrome caused by the human immunodeficiency virus. It is essential to defend and encourage human rights, promote improvements and changes in laws through global strategies to reduce this health and social problem in the HIV-positive population [17].

In the year 2021 UNAIDS created the draft global strategy against AIDS 2021-2026, emphasizing firstly social inequalities to end the disparities that do not allow progress to end HIV/AIDS. The main objective is to bring together countries, communities and partners regardless of the responses against HIV to implement measures with special focus on the future development of zero new HIV infections, zero discrimination and a 0% mortality rate from AIDS. With these programs and resources people will be able to benefit by exercising their rights, protect themselves and prosper against HIV [18].

Conclusion

The implementation of strategies to put an end to HIV/AIDS promote the creation of a propitious scenario so that responses to this problem can be successful [19].

New perspectives on HIV/AIDS provides a global overview of HIV in the last 6 years and this article delves into topics such as novelties in detection tests, another with a focus on treatment and finally the advances that have been found against stigmatization and discrimination towards people with HIV. These perspectives are essential to act on effective and timely detection, the advances that have been made and the choice in terms of treatment and finally act on inequalities in relation to HIV in the social and work environment [20].

Finally, in the present research work, new current recommendations headed by the world health organization (who) in response to combat HIV infection are reflected and analyzed. This is in favor of key population groups (seropositive patients), social factors and other contextual factors that increase the spread of this virus and in turn limit accessibility to health services and other basic services [21].

Conflicts of Interest

The author has not conflict of interest to declare.

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