

ORAL MANIFESTATIONS OF HIV INFECTION/AIDS

VASILE NICOLAE¹

¹“Lucian Blaga” University of Sibiu

Keywords: HIV infection, AIDS, oral manifestations

Abstract: The knowledge of essential information on etiopathogenesis, clinical manifestations, diagnosis and treatment of HIV / AIDS is useful because it is a topical issue in the medical world by increasing global incidence, due to its relatively rapid spread, but also by being associated with a high period of infectivity, without the presence of signs or symptoms, and leads to exitus in the absence of etiologic treatment. HIV infection and AIDS are major causes of morbidity and mortality globally. Materials and methods: HIV-infected patients are susceptible to infections with micro-organisms that do not normally cause disease in immunocompetent patients. This article seeks to analyze oral manifestations that occur in HIV-infected patients. A retrospective analytical study was performed on a group of 50 patients. The cases were recorded at our Implantology Clinic from the Military Hospital during 01.06 2015-01. 06 2016. Patients were divided into comparative batches according to clinical-evolutionary status, age group, sex, associated conditions, and the treatment regimen that was used. Results and discussions: Concerning sex and age distribution, oral manifestations occur more frequently in females, and in patients over 18 years old. Also, in this age group, the largest variety of oral manifestations can be seen. It seems that the most common oral manifestation in HIV / AIDS patients is oral candidiasis, both in men and women, in all age groups. Other oral manifestations encountered were: dental stomatitis, dental caries and dystrophies, herpetic infections and necrotizing ulcerative gingivostomatitis. Conclusions: All of these results support the importance of routine oral examinations in patients at risk for HIV and those who already have the infection. To sum up, it should be a warning signal for dentists to pursue a quick and accurate diagnosis of this condition.

INTRODUCTION

Even though epidemiology and transmission modalities have been established, there still remain questions about the prevalence and incidence of HIV infection, its transmission efficiency and the role of cofactors in easing the transmission, as well as the effectiveness of some prevention strategies. The psycho-social and economic impact of HIV infection must not be neglected. Prevention is therefore important through the education of the population regarding the transmission methods, as well as the early establishment of diagnosis in order to initiate specific treatment and prevent complications.(1)

The human immunodeficiency virus was clinically described in 1981, and identified in 1983 at the Pasteur Institute from Paris by a group of researchers coordinated by Prof. Luc Montagnier, who called it lymphadenopathy Associated Virus (LAV). Robert Gallo called it lymphotropic human T-cell type III virus, and determined that he was causing acquired immune deficiency syndrome (AIDS). In 1985, an International Nomenclature Committee adopted the name Human Immunodeficiency Virus (HIV).(2)

The origin of HIV is a controversial topic. Even though AIDS was firstly recognized in the United States, there is evidence that HIV-1 transmigration in Central Africa preceded other transmissions.

Human immunodeficiency viruses belong to the Retrovirus group, Lentivirus subgroup. Viruses belonging to this genome can infect both humans and mammals. Their

characteristic is slow clinical evolution, but they exhibit strong viral replication with central nervous system damage.

Retroviruses are RNA viruses that present an enzyme called reverse-transcriptase, which determines a “paradoxal” genetic information flow through double-stranded DNA synthesis complementary to viral RNA. The replication results in an intermediate DNA, called provirus, which integrates into the host’s genome.(3)

HIV infection is pandemic, with HIV cases in all countries of the world. The HIV’s transmission mode HIV is similar to that of hepatitis B and is achieved by: sexual contact, blood and derivatives, contaminated needles, during pregnancy, breast milk and perinatal mother-to-child contact. The minimal infective dose of HIV is 30 times higher than for hepatitis B virus.

Practically, HIV has been isolated in infected individuals from: lymph nodes, bone marrow, tissues, blood, sperm, urine, cerebrospinal fluid, tears, etc.

Receptivity is general. Rare cases of resistance to HIV infection through natural immunity have been reported.

The infection source an HIV infected individual, with or without clinical manifestations. The infection lasts persists all life, forming a reservoir of HIV.

The most common transmission way, especially in developing countries, is through heterosexual contact with an infected person.(4)

Following the analysis of the reported cases, certain risk groups were identified:

¹Corresponding author: Vasile Nicolae, Str. Lucian Blaga, Nr. 2A, Sibiu, România, E-mail: dento.medica@yahoo.com, Tel: +40269 212320
Article received on 30.04.2017 and accepted for publication on 29.05.2017
ACTA MEDICA TRANSILVANICA June 2017;22(2):84-86

CLINICAL ASPECTS

A. For adults:

1. Heterosexual women and men (58%);
2. Drug users (21.76 %);
3. Homosexuals;
4. Patients undergoing transfusions;

B. For children

1. Children with multiple hospitalizations and intravenous treatments;
2. Children with coagulation pathology who received transfusions;
3. Children of mothers infected by sexual intercourse.(5)

In Romania, during 1987-1990, an HIV epidemic related to *hospital-acquired infections* was recorded in infants born during that period and in a lower proportion in transfused persons by sharing the needles and in the absence of an appropriate sterilization of the instruments.(5)

Treatment of the HIV infection is about stopping the disease's progression as well as increasing life expectancy. We try to maintain the immune system in the best possible condition and stop viral replication. The objective of the treatment is to remove the virus, but this has not been done so far. The therapeutic goal comprises the antiviral treatment and the treatment of complications.(6,7)

Patients undergoing the treatment are monitored through laboratory tests to assess the efficacy of the treatment plan. The most accurate test is viral load checking through PCR method.(6)

The dentist may be the first medical practitioner to diagnose HIV infection.

PURPOSE

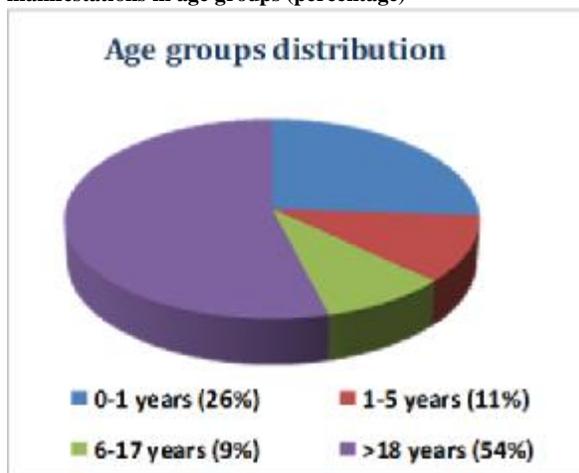
This article aims to study the oral manifestations that occur in HIV-infected patients.

MATERIALS AND METHODS

We performed a retrospective study on a group of 50 patients. The cases were recorded at our Implantology Clinic from Military Hospital during 01.06 2015-01. 06 2016. Patients were divided into comparative groups according to the clinical and progressive status and age group, gender, associated conditions, complications and the used treatment plan.

RESULTS AND DISCUSSIONS

Figure no. 1. Distribution of HIV / AIDS cases with oral manifestations in age groups (percentage)



Therefore, it is noticed that oral manifestations occur most frequent in patients over the age of 18 years (54% cases), followed by age group 0-1 years (26% cases).

It was found that oral manifestations occurred significantly more frequently in females, 78.9% cases.

Figure no. 2. Gender distribution of cases with oral manifestations in HIV / AIDS infection

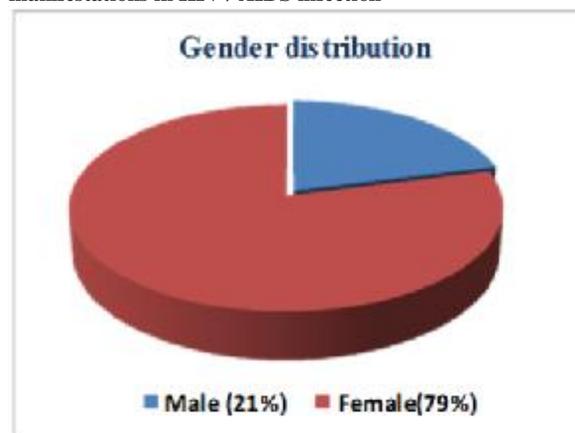
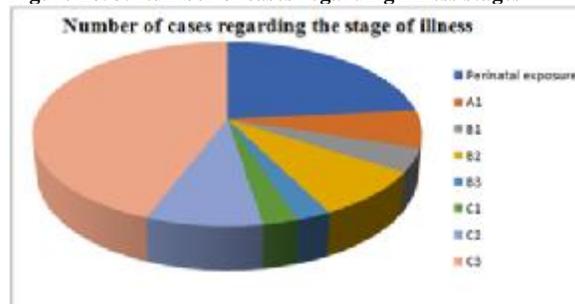


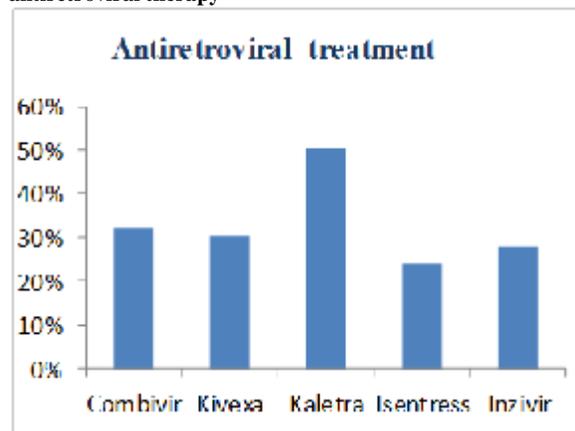
Figure no. 3. Number of cases regarding illness stages



During 2014-2015, most HIV infection / AIDS cases associated with oral manifestations are in stage C3.

Some of the registered patients were undergoing treatment. The most commonly used drugs in HIV / AIDS therapy were: Combivir, Kivexa, Kaletra, Isentress, Trizivir, but other antiretroviral drugs were also used.

Figure no. 4. The most commonly used drugs in antiretroviral therapy



CLINICAL ASPECTS

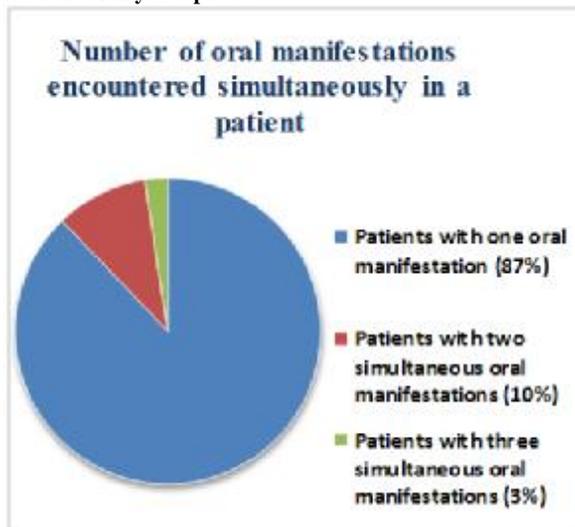
The most commonly used drug was Kaletra (in 50% of the patients), followed by Combivir (32% of the patients), Kivexa (30% of the patients), Inzivir (28% of the patients), and Isentress (24% of the patients).

Most patients have only one oral condition; however, a small number of patients have two or even three oral conditions simultaneously.

www.cnlas.ro/images/doc/31122014_rom.pdf. Accessed at 12.04.2017.

6. Drăgan M. Boli infecțioase, Editura Didactică și Pedagogică, R.A, București; 1998. p. 495-539.
7. Țovaru P. Patologie orală, Volumul II, Editura Quintessence; 2015. p. 113-131.

Figure no. 5. Number of oral manifestations encountered simultaneously in a patient



CONCLUSIONS

Oral lesions indicate not only the infection with the human immunodeficiency virus, but are among the earliest clinical manifestations that may indicate HIV progression to AIDS; thus, early detection of oral conditions can help to early diagnose of HIV.

The number of HIV infection cases associated with oral manifestations is increasing. The most common oral manifestation observed at HIV / AIDS patients is oral candidiasis, in both men and women in all age groups; other encountered oral manifestations were: aphthous stomatitis, dental caries and dental dystrophies, herpes infections and ulcero-necrotic gingivo-stomatitis.

Antiretroviral therapy does not increase the incidence of carious affections.

All these conclusions support the importance of routine oral examinations in patients which are at risk for HIV and in those who already have the infection.

REFERENCES

1. Douglas PH, Pinsky L - The essential AIDS factbook. Pocket books; 1992. p. 8-30.
2. Mandell G, Gordon D, Bennett J. Principles and practice of infectious diseases, 3rd edition, Ed. Churchill Livingstone; 1990. p. 1029-1112.
3. Tilișcan C. Elemente de patogeneză a sindromului metabolic asociat tratamentului antiretroviral la pacienții cu infecție HIV, București; 2013. p. 8-13.
4. Fauci AS, Braunwald E, Isselbacher KJ. Harrison's Principles of internal medicine, 14th edition, McGraw-Hill, New York; 1998. p. 1220-1250.
5. Institutul de Boli Infecțioase Prof. Dr. Matei Balș, Compartimentul pentru evaluarea și monitorizarea infecției HIV în România,