EPIDEMIOLOGICAL PROFILE OF SEROPOSITIVE INDIVIDUALS FOR HIV/AIDS

PERFIL EPIDEMIOLÓGICO DAS PESSOAS SOROPOSITIVAS PARA HIV/AIDS

PERFIL EPIDEMIOLÓGICO DE INDIVIDUOS SOROPOSITIVOS PARA EL VIH/SIDA

Ana Maria Fernandes Menezes¹, Kaic Trindade Almeida², Ana Karla Araújo Nascimento³, Gislaine Chaves Machado Dias⁴, Juliana Cunha Nascimento⁵

ABSTRACT

Objective: to analyze the epidemiological profile of seropositive for HIV/AIDS. **Method:** it was a quantitative, epidemiological, and descriptive of retrospective analysis study carried out in the center of Recovery and Sexual Education (CRESS) with individuals who had a diagnosis of HIV/AIDS. The database was organized on the Bioestat 5.0. and presented in figures and tables. **Results:** there were analyzed 87 medical records of patients with confirmed diagnosis of HIV/AIDS infection recorded in CRESS, where there was a predominance in infected males with 46.0% of the cases (p 0.412), with the CID B24 in persons with an average age of 30 to 39 years old. **Conclusion:** from this study it is concluded that the municipality of Bom Jesus da Lapa junctures with high rates of HIV infections. **Descriptors:** HIV Infections; HIV Seroprevalence; Epidemiology; Acquired Immunodeficiency Syndrome; Immunity; Prevention & Control.

RESUMO

Objetivo: analisar o perfil epidemiológico das pessoas soropositivas para HIV/AIDS. **Método:** estudo quantitativo, epidemiológico, descritivo de análise retrospectiva, realizado no Centro de Recuperação e Educação Sexual (CRESS) em indivíduos que tiveram diagnóstico de HIV/AIDS. O banco de dados foi organizado no software Bioestat 5.0. e apresentados em figura e tabelas. **Resultados:** foram analisados 87 prontuários de pacientes com diagnóstico confirmado de infecção pelo HIV/AIDS registrados no CRESS, onde houve uma predominância em infectados do sexo masculino com 46,0% dos casos (p 0,412), com o CID B24 em indivíduos com idade média de 30 a 39 anos. **Conclusão:** a partir desse estudo desenvolvido, conclui-se que o município de Bom Jesus da Lapa se conjuntura com grandes índices de infecções de HIV. **Descritores:** Infecções por HIV; Soroprevalência de HIV; Epidemiologia; Síndrome de Imunodeficiência Adquirida; Imunidade; Prevenção & Controle.

RESUMEN

Objetivo: analizar el perfil epidemiológico de las personas seropositivas para el VIH/SIDA. **Método:** se trata de un estudio cuantitativo, epidemiológico, descriptivo de análisis retrospectivo, realizado en el Centro de Recuperación y Educación Sexual (CRESS) en personas que tenían un diagnóstico de VIH/SIDA. La base de datos se organizó en Bioestat 5.0. y presentados en tablas y figuras. **Resultados:** se analizaron 87 historias clínicas de pacientes con diagnóstico confirmado de infección de VIH/SIDA registrados en CRESS, donde hubo un predominio en varones infectados con el 46,0% de los casos (p 0.412), con el CID B24 en individuos con una edad media de 30 a 39 años. **Conclusión:** en este estudio, se concluye que el municipio de Bom Jesus da Lapa si coyuntura con altas tasas de infecciones por VIH. **Descriptores:** Infecciones por VIH; Seroprevalencia de VIH; Epidemiología; Síndrome de Inmunodeficiencia Adquirida; Inmunidad; Prevención & Control.

¹Undergraduates, Faculty of Biomedicine, Guanambi FG/CESG. Guanambi, Bahia, Brazil. Email: anamaria_amfm@hotmail.com; ORCID iD: <http://orcid.org/0000-0002-6443-0080>; Email: kaic_lr@hotmail.com; <http://orcid.org/0000-0001-8084-7997>; ² Guanambi School Master. Guanambi, Bahia, Brazil. Email: karlaaraujobio@gmail.com ORCID iD: <http://orcid.org/0000-0002-5066-5276>; ³Expert in Teaching in Higher Education. Guanambi, Bahia, Brazil. Email: gibiomedica@icloud.com ORCID iD: <http://orcid.org/0000-0001-9261-551X>; ⁴(Graduate) School Biomedical Guanambi. Guanambi, Bahia, Brazil. Email: july.ibc@hotmail.com ORCID iD: <http://orcid.org/0000-0002-1456-3299>

INTRODUCTION

The human immunodeficiency virus (HIV) is a retrovirus that infects T CD4⁺ lymphocytes through their interaction with the glycoproteins present in the membrane. This virus is part of the Family Lentiviridae, coming from sub-Saharan region of Africa, and has its transmission primarily through sexual way (responsible for around 75% of infections), and to a lesser vertical and parenteral proportion. When this virus enters the body, triggers a dysfunction of the immune system, causing a decrease of T lymphocytes, leaving the carrier liable to the various opportunistic infections of microorganisms, thus causing the Acquired Immunodeficiency Syndrome (AIDS).¹

At first, the HIV was described by being only in groups that have behavior that leave them more susceptible to infection, as in drug users, homosexuals, and sex workers. However, such a scenario described has been changed along the years, presenting constant increases in the rates of contamination in heterosexuals, associated with a large participation of women.²⁻³

In the perspective of HIV infection in the world, Africa is established with emphasis on indices, with approximately 60% of all cases. The Caribbean, Central Asia, and Eastern Europe are also areas strongly affected by the epidemic, with approximately 1% of its population in general. Moreover, in Brazil, today, it is estimated that there are over 718 thousand individuals infected, but only 80% knows their diagnosis.²⁻³

In 2014, the Ministry of Health registered in the country 26,277 new cases of HIV. However, these figures were showing a constant and high growth over the course of the subsequent years, showing from 2015 until the first half of 2016 45,003 new cases of infection. It is emphasized that the prevalence during this time interval occurred in male individuals with 70.7% of the cases and only 29.3% in the female sex.⁴

The average age that presented the greatest prominence due to the number of infections in the year 2005 was 35 to 44 years old. However, there has been a change in the epidemiological profile of this infection, characterizing it from the year 2010 until the present moment, with prevalence in the age of 25 to 39 years old (BRAZIL, 2015). For these and other reasons, it is noteworthy that the epidemiological change, besides being global is dynamic and unstable, whose occurrence differs in regions of the world, and depends, among other factors, on the individual and collective human behavior in society.⁵

OBJECTIVE

- To analyze the epidemiological profile of individuals seropositive for HIV/AIDS.

METHOD

It is a quantitative study, epidemiological, descriptive of retrospective analysis, being carried out in the center of Recovery and Sexual Education (CRESS) of Bom Jesus da Lapa of individuals who had a diagnosis of HIV/AIDS.

The municipality cited is situated in the center-west region of the state of the Middle São Francisco, which has an estimated population of 70,090 inhabitants in the year 2016. Its climate is usually hot and dry with typical vegetation of the stunted vegetation region and has the agriculture, fisheries, trade and cattle as the main economic activity of the municipality.⁶

The data collection was carried out in collaboration with the Secretary of Health of the municipality and the coordination CRESS, having as a source of data records in the charts of individuals who had a diagnosis of HIV/AIDS, with temporal clipping from January 2005 to September 2015. The information about the resident population in the period were used for the construction of indicators obtained by means of population estimates from the Brazilian Institute of Geography and Statistics.⁶

There were included in this study, all individuals who had a diagnosis of HIV/AIDS in the period from 2005 to September 2015, registered in the CRESS of Bom Jesus da Lapa, and excluded four cases of individuals who had insufficient records in the charts for the ratings as desired. The variables of interest included in the analysis were gender, age, CID, ART, area of residence, neighborhood, and year of diagnosis.

The database was organized on the Bioestat 5.0, where it began the graphs and tables and held up the descriptive analysis. The statistical analysis was performed using the Pearson Chi-Square test, with a significance level of 5% ($p < 0.05$).

The present study had approbation by the Research Ethics Committee of the Independent Faculty of Northeast - FAINOR, under N CAAE 50153115400005578 registration, obtaining remission of the Free and Informed Consent Term. The research was conducted according to the resolution 510/2016 of the National Health Council (NHC), which regulates the standards of applied in research with human beings.

RESULTS

There were analyzed 87 medical records of patients with confirmed diagnosis of HIV/AIDS infection, recorded in CRESS, in the

municipality of Bom Jesus da Lapa - BA, in the period from January 2005 to September 2015. Of these, we observed predominance in infected males with 46.0% of the cases (Figure 1).

Figure 1. Distribution of cases of HIV/AIDS according to gender and year of diagnosis, between the years of 2005 and September 2015. BOM Jesus da Lapa, Bahia, Brazil, 2015.

Source: Sex Education and Recovery Center (CRESS)

*2015: until September.

With respect to age, infections predominated among individuals aged 30 to 39 years old, being expressed in 26.4% of cases (p 0.0005). Already in that concerns the International Classification of Diseases (ICD), we observed a predominance of Category B24

(71.3%) (p<0.001), having the largest proportion of individuals residing in urban areas (73.6%) (p 0.0001), with everyone doing the antiretroviral treatment (ART) (p <0.001) (Table 1).

Table 1. Sociodemographic characteristics of individuals with HIV/AIDS, in the period from 2005 to 2015. Bom Jesus da Lapa, Bahia, Brazil, 2015.

Demographic characteristics	N	%	χ ²	P*
Age				
0 - 19	15	17.2	21.89	0.0005
20 - 29	10	11.5		
30 - 39	23	26.4		
40 - 49	20	23.0		
50 - 59	14	16.1		
> 60	01	1.2		
Ignored**	04	4.6		
CID				
B 20	05	5.7	48.49	<0.0001
B 24	62	71.3		
Ignored**	20	23.0		
Use of ART				
Yes	87	100	87.00	<0.0001
No	0	0		
Residence				
Rural	15	17.2	30.39	<0.0001
Urban	64	73.6		
Ignored**	8	9.2		

* Chi-square test; ** Did not compose statistical analysis.
Source: Sex Education and Recovery Center (CRESS)

Analyzing the incidence coefficient along the historical series, there is a fluctuation in the number of individuals with HIV/AIDS, and a progression from the year 2012, with maximum incidence in the year of 2014

(2.18/10,000 inhabit.). However stands a regression in the year 2015, which can be justified due to the analysis of medical records have been conducted only until the month of September (Figure 2).

*2015: until September.

Figure 2. Coefficient of incidence of cases with HIV/AIDS, in the period from 2005 to 2015. Bom Jesus da Lapa, Bahia, Brazil, 2015.

Source: Sex Education and Recovery Center (CRESS)

Now when we analyze the infections with HIV in different areas of Bom Jesus da Lapa stands the neighborhoods Nova Brasília and João Paulo II, who possessed the highest indices of records of contamination with the

virus (Table 2). Denotes that such locations are found in the urban context, and together they are responsible for 32.2% of the total of infections by viruses in every municipality in the period in question.

Table 2. Distribution of individuals with HIV/AIDS according to areas in the municipality of Bom Jesus da Lapa - BA, in the period from 2005 to 2015.

Area	N	%
Água Quente	01	1.2
Agrovila	01	1.2
Algodeira	01	1.2
Amaralina	01	1.2
Bandeira	01	1.2
Beira Rio	04	4.6
Cavalcada	02	2.3
Guarani	01	1.2
Guanabara	01	1.2
Iraque	01	1.2
João Paulo II	12	13.8
Jurema	03	3.4
Ilha Cana Brava	02	2.3
Lagoa grande	07	8.0
Maravilha II	02	2.3
Magalhães Neto	01	1.2
Nova Brasília	16	18.4
Parque Verde	03	3.4
Projeto Formoso	02	2.3
Retiro Boa Vista	01	1.2
Rio das Rãs	02	2.3
São Gotardo	03	3.4
São João	01	1.2
Quadra L	05	5.7
Vila Maria	01	1.2
Vila Nova	03	3.4

Ignored: 9(10 %)

Source: Sex Education and Recovery Center (CRESS)

DISCUSSION

When analyzing the prevalence observed in the male sex (Figure 1), it denotes that such data are in accordance with studies performed in other States located at the two extremes of the Country as in Belém-PA and Tubarão-SC, being demonstrated a prevalence of 91% and 58.8% of the cases in men, respectively.⁷⁻⁸

Studies suggest that the higher prevalence of infected by HIV/AIDS in males occurs due to sexual preference of many men by partners of

the same gender. On the other hand, even practice by bisexual, basing the contagion by the possibility of transmission through semen or by microtraumas in the rectum, or on the penis during the practice of anal sex common in homo and bisexual. Furthermore, it is also not using condoms during sexual relations reported by male individuals. Another important factor that justifies the higher incidence of infection in this age group is to practice sex with multiple partners as well as the early initiation of sexual life.^{7,9}

The increase in the prevalence correlated with sexual preference, listed above, corroborates with the recorded data on HIV/AIDS. Epidemiological bulletin released by the Ministry of Health, which are pointed out records of men who had serum positivity for the virus in the year of 2015; being that 50.4% reported homosexual exposure, 36.8% heterosexual and 9.0% bisexual. Already in women seropositive for HIV/AIDS, the heterosexual exposure presented predominance with a percentage of 96.4%.⁴

Whereas an investigation of the history of the epidemiology of the virus throughout the country, it is observed that, the ratio between the genders regarding contamination rates of HIV always strongly prevailed in the male sex. However, in recent years these proportions are suffering constant mitigations, triggered mainly by an effect called feminization.¹⁰

This process is a reflection of various social and psychological factors that are inherent to women. Among these, we highlight the difficulty of persuading the sexual partner to adhere to the use of condoms and sexual violence. It is emphasized that a possible grievance pertinent to this amendment of the epidemiological panorama is contamination of women in reproductive age, which can lead directly to an increase of cases of infection by vertical transmission.^{2,11}

Now to observe the numbers related to the age group that has been most affected by HIV infection (Table 1), stands that fall in line with the results found in the municipality of Rio das Ostras - RJ).¹²

In a study conducted in the city of Parnaíba-PI; it was identified that the cases of HIV infection in adults are mainly related to the early onset of sexual practices and consequently the disuse of condoms in relationships. Many do not have necessary knowledge about transmission and prevention of disease, unexpressed by many, the use of the contraceptive pill as the best way of preventing pregnancy, not linking is, as a preventive method of STIS.¹³

The disuse of condoms is observed in other studies present in the literature, such as in a conducted in João Pessoa in Paraíba, where 27% of the population studied said to make use of the contraceptive pill. This present greater "convenience", and 10% declared not to use a condom due to the decrease of pleasure inherent to its use, and in some cases, do not assume the need of the use of the same^{13,14}. In addition, the index by age range differs also between social aspects related to race, exposure and education.^{12,15}

The study also shows that 17.3% of the cases of HIV/AIDS presented in infected with age greater than or equal to 50 years old. Although it is a lower prevalence, it is extremely important to emphasize that the cases of infection by the virus in people over 50 years old may be related to decreased mortality of infected due to the effectiveness of antiretroviral therapy, therefore, these individuals live longer. It is also constant the vulnerability of elderly people facing risk situations, being the disuse of preventive methods the main cause of infection in this age group, since with increasing age may also be observed a decrease in the use of condoms, because they fail to treat sex as something common in everyday life. In addition to presenting difficulties in handling the condom and associate its use with low sexual performance. Another aspect is the use of medicinal products intended to reverse the physiological erectile dysfunction of the third age also contributes due to the increase in sexual practice in the elderly.¹⁶⁻⁷

Also stands out as a justification of the infection in the elderly, impoverishment, where it is demonstrated that individuals with less time to study tend to have less information and thus understand less about the virus and disease.¹⁸

Thus emerges an important risk group, because in addition to the factors described above, it is also concerned the fact that information on the disease are aimed primarily at young people or working in the area of health, becoming very needy the dissemination of information about HIV/AIDS for the elderly.¹⁹⁻²⁰

It is important to highlight that, in Brazil, there was a significant increase in the number of infected older than 50, between 2007 to 2015, expressing the value of 557 and 3,561 cases respectively.⁴

In the perspective that regards the prevalence of category B24 in the International Classification of Diseases (ICD) (Table 1), it is noteworthy that observed similar results in a study in Teresopolis-RJ and in a general hospital in the south of the Country.²¹⁻²

For the clinical classification of AIDS, it is necessary to the use of the ICD, the objective of which is to codify the pathologies favoring a universal language of diagnosis of the disease.²³

In 1986, with the drafting of the CID10, AIDS began to be described separately in five categories (B20-B24). In addition, subcategories attached to these, where the

category B20 is described as “HIV disease resulting in mycobacterial infections” and the B24 as “HIV disease as not specified”. However, even with the encoding in five categories and subcategories of the CID10 for AIDS, it is necessary to use dual code to better identify the manifestations of the disease.²³⁻⁴

In this perspective, denotes that the antiretroviral therapy (Table 1) significantly reduces the viral load, but does not interfere with the number of CD4 cells, however, if the therapy is followed correctly, it is expected that the CD4 are restored. The therapy aims to decrease morbidity and mortality of patients, ensuring a better quality of life of patients and also restores the immune system and inhibits viral replication, it is not possible to eradicate the virus from the body.^{8,25}

Another relevant factor is that the therapy with antiretroviral drugs, in addition to providing the benefits described above, also assists in the reduction of opportunistic infections, thus reducing the number of hospitalizations, and as a result, decreasing the AIDS deaths.²⁶

Since the prevalence of HIV infection in the urban area (Table 1), enter in agreement with studies carried out in the municipalities of Caxias-MA, Gurupi-TO and in the State of Pernambuco, where the numbers of cases among residents in the urban area is significantly larger than in the rural area, being 41.3%, 93%, and 93.35%, respectively.²⁷⁻⁹

The process of urbanization of the majority of the cases of HIV/AIDS is due to the high population concentration in large urban centers, where statistically favors directly to the high rates of infection. Furthermore, the advantages inherent in sexual practice is higher in the cities, such as promiscuous way to relate with multiple partners that provides a greater exposure, becoming the greater the possibility of infection. However, the ease of access to information about the disease that the inhabitants of the urban area have, favors the diagnosis and treatment of the disease.²⁸

In relation to the coefficient of incidence (Figure 2), it is noteworthy that this elevation presented in the rates of infections in recent years, is not restricted only to the municipality of Bom Jesus da Lapa. Data released by the Ministry of Health show the occurrence of a growth of HIV contamination in the national panorama when you examine the past 10 years. Such an event occurring is due by the beginning of a change in the epidemiological profile of the infection, marked by different processes such as the feminization, heterossexualization, interiorization and pauperization.^{4,9}

In continues to analyze, it is evident that the concentrations in certain urban areas (Table 2), may be commonly associated to low socioeconomic power present in the locality. Studies show that individuals who have a low income, little or no schooling and reside in urban centers, constitute themselves as a group with higher risk of acquiring the contamination with HIV, having on average a probability greater than 14% risk of infection when compared with the other groups.³⁰

Another aspect that underlies the high rates of contamination in these areas are the various behavioral ducts commonly adopted by individuals that inhabit urban locations, such as the non-use of condoms, early age of onset of sexual life and multiple sexual partners. This set of actions just leaving them more susceptible to acquire the infection by the HIV virus.³⁰

CONCLUSION

Thus, it concluded that there was predominance of contamination on the males, with the CID B24. What draws attention in this study is the process of feminization of HIV cases observed. Note explicitly the increase of cases of HIV in women, thereby prejudicing, and the wordy discourse on gender inequality inherent in the social, economic, and racial issues, which for the present it already makes a speech obsolete if compared to the insertion of women in society.

Thus, it is noticeable the lack of interest by public organs related to campaigns for the prevention of HIV/AIDS aimed at female audience. The vulnerability faced by women, since studies suggest as the reason for “feminization”, sexual violence and the difficulty of women to convince the partner regarding the use of condoms, as well as the limitation of women in access to health care due to their subordinate condition in current days.

In addition, it was also observed that there was a greater prevalence in individuals aged between 30 to 39 years old, which draws attention, given that, according to previous findings in literature, where these pointed infected were older, the early infection is becoming increasingly common, alerting them once more to the need for preventive campaigns more targeted and effective.

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Corresponding Address

Ana Maria Fernandes Menezes
Rua Rio Grande do Sul, 180
Bairro Brasília
CEP: 46430-000 – Guanambi (BA), Brazil