

Prevalence of hepatitis B in patients living with AIDS and associated factors

Prevalência de hepatite B em pacientes vivendo com HIV e AIDS e fatores associados

Prevalencia de hepatitis B en pacientes que viven con VIH y SIDA y factores asociados

Erildo Vicente Müller¹, Eduardo Berto Rech², Fernanda Pitome Weigert³, Luana Caroline Wilsek⁴

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REVISA

1. Universidade Estadual de Ponta Grossa (UEPG) Ponta Grossa, Paraná, Brasil.
<https://orcid.org/0009-0002-9421-9128>

2. Universidade Estadual de Ponta Grossa (UEPG) Ponta Grossa, Paraná, Brasil.
<https://orcid.org/0000-0003-4643-056X>

3. Universidade Estadual de Ponta Grossa (UEPG) Ponta Grossa, Paraná, Brasil.
<https://orcid.org/0009-0005-0922-3731>

4. Universidade Estadual de Ponta Grossa (UEPG) Ponta Grossa, Paraná, Brasil.
<https://orcid.org/0009-0009-0529-7732>

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RESUMO

Objetivo: A coocorrência de infecções em pessoas vivendo com HIV/AIDS, cria grandes desafios clínicos e de saúde pública, o que requer uma compreensão abrangente da situação local, caracterizando-se padrões de coinfeção e fatores de risco associados. O presente estudo possui o objetivo de verificar a prevalência de hepatite B (HBV), bem como as características epidemiológicas e clínicas em pessoas vivendo com HIV/AIDS (PVHIV) na região dos Campos Gerais. Os dados foram coletados por meio de prontuários físicos e eletrônicos disponíveis no Serviço de Assistência Especializada (SAE) de Ponta Grossa serão revisados para garantir a melhor descrição dos casos. Serão também coletados dados pelos sistemas eletrônicos Laudo e SICLOM. Espera-se a partir dos resultados descrever o perfil epidemiológico e clínico dos PVHIV para auxiliar o serviço no conhecimento das características dos PVHIV para melhor direcionamento das ações de saúde.

Palavras-chave: HIV, Hepatite B, coinfeção.

ABSTRACT

Objective: The co-occurrence of infections in people living with HIV/AIDS creates major clinical and public health challenges, which requires a comprehensive understanding of the local situation, characterizing coinfection patterns and associated risk factors. This study aims to verify the prevalence of hepatitis B (HBV), as well as the epidemiological and clinical characteristics in people living with HIV/AIDS (PLWHA) in the Campos Gerais region. Data were collected from physical and electronic medical records available at the Specialized Assistance Service (SAE) of Ponta Grossa and will be reviewed to ensure the best description of the cases. Data will also be collected from the Laudo and SICLOM electronic systems. It is expected, from the results, to describe the epidemiological and clinical profile of PLWHA to assist the service in understanding their characteristics for a better direction of health actions.

Keywords: HIV, Hepatitis B, coinfection.

RESUMEN

Objetivo: La coocurrencia de infecciones en personas que viven con VIH/SIDA crea grandes desafíos clínicos y de salud pública, lo que requiere una comprensión integral de la situación local, caracterizando patrones de coinfección y factores de riesgo asociados. El presente estudio tiene como objetivo verificar la prevalencia de hepatitis B (VHB), así como las características epidemiológicas y clínicas en personas que viven con VIH/SIDA (PVVS) en la región de Campos Gerais. Los datos fueron recolectados por medio de expedientes físicos y electrónicos disponibles en el Servicio de Asistencia Especializada (SAE) de Ponta Grossa y serán revisados para garantizar la mejor descripción de los casos. También se recolectarán datos de los sistemas electrónicos Laudo y SICLOM. Se espera, a partir de los resultados, describir el perfil epidemiológico y clínico de las PVVS para auxiliar al servicio en el conocimiento de sus características para una mejor orientación de las acciones de salud.

Palabras clave: VIH, Hepatitis B, coinfección.

ORIGINAL

Introduction

Coinfection with hepatitis B virus (HBV) and by human deficiency virus (HIV) represents a significant clinical and public health challenge, specially in vulnerable populations. Studies points that approximately 5.1% of HBV cases presents coinfection with HIV, due to common transmission routes - Sexual, vertical and parenteral.¹⁻² This reality requires rigorous screening, which includes the application of biannual testing for HBsAg and total Anti-HBc, as well as verification of the vaccination status of the infected individuals¹.

The presence of HBV in PLHIV is associated with a worse prognosis, directly influencing the therapeutic outcomes and increasing the risk of hepatic complications, like fibrosis acceleration, development of hepatocellular carcinoma, cirrhosis and hepatic decompensation, increasing mortality by up to 50%¹⁻². From the therapeutic perspective, the coinfection treatment aims to suppress HBV, recommending the immediate start of antiretroviral therapy, including agents with properties against both the viruses, such as Tenofovir, regardless of the CD4+ T-lymphocytes count. Stands out, still, the importance of monitoring inflammatory syndrome of immune reconstitution in the first three months of therapy, given the increasing risk of drug-associated hepatotoxicity.

Objectives

This study aims to investigate the prevalence of Hepatitis B in people living with HIV/AIDS in the Campos Gerais region, based on the analysis of data collected in electronics and physical medical records, as well as from Laudo and SICLOM systems. By characterizing the epidemiological and clinical profile of these patients, we hope to provide insights that contribute to the improvement of public health strategies and the targeting of more effective therapeutic actions for this population.

Methodology

The patients diagnosed with the human immunodeficiency virus (HIV) in the region of Campos Gerais have been selected. Onwards, those who also had the hepatitis B virus (HBV) have been identified, crossing the information from the Hepatitis B and HIV medical records. The medical records from Serviço de Assistência Especializada (SAE) and the electronic medical records from LAUDO and SICLOM systems were used for data collection.

The following variables were analyzed: sex, age, year of HIV and HBV diagnosis, treatment duration, viral load, CD4 count, and treatment plan. The lack of representativity of the sample compared to the total population of Campos Gerais and the low reliability and availability of data in the analyzed medical records are few of the limitations that appeared throughout this research.

The ruling ethical and regulatory guidelines guaranteed that every data were dealt with safety. Measures were taken to protect the patients and their personal data's privacy.

Results

Thirty-two patients living with HIV/AIDS and hepatitis B (HBV) coinfection in the Campos Gerais region were analyzed. The majority of patients were male (68.75%, n=22), while 31.25% (n=10) were female. Regarding race/color, 81.25% (n=26) of the patients self-identified as white and 18.75% (n=6) as mixed race.

Regarding the level of education, a heterogeneous distribution was observed: 3.13% (n=1) of patients had 1 year of study; 12.5% (n=4) had 2 years of study; 31.25% (n=10) had 3 years of study; 12.5% (n=4) had 4 years of study; 25% (n=8) had 5 years of study; and 3.13% (n=1) reported 8 years of study.

The main route of HIV transmission in these patients was sexual, corresponding to 84.38% (n=27) of cases. Blood transmission was reported in 6.25% (n=2) of patients, while 9.38% (n=3) of cases were classified as undetermined transmission. Regarding sexuality, 65.63% (n=21) of patients declared themselves heterosexual, 9.38% (n=3) homosexual, 3.13% (n=1) bisexual, and 21.88% (n=7) did not report their sexual orientation.

The age range of patients varied between 30 and over 70 years, with the majority concentrated in the 40-49 age group (34.38%, n=11). Other age groups included: 15.63% (n=5) between 30 and 39 years; 12.5% (n=4) between 50 and 59 years; 21.88% (n=7) between 60 and 69 years; and 15.63% (n=5) over 70 years. No patients under 30 years of age were recorded.

Discussion

This study describes the epidemiological profile of patients with HIV/HBV coinfection in the Campos Gerais region, highlighting important characteristics that can guide prevention and treatment strategies. The male predominance (68.75%) is in line with available studies, which indicate greater vulnerability of men to sexually transmitted infections, possibly due to more frequent risk behaviors, such as injecting drug use and unprotected sex.⁴

Sexual transmission as the main form of HIV transmission (84.38%) reinforces the need to intensify prevention campaigns focused on condom use and rapid HIV and HBV testing in sexually active populations. The presence of blood-borne transmission cases (6.25%) suggests the importance of monitoring practices such as needle sharing and safety in medical and dental procedures.

The age distribution of patients, with a higher concentration in the 40- to 49-year-old age group (34.38%), reflects the aging of the population living with HIV, a phenomenon observed globally due to the effectiveness of antiretroviral therapy.⁵ However, coinfection with HBV can complicate the clinical management of these patients, increasing the risk of progression to cirrhosis, hepatocellular carcinoma, and hepatic decompensation.¹⁻² The absence of patients under 30 years of age may indicate an improvement in prevention strategies among young people, but it may also be the result of underreporting or reduced access to diagnostics in this age group.

Heterosexuality as the predominant sexual orientation (65.63%) contrasts with studies that indicate a higher prevalence of HIV/HBV coinfection among men who have

sex with men.⁶ However, the high proportion of patients who did not report their sexual orientation (21.88%) may indicate information bias, highlighting the need for more sensitive approaches during data collection.

Limitations of this study include the lack of representativeness of the sample in relation to the total population of Campos Gerais and possible underreporting of data in the analyzed medical records. Despite this, the results offer valuable insights for planning public health actions, such as intensifying prevention campaigns targeting vulnerable populations and implementing health education strategies to reduce the sexual transmission of HIV and HBV.

Conclusion

This study aimed to investigate the prevalence and characteristics of people living with HIV/HBV coinfection in the Campos Gerais region. The results revealed a specific profile, marked by a predominance of males aged 40 to 49, and sexual transmission as the main mode of transmission, which significantly contributes to understanding the local epidemiological scenario.

The evidence presented here is of immediate practical value for public health, especially for the Specialized Assistance Service (SAE), guiding the improvement of health strategies, such as focused prevention campaigns, active search and more effective clinical monitoring for this group of patients.

The study's limitations, such as sample representativeness and reliance on secondary data, are acknowledged. However, the findings are crucial and pave the way for future research, such as prospective studies that can assess liver disease progression and response to antiretroviral treatment in this population. Therefore, we conclude that this work is a fundamental step toward optimizing care and health policies for people with HIV/HBV coinfection in the region.

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Correspondent author:

Eduardo Berto Rech
Rua Afonso Arinos, Uvaranas, CEP: 84026-110.
Ponta Grossa, Paraná, Brasil.
eduardoberto.r@gmail.com