



NOTE PREVIEW ARTICLE

FUNGAL AND BACTERIAL INFECTIONS IN HOSPITALIZED HIV CARRIERS INFECÇÕES FÚNGICAS E BACTERIANAS EM PORTADORES DE HIV HOSPITALIZADOS INFECCIONES FÚNGICAS Y BACTERIANAS EN PORTADORES DE VIH HOSPITALIZADOS

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ABSTRACT

Objective: to investigate the occurrence of fungal and bacterial infections in hospitalized HIV patients in a university hospital. **Method:** this is a quantitative, descriptive, retrospective, cross-sectional study. Data will be collected from patients who were hospitalized in a university hospital, suffering from HIV infection, through research in printed and electronic medical records. **Expected results:** we intend to know the frequency of fungal and bacterial infections, especially tuberculosis, that affects the patient with HIV and the efficiency of blood culture as a diagnosis of invasive bacterial and fungal infections. **Descriptors:** HIV; Coinfection; Acquired Immunodeficiency Syndrome; Bacterial Infections; Hospital Infection; Combined Therapy.

RESUMO

Objetivo: investigar a ocorrência de infecções fúngicas e bacterianas nos pacientes portadores de HIV hospitalizados em um hospital universitário. **Método:** trata-se de estudo quantitativo, descritivo, retrospectivo, tipo transversal. Coletar-se-ão dados dos pacientes que estiveram internados em um hospital universitário, acometidos por infecção pelo HIV, por meio de pesquisa em prontuários impressos e eletrônicos. **Resultados esperados:** pretende-se conhecer a frequência de infecções fúngicas e bacterianas, especialmente a tuberculose, que acometem o paciente portador do HIV e a eficiência da hemocultura como diagnóstico de infecções bacterianas e fúngicas invasivas. **Descritores:** HIV; Coinfecção; Síndrome de Imunodeficiencia Adquirida; Infecções Bacterianas; Infecção Hospitalar; Terapia Combinada.

RESUMEN

Objetivo: investigar La ocurrencia de infecciones fúngicas y bacterianas en los pacientes portadores de VIH hospitalizados en un hospital universitario. **Método:** se trata de un estudio cuantitativo, descriptivo, retrospectivo, tipo transversal. Se recolectarán los datos de los pacientes que estuvieron internados en un hospital universitario, acometidos por infección por el VIH, por medio de investigaciones en prontuarios impresos y electrónicos. **Resultados esperados:** se pretende conocer la frecuencia de infecciones fúngicas y bacterianas, especialmente la tuberculosis, que afectan al paciente portador del VIH y la eficiencia de la hemocultura como diagnóstico de infecciones bacterianas y fúngicas invasivas. **Descritores:** VIH; Coinfección; Síndrome de Inmunodeficiencia Adquirida; Infecciones Bacterianas y Micosis; Infección Hospitalaria; Terapia Combinada.

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INTRODUCTION

It is known that human immunodeficiency virus (HIV) infection is still a public health problem despite the worldwide effort to reduce new cases of AIDS-related infection, discrimination and mortality.¹

It is revealed, although many countries have experienced decreases in mortality and new cases of HIV / AIDS, whereas others have increased incidence of infection.² In Brazil, from 2007 to June 2017, in the Information System for Notifiable Diseases (SINAN), 194,217 cases of HIV infection were notified.³

The course of the disease caused by HIV is compounded by severe immune system dysfunction as the CD4 + T lymphocytes (CD4 +), lymphoid tissue cells involved in the immune defense of the individual and one of the main target cells of the virus. Opportunistic infections caused by microorganisms that are not usually pathogenic, that is, incapable of triggering disease in immunocompetent persons, appear once aggravated by immunodepression. One can, however, normally pathogenic microorganisms also possibly cause opportunistic infections.⁴

It is pointed out, in particular, in the Clinical Protocol and Therapeutic Guidelines (CPTG) for the management of HIV infection in adults, updated in 2018 by the Ministry of Health (MH), the emergence of opportunistic infections and neoplasms as defining characteristics of AIDS.⁵

There is little epidemiology of invasive fungal infections when compared to other infections, but the issue deserves special attention due to its increased incidence, especially in relation to diseases that cause immunodepression, such as AIDS.⁶

In addition to fungal infections, bacterial infections caused by other microorganisms, such as protozoa, frequently affect people living with HIV (PLHIV). Tuberculosis (TB) is an important scenario in this context, since, according to the World Health Organization, it is the ninth largest cause of death in the world, with an estimated 1.6 million deaths between PVHIV in 2016.⁷ In addition, the diagnosis of HIV-associated tuberculosis (TB / HIV) is especially challenging, since HIV-infected patients produce less sputum and are more likely to have disseminated disease, which other diagnostic methods, among which is the search for *M. tuberculosis* in blood and urine.⁸⁻¹¹

In view of the above and considering the increased incidence of HIV infection and coinfections, the following guiding questions were defined:

- What are the epidemiological and clinical characteristics of hospitalized PLHIV?

- What is the frequency of fungal and bacterial coinfections, emphasizing tuberculosis, which is the major cause of death among PLHIV?

OBJECTIVE

- To investigate the occurrence of fungal and bacterial infections in hospitalized HIV patients in a university hospital.

METHOD

This is a retrospective, transversal, descriptive and exploratory study, with a quantitative approach. Data will be collected from patients who were hospitalized at a university hospital during the study period, suffering from HIV infection, through research in printed and electronic medical records. An individual data collection instrument will be used, which will contain sociodemographic and clinical profile data, life habits, personal background, data on HIV infection, and coinfection data. The data will be analyzed through descriptive statistics. The medical records of patients over 18 years of age who present HIV infection will be included at the university hospital in an inpatient setting. The legal provisions of Resolution of the National Health Council No. 466/2012 shall be respected.¹²

This project was approved by the Local Research Ethics Committee on August 29, 2018, under the number of CAAE 90732618.4.0000.5152.

EXPECTED RESULTS

It is intended to know the frequency of fungal and bacterial infections, especially tuberculosis, that affect the patient with HIV, and the efficiency of blood culture as a diagnosis of invasive bacterial and fungal infections. Can such information be useful for the development of instruments for the prevention and diagnosis of these infections associated with HIV and AIDS, besides favoring and subsidizing new studies on the chosen theme.

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