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Original Research Paper

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NEUROLOGICAL OPPORTUNISTIC INFECTIONS IN HIV

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ABSTRACT HIV is one of the most dreaded viruses witnessed by mankind in the last century. It is known to compromise the immune system which leads to a variety of clinical manifestations. Opportunistic infections arise in such an immune deficient state and neurological infections are an important component of all such disorders. Prompt initiation of anti retroviral therapy along with early specific treatment of the individual infections leads to a significant symptom control. In this study, we present our data on neurological opportunistic infections in HIV patients at a tertiary care hospital in India.

KEYWORDS : Hiv, Opportunistic Infections Hiv-human Immunodeficiency Virus

INTRODUCTION :

Human Immunodeficiency Virus (HIV) is a single stranded RNA virus known to infect humans and causing multisystem dysfunction. Survival in people infected with HIV has improved because of an increasing battery of antiretroviral treatments, but neurological symptoms due to associated conditions, including infection with hepatitis C virus, malnutrition, and the effects of accelerated cardiovascular disease and ageing, are increasingly salient. Despite the advances in antiretroviral therapy, CNS opportunistic infections remain a serious burden worldwide. Most opportunistic infections can be recognised by a combination of characteristic clinical and radiological features and are treatable, but some important challenges remain in the diagnosis and management of HIV-associated opportunistic infections[1].

AIMS AND OBJECTIVES:

To study about the clinical profile of neurological opportunistic infections in HIV.

MATERIAL AND METHODS :

This was a retrospective observational study done on the patients admitted at a tertiary care teaching hospital from Central India. All patients who were HIV positive and were diagnosed to have one or more neurological opportunistic infections were studied for their clinical profile.

RESULTS :

25 patients who were diagnosed to have neurological opportunistic infections were included in the study. 14 were males while 11 were females. Most common symptom of presentation was headache followed by seizures, fever, focal weakness, altered sensorium and blurring of vision. Detailed clinical examination and thorough available investigations including MRI brain (CSF analysis and EEG when required) were carried out in all these 25 patients and various opportunistic infections identified. CNS tuberculosis(including TB meningitis and brain tuberculomas) was the most common infection identified in 13 patients (52%) followed by 6(24%) patients of cryptococcal meningitis, progressive multifocal leucoencephalopathy in 3(12%) patients, CNS toxoplasmosis in 3(12%) patients and primary CNS lymphoma in 1(4%) patient respectively(Table 1). Majority of the patients were either started or where already on anti retroviral therapy. 7(28%) patients expired during their hospital stay while others were discharged with either residual deficits or complete relief in their clinical features.

Table 1 : Total number of infections

Opportunistic infection	Total patients
CNS tuberculosis	13(52%)
Cryptococcal meningitis	6(24%)
Progressive multifocal leucoencephalopathy	3(12%)
CNS toxoplasmosis	3(12%)
Primary CNS lymphoma	1(4%)

DISCUSSION :

HIV/AIDS is a complex of viral disease in humans which are associated with a variety of opportunistic infections. Neurological infections are an important cause of morbidity as well as mortality. Diagnostic tools have increased our knowledge for proper identification as well as early initiation of management of all such patients. Antiretroviral therapy with constant new additions with each passing decade has helped in management of all such patients. However, unawareness and poverty contributes significantly to mortality. The most common neurological opportunistic infections are cerebral toxoplasmosis, cryptococcal meningitis, tuberculous meningitis, Progressive Multifocal Leucoencephalopathy (PML), CMV encephalitis and CMV polyradiculomyelitis[2]. Early detection of this disease and knowledge on the epidemiology, clinical manifestations, diagnosis and therapy are absolutely necessary for proper management of these deadly complications[3,4].

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