

AN OBSERVATIONAL STUDY ON OCULAR MANIFESTATION IN HIV PATIENTS IN TERTIARY CARE CENTRE, MANDYA

Ophthalmology

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ABSTRACT

Introduction: HIV Infection results in a slowly progressive systemic disease with specific targets and sequelae resulting in a final stage as Acquired Immunodeficiency Syndrome. HIV infection affects more than one organ affecting all the tissues and organs of the body. Eye is the one of the most common organs affected due to HIV. **Aim & Objective:** To study the various ophthalmological clinical manifestations in HIV seropositive patients attending OPDs and admitted at Mandya Institute of Medical Sciences, Mandya. **Methodology:** All the HIV positive patients attending OPD and admitted in hospital during the study period were included in the study. Detailed physical examination, ophthalmic examination and relevant investigations were undertaken and noted in a pre-structured proforma. **Results:** Of 150 HIV seropositive who were examined during study period, 70 patients had ocular manifestations and 22(31.42%) cases were found to have more than one ocular manifestation. Among those, CMV retinitis is the commonest ocular manifestation. **Conclusion:** This present study reinforces the fact that eye is a commonly affected organ in HIV infected persons and ocular manifestations are one of the important clinical markers and may be the first clue of HIV infection

KEYWORDS

HIV, AIDS, Ocular manifestations, CMV retinitis

INTRODUCTION

HIV Infection results in a slowly progressive systemic disease with specific targets and sequelae, characterized by gradual depletion of CD4 bearing T cells, opportunistic infections, neoplasms and degenerative neurologic disease resulting in a final stage as Acquired Immunodeficiency Syndrome (AIDS). The impact of the AIDS epidemic is already severe and continues to increase over the next decades.¹

HIV infection affects more than one organ affecting all the tissues and organs of the body. Eye is the one of the most common organs affected due to HIV. Ocular lesions are varied and affect almost all structures of the eye. Ocular lesions occur in as many as 70% of the patients with HIV and can be its initial manifestation.² So, this research aims to study the various ophthalmological clinical manifestations in HIV seropositive patients attending OPDs and admitted at Mandya Institute of Medical Sciences, Mandya.

MATERIALS AND METHODS

All the HIV positive patients attending OPD and admitted in hospital during the study period were included in the study. The three rapid tests (Comb Method, Capillus Method, Tridot Method) were used for the diagnosis of HIV seropositivity. Detailed physical examination, ophthalmic examination and relevant investigations were undertaken and noted in a pre-structured proforma.

RESULTS

A total of 150 HIV seropositive patients were included in the study. Among them 71.42% of patients were in the age group of 21-50 years and 68.57% of patients were males, 31.43% were females. Regarding the mode of transmission heterosexual (82.86%) was the most common route involved.

In the present study, 37.14% patients were from urban areas and 62.86% patients from rural areas. In the present study 18 patients (25.71%) were illiterates and majority of the patients in the study were literates. Among patients in present study, majority of them were married 54(77.14%), 8(11.43%) were unmarried and 3 patients (4.29%) were divorced.

Of 150 HIV seropositive who were examined during study period, 70 patients had ocular manifestations.

Table – 1: Prevalence of Ocular Manifestations

Total Patients	With ocular manifestations	Without Ocular Manifestations
150	70(46.67%)	80(53.33%)

Higher prevalence was noted in the age group of 31-40 year in both the sexes amounting to 40% with male to female ratio being 2.18:1. In the present study 22(31.42%) cases were found to have more than one ocular manifestation.

Among those with ocular manifestations, 22(31.42%) patients had CMV retinitis, which is the commonest.

manifestation. Gaze palsy (1.43%), band shape keratopathy (1.43%) were less commonly seen lesions.

Table – 2: Ocular Manifestations

MANIFESTATIONS	NUMBER	PERCENTAGE
CMV RETINITIS	22	31.42%
HIV RETINOPATHY	13	18.57%
HZO	12	17.14%
ANTERIOR UVEITIS	11	15.71%
MOLLUSCUM CONTAGIOSUM	10	14.30%
CHORIORETINITIS	6	08.57%
VIRAL KERATITIS	5	07.14%
BLEPHARITIS	3	04.28%
TOXOPLASMOSIS	2	02.86%
OPTIC ATROPHY	2	02.86%
FROSTED BRANCH ANGITIS	2	02.86%
RETINAL DETACHMENT	2	02.86%
GAZE PALSY	1	01.43%
BAND-SHAPED KERATOPATHY	1	01.43%

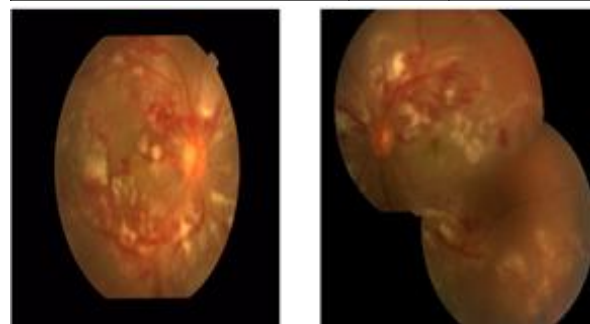


Figure 1: CMV Retinitis

In the study, the incidence of CMV retinitis was more in males, amounting to 81.82% and in females it was 18.18%. Male to female ratio was 4.5:1. Also, 86.36% of cases were in age group of 21 to 40 year.

Among the 70 patients with ocular manifestation, 49 were unskilled labour and who were mainly uneducated, daily wage workers.

DISCUSSION

In the present study, out of 150 patients with HIV, 70 patients had ocular manifestations. The prevalence of ocular manifestations in HIV patients in various studies varies from 40 to 73.08%.²⁻⁷

In our study, 22(31.4%) patients were affected with CMV retinitis, which was found to be most common ocular manifestation in HIV patients. CMV retinitis is also the most common opportunistic infection in the HIV infected patients in the studies conducted in the other parts of the world. Biswas J et al also found it as most common manifestation, but a lesser incidence (23%) was reported in African study by Awan et al.^{4,5}

The second common ocular manifestation in present study was HIV retinopathy, seen in 13(18.57%) patients. It is also common manifestation in other studies. A higher incidence (50%) was seen in American study by Jabs et al.⁶

Incidence of HZO in present study is 17.14% while Awan et al reported an incidence of 23%.⁶ 11(15.71%) patients in present study anterior uveitis, which was idiopathic and no specific cause was established.

10(14.28%) patients had molluscum contagiosum, and most of the patients presented with multiple lesions. In the present study we found a higher incidence of molluscum contagiosum in comparison to other studies.

CONCLUSIONS

Eye is commonly affected organ in patients with HIV infection and the present study reinforces this fact, with 46.67% HIV patients of the study having ocular manifestations. CMV retinitis was the most common ocular lesion found in this study.

Thus, this present study reinforces the fact that eye is a commonly affected organ in HIV infected persons and ocular manifestations are one of the important clinical markers and may be the first clue of HIV infection.

With continued spread of AIDS pandemic and increased survival of its victims with HAART, greater attention should be focused on its ophthalmic manifestations. The ophthalmologists should be able to recognize the common ocular lesions and HIV testing should be obtained when atypical or unusual ocular lesions are seen.

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