

**OCULAR MANIFESTATIONS IN PEOPLE LIVING WITH HIV AND AIDS IN COASTAL ANDHRAPRADESH, INDIA**



**Medical Science**

KEYWORDS :

<b>DR.G.RAVIBABU</b>	MS ASSOCIATE PROFESSOR OF OPHTHALMOLOGY , GUNTUR MEDICAL COLLEGE , GUNTUR , (AP) INDIA
<b>DR.G.SERINA SAMUEL</b>	MS ASSISTANT PROFESSOR OF OPHTHALMOLOGY , GUNTUR MEDICAL COLLEGE , GUNTUR , (AP) INDIA
<b>DR.A.V.PITCHI REDDY</b>	MS ASSISTANT PROFESSOR OF OPHTHALMOLOGY , GUNTUR MEDICAL COLLEGE , GUNTUR , (AP) INDIA
<b>DR. ARUNA KUMARLS</b>	FINAL YEAR POST GRADUATE , GUNTUR MEDICAL COLLEGE , GUNTUR , (AP) INDIA

**ABSTRACT**

*HIV / AIDS is one of the most feared infectious disease of the late 20th century. HIV / AIDS is a multisystem disease but ophthalmic disease affects 45 – 70 % of patients with HIV infection. HIV can affect eye directly or indirectly by means of various opportunistic Infections*

**AIMS AND OBJECTIVES:**

1. To study the ophthalmic aspects of Human Immunodeficiency Virus infected and acquired Immuno deficiency Syndrome patients.
2. To determine the prevalence and frequency of common ocular diseases in people living with HIV/ AIDS.

**Results:**

*A Total of 100 patients who are HIV Seropositive in various stages of the infection were evaluated comprising of 67 male (67%) and 33 female (33%) patients. Total No. of ocular findings in 69 patients are 126 (adnexal lesions - 44(44%), anterior segment 32 (32%), posterior segment - 43(43%), Neuro-ophthalmic manifestations - 7(7%). Isolated lesions were seen in 26 patients.*

**INTRODUCTION**

In India HIV was identified in 1986 in commercial sex workers in Chennai and later in Intravenous (IV) drug abusers in Manipur. Ocular lesions associated with AIDS were first reported in India in 1995 . India has the third largest number of people living with HIV in the world-2.1 million [1.7 million- 2.7 million] at the end of 2013-and accounts for about 4 out of 10 people living with HIV in the region.

The Overall HIV prevalence at the state level shows 60% of HIV burden in the six high prevalence states. Except for Andhra Pradesh and Nagaland with a median HIV prevalence of 1 %, all other states have shown less than 1 % .Among states, Andhra Pradesh is estimated to have the highest number of new adult HIV infections in 2011 (16,603). 17 out of 23 districts in the Andhra Pradesh State reported less than 1 % of incidence with highest incidence in Prakasam and lowest in Rangareddy district.

AIDS is a multisystem disease but ophthalmic disease affects 45 – 70 % of patients with

HIV infection. HIV can affect eye directly or indirectly by means of various opportunistic Infections.

**MATERIALS AND METHODS**

This study was conducted in the Department of Ophthalmology, Guntur Medical College I Government General Hospital, Guntur. The present study is hospital based prospective study comprises 100 cases of HIV positive patients attending to Ophthalmology outpatient department and referrals from the Department of Dermatology and Venereology, Department of General Medicine, Government Fever Hospital and other Departments between January 2013 to September 2014.

A total of 100 patients who are HIV Seropositive in various stages of the infection were evaluated comprising of 67 male (67%) and 33 female (33%) patients. The age range was 11 years to 60 years with a mean age of 35 years. More than 90% of the patients were in the 15-49 years age group which is the high risk group for HIV infection.

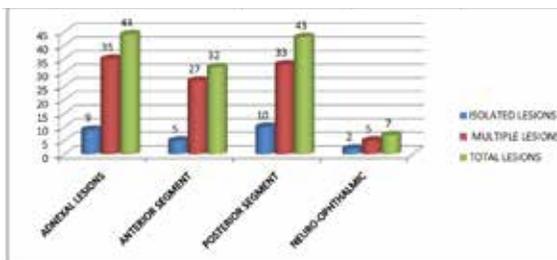
**OBSERVATIONS AND RESULTS**

**OCULAR MANIFESTATIONS OF HIV POSITIVE PATIENTS**

No.of HIV positive cases – 100 patients

Ocular manifestations seen – 69 patients

SL. NO.	OCULAR LESIONS	CASES WITH ISOLATED LESIONS	CASES WITH MULTIPLE LESIONS	TOTAL NO. OF LESIONS
1	ADNEXAL LESIONS	09(9%)	35 (35%)	44 (44%)
2	ANTERIOR SEGMENT	05 (5%)	27 (27%)	32 (32%)
3	POSTERIOR SEGMENT	10 (10%)	33 (33%)	43 (43%)
4	NEURO-OPHTHALMIC	02 (2%)	05 (5%)	7 (7%)



**DISCUSSION**

In the present study conducted at Government General Hospital , Guntur a total of 100 patients who are HIV Seropositive in various stages of the infection were evaluated comprising of 67 male (67%) and 33 female (33%) patients. In this study most patients were in stage III (43%) followed by stage IV (37%) and stage II (14%) and stage I (6%). CD4+ T lymphocyte counts can be a reliable predictor of ocular complications of HIV infections. The present study had 4 patients with CD4 count less than 100 cells/ µl and all these patients (100%) ocular manifestations with lesions in both the anterior and posterior segments synchronously. Lack of awareness and social stigma associated with the disease could be the reason for the delayed

presentation. 91 patients (91 %) a CD4 count of less than 400 cells/ $\mu$ l accounted for 43 adnexal lesions, 31 anterior segment lesions, 43 posterior segment lesions and 6 neuro-ophthalmic lesions. 33 patients have ocular lesions when the CD4 counts are less than 200 and 58 patients have less than 300 cells/ $\mu$ l. 5 cases have ocular lesions when the CD4 counts are more than 400 cells/ $\mu$ l. However the study showed a positive association between ocular adnexal findings, ocular anterior segment findings, posterior segment and neuro-ophthalmic findings with the level of CD4 count.

**FIGURE-1 - Right Eye Ocular Surface Squamous Neoplasia**



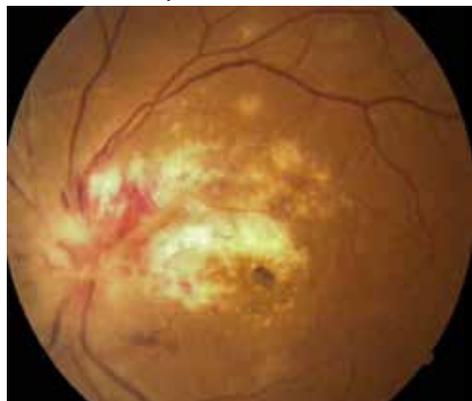
**FIGURE-2- Both Eyes Ulcerative Blepharitis**



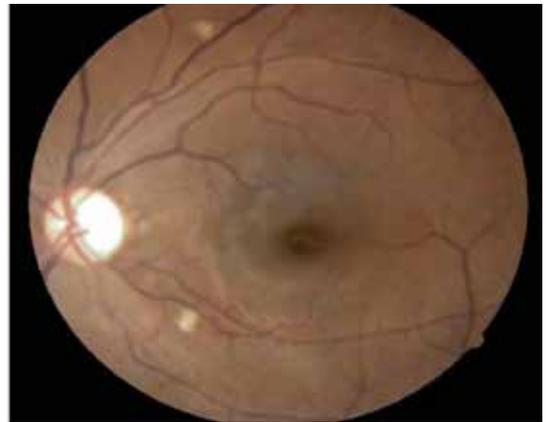
**FIGURE-3- Left Eye Anterior Uveitis (Corneal edema & Hypopyon)**



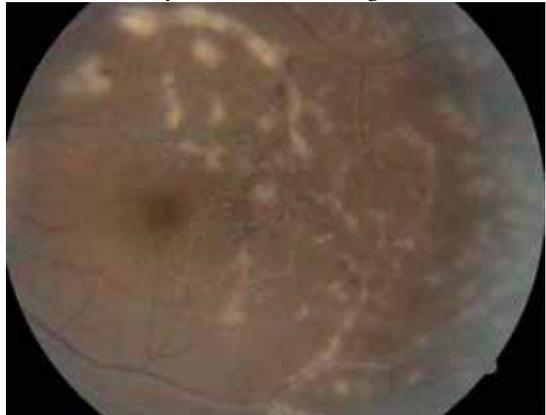
**FIGURE-4- Left Eye CMV Retinitis**



**FIGURE-5- Left Eye – Cotton Wool Spots**



**FIGURE-6- Left Eye Frosted Branch Angitis**



**FIGURE-7 - Right Eye Complicated Cataract**



**FIGURE -8- Right Eye Optic Atrophy**



**CONCLUSION**

1. Our challenges now in the management of HIV patients are to build on what has been achieved and to focus resources on the suitable communities in our sub-continent.
2. The goal of vision 2020 is to enable all persons to receive eye care and have the right to sight, which is one of their fundamental human rights.
3. Ocular findings were directly related to the severity of the disease and to the severity of immune suppression.
4. Eye care should be a part of medical care in the management of HIV/AIDS patients.
5. Children with HIV infection should have an ocular examination
6. The cost of therapy and treatment of opportunistic infection is one of the major limiting factors in the management of ocular manifestation in AIDS patients in India.
7. HIV has a very varied ophthalmic spectrum and it is important to maintain a high level of suspicion for timely detection and treatment of ocular morbidity to give the patient a better quality of life.
8. Since no effective management is readily available, prevention through proper counseling appears to be the only defense against AIDS in India

**REFERENCE**

1. Soman .K. Purandhare B. HIV and the ophthalmologist , Indian Journal Of ophthalmology. 2008; 355-6
2. Cunningham ET, Jr, Margolis TP. Ocular manifestations of HIV infection. N Engl J Med 1998; 339:236-44
3. Turner B J, Hect FM ,Ismail RB. CD4+T lymphocyte measures in the treatment of individuals infected with Human Immunodeficiency Virus type 1: A review for clinical practitioners. Arch Intern Med 1994; 154:1561-73.
4. Biswas J, Raman R. Acquired immunodeficiency syndrome and eye . Saxena S. clinical practice in ophthalmology 1<sup>st</sup> ed. New delhi: Jaypee;2003. 286-305.
5. Sankar Nethralaya insight report.- est/2009
6. Adnexal and anterior segment manifestations of HIV-AIDS. International Ophthalmology Clinics 2007;47:15-32.
7. Park text book of social and preventive medicine , 22<sup>nd</sup> edition 2013;316-331
8. UNAIDS GAP report 2013; 119-270.
9. Biswas J. Ant . seg . manifestation of HIV/ aids, Indian journal of ophthalmology 2008;56; 363-75.
10. Technical report India HIV estimates -2012; NACO