



ORIGINAL RESEARCH PAPER

Ophthalmology

A CASE SERIES REPORT OF PREVALENCE OF OCULAR MANIFESTATIONS IN 100 PATIENTS WITH HIV/AIDS.

KEY WORDS:

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AIM:

An Observational Case Study of ocular manifestation in HIV Patient in tertiary care centre.

Study Design:

Observational Case Study.

Place of Study:

Department of Ophthalmology
Government Dharmapuri medical college and Hospital

Period of Study:

JULY 2020 To JULY 2021

Duration:

One year

Study Group:

Patients in Ophthalmology OPD fulfilling inclusion criteria are selected for study group after getting proper consent.

Sample Size:

100

Inclusion Criteria:

1. All HIV patients presenting to Ophthalmology OPD.
2. All age group, males, females and transgender were included in the study.

Exclusion Criteria:

1. Patient with Visually significant cataract.
2. Patient with Diabetic retinopathy.

MATERIALS AND METHODS:

Patient fulfilling inclusion criteria after getting proper informed consent are evaluated in Ophthalmology Department as follows

- Visual acuity by Snellen chart
- Visual acuity with pinhole
- Torch light examination
- Slit lamp examination
- Automated refractometer
- OCT in needed cases
- Dilatation and Retinoscopy
- Fundus examination using 90 D lens and Indirect Ophthalmoscope

RESULTS

Table-1. Sex Distribution

SEX	NO OF PATIENTS	PERCENTAGE
FEMALE	32	32%
MALE	68	68%

From the above charts males are more commonly affected than females.

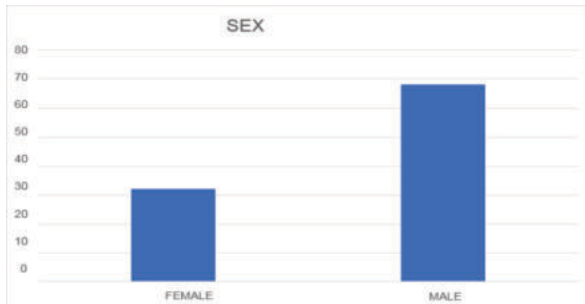
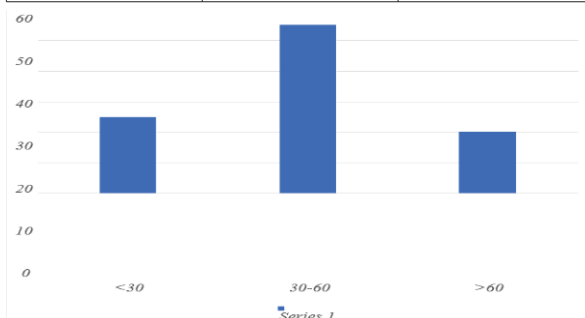


Table-2 Age Distribution

AGE GROUP	NO OF PATIENTS	PERCENTAGE
<30	25	25%
30 -60	55	55%
>60	20	20%

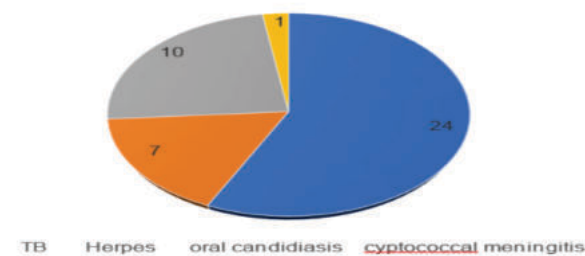


From the above chart between 30 to 60 years of age are more commonly affected.

Table-3 - Associated Systemic Infections

SYSTEMIC INFECTIONS	NO OF CASES	PERCENTAGE	OPHTHALMIC MANIFESTATION
TB	24	24%	14
Herpes	7	7%	3
Oral candidiasis	10	10%	5
Cryptococcal meningitis	1	1%	1

Systemic manifestations



Tuberculosis is the most common systemic disease associated with HIV Infected patients.

Others include oral candidiasis & herpes .

CD4 COUNT & OCULAR MANIFESTATIONS

Table 4 Cd4 Count And Ocular Manifestations

CD4 COUNT	No of pts/%	No of pts with ocular manifestations	No of pts with anterior segment manifestation	No of pts with posterior segment manifestation
<100	23 (23%)	14 (60.87%)	1(4.34%)	7(30.4%)
100-200	30 (30%)	16 (53.3%)	1(3.3%)	4(13.33%)
200-300	19 (19%)	11(57.9%)	0	2(10.52%)
300-400	13 (13%)	6(46%)	2(15.4%)	1 (7.7%)
>400	15 (15%)	7(46.67%)	3 (20%)	3(20%)
Total	100	54	7	17

Majority of the patients with ocular manifestations had CD4 Count <100 cells/ cu mm.

Table - 4 - Anterior Segment Manifestation In Hiv Patients

Anterior segment manifestation	No of cases
Uveitis	5
Dry eye	1
Keratitis	1

Uveitis

- 1 case associated with CMV retinitis
- 1 case associated with TB uveitis
- 1 case associated with Toxoplasma
- 2 case –chronic uveitis with festooned pupil

Anterior segment manifestation in HIV Pts

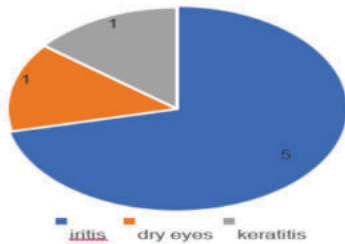
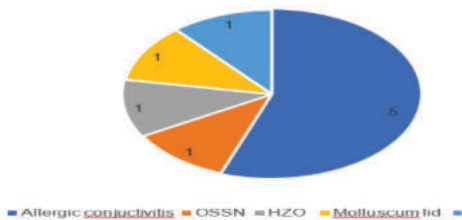


Table-5 Adnexal Manifestations In Hiv Patients

Adnexal Manifestation	No of patients
Allergic conjunctivitis	5
OSSN	1
HZO	1
Mollusum of lids	1
Blepharitis	1

Adnexal manifestations were seen in 9 of HIV infected patients.

Adenexal Manifestation in HIV



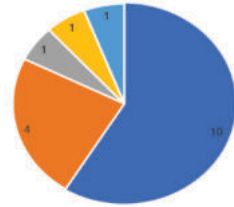
Posterior Segment Manifestations

Seen in 17 patients

Table 6 Posterior Segment Manifestation In Hiv Patients.

Posterior segment manifestation	No of pts	%
HIV Microangiopathy	10	58
CMV retinitis	4	23.5
Toxoplasma retinitis	1	5.9
TB Panuveitis	1	5.9
Old choroiditis scar	1	5.9

HIV Microangiopathy(cotton wool spots) was the most common lesion followed by CMV Retinitis in this study.



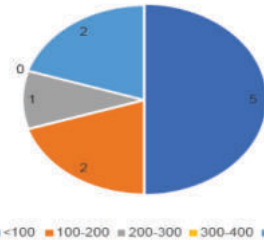
■ HIV Microangiopathy ■ CMV Retinitis ■ Toxoplasma retinitis ■ TB Panuveitis ■ Old choroiditis

TABLE -7 HIV Microangiopathy with CD4 COUNT.

CD4	HIV MicroAngiopathy	%
<100	5	21.7
100-200	2	6.7
200-300	1	5.26
300-400	0	0
>400	2	13.33
TOTAL	10	

Comprises 58% of patients having Posterior segment manifestations .With decrease in CD4 COUNT , the incidence of microangiopathy increases.

CD4 COUNT & HIV MICROANGIOPATHY



CONCLUSION

The present cross sectional study is an attempt to assess the frequency of Ocular manifestations in HIV infected patients and its correlation with CD4 count.

The study included 100 patients with 68 males and 32 females infected with HIV / AIDS attending Ophthalmology outpatient department in Government Dharmapuri medical college or referred from ART centre .

Ocular manifestations seen in 34 patients (34%).

Among patients with ocular manifestations.

- No. of patients with anterior segment manifestations is 7 (12.96%).
- No. of patients with posterior segment manifestations is 17 (31.48%).
- No. of patients with adnexal manifestations is 9 (26.47%).
- Most common systemic infection associated is tuberculosis.
- 60.8% of patients and patients with CD4 count < 100 cells/ cu mm have ocular manifestations.
- HIV microangiopathy is found to be the most common retinal manifestations (10%).

Ophthalmic manifestations of HIV disease are increasingly being recognized in the present era due to increased longevity of patients after HAART.

This emphasizes the necessity for early recognition of Ocular lesions and early treatment to provide good quality of vision, thereby providing good quality of life to patients infected with HIV. Regular Ophthalmic examination must be done preferably once in 6 months

in patients with CD4 count > 100 cells/cumm and once in 3 months in patients with CD4 count < 50 cells cu mm, since the sight threatening lesions can occur at any stage of HIV infection.

HIV patients should be educated about the Ocular manifestations and should be advised to undergo regular Ophthalmic examinations.

Health care professionals should be trained and educated to pick up early cases of Ophthalmic manifestations of HIV/AIDS thereby preventing vision threatening complications.

Timely referral for complete Ophthalmic examination and early institution of therapy should be done to help the cause of people living with HIV/AIDS.