



Hiv Related Ocular Conditions in Relation with Cd4 Count in Adults in Ggh Vijayawada -A Research Paper

KEYWORDS

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ABSTRACT

Background: HIV/AIDS is one of the 21 st centuries challenges to the human beings with protein manifestation affecting nearly all organs in the human body. It includes various clinical presentations which may be asymptomatic or atypical or they may be the initial manifestation of underline disease.The severity of these ocular lesions increases as the immune competency decreases leading to visual impairment or blindness .Astudy was conducted on 1175 patients in the year 2014 at ART centre with the aim:

Objective:

- a)To study ocular manifestation of HIV
- b)To correlate those manifestations with CD4 T lymphocyte count
- c) To determine the prevalence and the types of HIV associated ocular conditions.

Methods: Across sectional study involving a detailed ocular examination on the severity of the deteriorated vision in HIV cases was done. Data was collected by face to face interview clinical examination laboratory investigation, ocular examination, fundus examination. Automated perimetry, digital fundus photography, fundus florescent angiography were done for relevant cases.Only adults were included .Eye examinations were included best corrected visual acuity test, intraocular pressure measurement, 1. Anterior segment includes adnexal examination, pupillary reactions,iris. 2. Posterior segment includes dilated fundus examination and cranial nerve function test.The following tools were used for ophthalmic examination 1.snellen visual acuity charts,schiotz tonometer,indirect ophthalmoscope,slit lamp by microscope,20 D Volk lens,90 D Volk lens and Goldmen 3 mirror lens.To prevent cross contamination the instruments were cledned and disinfected with absolute alcohol for 10 minutes and again rinsed with Ringer lactate. For dilatation of the fundus 1% tropicamide with pheny ephrine was used.

INTRODUCTION:

Aids is a infectious disease caused by the gradual decrease in CD4+ T lymphocytes causing subsequent opportunistic infection and neaplasia.It is a blood borne and sexually transmitted infection caused by the HIV (HUMAN IMMUNODEFICIENCY VIRUS)

Approximately 36 million persons around the world are infected.Upto 70% of patients infected with HIV will develop some form of ocular involvement i.e., direct infection by HIV opportunistic infections and neoplasia.

HIV infection progresses through different phases.

RESULTS:

The study was conduted on 1175 patients between the age group of 20 to 50 who attended ART centre, government, general hospital, vijayawada (2014 january to December).

Patient attended to the ART centre with various complaints (Oportunistic infections) like Tuberculosis,Candidiasis, Upper respiratory infections,Urinary tract infections Diarrhoea ,CMV,Toxoplasmosis,PCP,Skin infection,STI,PML,Cryptococcal infections and Ocular problems.

Ocular manifestations correlating with immune status and stage of HIV infection.

When the CD4 + count deteriorates, the immune system fails and symptoms such a malaise,night sweats,fever and loss of weight develop as the infection progresses. Measuring the absolute CD4 count is an essential part of the staging the disease.

Ophthalmic manifestation includes

Around the eye	Front of the eye	Back of the eye	Neuro-ophthalmic
Molluscum contagiosum,	Dry eye ,	Retinal micro vasculopathy,	Headache
Herpes zoster ophthalmicus,	Anterior uveitis	CMV retinitis,	Retero orbital pain,
Kaposi's sarcoma,		Acute retinal necrosis,	Optic neuropathy,
Conjunctival squamous cell carcinoma,		Progressive outer retinal necrosis,	Aspergillosis
Trichomegaly		Toxoplasmosis	Facial nerve palsy,
Blepharitis		Retinochoroiditis,Syphillis retinitis,	Optic Atrophy
		Candida albicans edophthalmitis	

Table No:1

STAGE	CD4	EXTER-NAL EYE	ANTE-RIOR SEG-MENT	POS-TERIOR SEG-MENT	NEURO-OPH-THALMIC

Sero conversion	Above 500	Inflamed conjunctiva dry eye			Head-ache Retero orbital pain
Early HIV infection	500	Allergic conjunctivitis	Reiter's syndrome, Retinal vasculitis,	HIV retinopathy	Optic neuropathy
Intermediate infection	200-500	Dry eye, Blepharitis, Bacterial conjunctivitis, Follicular conjunctivitis, Kaposi's sarcoma, Mol-luscum contagiosum	Herpes zoster, Herpes simplex	HIV retinopathy, Tuberculous uveitis,	Hyperaemic disc, Pupillary abnormalities, Lateral rectus-palsy, Tosis
Late	0-200	Opportunistic infections and tumours affecting all ocular structure			

100-200	309	171 138		Toxoplasmic retinitis, progressive outer retinal necrosis, cryptococ-cola chori-dopathy	
200-300	259	132 127		Ocular tu-berculosis, pneumocys-tosis	Kaposi's sarcoma,lymphoma
300-500	282	125 157		Herpes zoster oph-thalmicus	

DISCUSSION:

The prevalence of ocular manifestation of HIV/AIDS infection was found to be approximately 21.36% .Due to in-creased numbers of ART centers,frequent monitoring of the CD4 count and early initiation of ART the incidence of ocular findings has decreased considerably.On the other-hand due to an increase in the lifespan of these patients it has been estimated that 60-70 % of the adult AIDS patients will experience an ocular complication at some point of their illness. It has been found the frequency and nature of ocular complications of HIV is related to the stage of the disease.The majority of the patients were in the intermediate stage of the disease.Reterobulbar optic neuritis is a common complication of HIV infection.Herpes zoster ophthalmicus is a commonly encountered infections among HIV positive patients.

CONCLUSION:

HIV related retinal microvasculopathy,Uveitis and Reterobulbar optic neuritis are the commonly encountered ocular manifestations and these are the potential causes to cause profound visual loss. Lower CD4 count is a risk as well as predictor for ocular manifestations.The ocular presentations of HIV infection will continue to be an important cause of visual morbidity among patients with HIV infection who are increasingly surviving for longer periods due to improved antiretroviral therapy and better management of opportunistic infections. The recognition of these ocular presentations as potential indicators of advanced HIV infection can provide important opportunities for HIV testing.

Table No:2: Type of ocular complication

CD4 COUNT	NO.OF PA-TIENTS	GEN-DER		VASCULAR	INFECTIVE	TUMOURS
		M	F			
Less than 50	160	92	68		Cytomaeg-alovirus retinitis	
50-100	165	83	82	Retinal microangiopathy conjunctival microvascu-lopathy,, retinopathy		

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