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Original Research Article

Study of Clinical Profile of Herpes Zoster Ophthalmicus in HIV-AIDS

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Abstract: Herpes Zoster Ophthalmicus (HZO) is common in HIV-AIDS due to immunosuppression. Individuals with HIV-AIDS have varied presentations and it is important to correlate clinical manifestations with their immunocompromised status as it can cause various ocular manifestations. Non randomized retrospective study of 20 patients with HIV-AIDS registered under ART who presented with Herpes Zoster Ophthalmicus from March 2014 to Dec 2014 in department of ophthalmology at Sassoon General Hospital, Pune. Data was collected on their medical history, clinical presentations and results of serological investigations. Detailed evaluation of clinical profile with ocular implications was done in each case. Ophthalmic features at presentation include cicatricial lid deformities, severe dry eye, Ulcerative keratitis and secondary bacterial keratitis, ulcerative keratitis with perforation, descemetocele. Disseminated herpetic lesions were present in all patients. Post herpetic neuralgia was present in 14 out of 20 patients. Final visual acuity ranging from 6/6 to PL+/PR Accurate. It conclude immunocompromised patients present with Herpes Zoster Ophthalmicus that is disseminated, more severe and less amenable to therapy with vision threatening complications.
Keywords: Herpes Zoster Ophthalmicus, HIV-AIDS, Ocular manifestations.

INTRODUCTION

Herpes Zoster is common infection caused by HHV3 member of Herpes viridae, the same family as HSV, EBV, CMV. Herpes Zoster Ophthalmicus (HZO) occurs when latent varicella zoster virus in trigeminal ganglion involving ophthalmic division of trigeminal nerve is reactivated. Of the three divisions of fifth cranial nerve, the ophthalmic is involved 20 times more than the others[1].HZO is serious infection because of its implications on vision and cosmetic blemish as it leaves in addition distressing post herpetic neuralgia. HIV positive patients have 15-25 times greater prevalence of Zoster compared to general population [2].HZO may be initial clinical manifestation of HIV infection. Pain associated with Herpes Zoster can be debilitating with serious impact on quality of life. With emerging AIDS pandemic adults with younger age are increasingly presenting with Herpes Zoster due to HIV. Relative risk of Herpes Zoster is at least 15 times greater in patients with HIV than in patients without HIV [3]. Study indicates that occurrence of HZO in individuals with HIV correlates strongly with immunosuppression. The present study was undertaken to highlight the clinical profile of HZO in individuals with HIV-AIDS.

MATERIALS AND METHODS

Non- randomised retrospective study of 20 patients with HIV-AIDS registered under ART who presented with Herpes Zoster Ophthalmicus from March 2014 to December 2014 in department of ophthalmology at Sassoon General Hospital, Pune. Data was collected on their clinical presentations, visual acuity at presentation and results of serological investigations. Detailed evaluation of clinical profile with ocular implications and a sequel was done in each case

RESULTS

The clinical data of 20 adults in age group of 40-50 years with HIV-AIDS with features of HZO were evaluated. Predominance of males 60% (12/20) among

the HIV-AIDS patients with HZO. Clinical features are summarized in (Table-1). All patients presented with skin lesions consistent with zoster involving the ophthalmic division of the trigeminal nerve on affected side of face and head. Right side affected in 80% subjects. Results of serological test for HIV were positive in all subjects while those of Hepatitis B and C, VDRL were negative for all the subjects. 18 out of 20 patients were on ART.

Table 1: Presenting clinical features of the study population

Observation	No of cases	Percentage of cases
Punctate keratitis	03	15%
Ulcerative keratitis	04	20%
Secondary bacterial keratitis	04	20%
Ulcerative keratitis with perforation	01	05%
Descemetocele	04	20%
Corneal melting	02	10%
Stromal keratitis	02	10%
Post herpetic neuralgia	14	70%

Table 2: Delay in hospital visit, clinical presentation and final visual outcome in patients with herpes zoster ophthalmicus HIV: Human immunodeficiency virus, PHN: Postherpetic neuralgia

Case	CD4 count	Delay in hospital visit	Presentation	Management	Final outcome (After 8 wks)	Final V/A (After 8 wks)	PHN (3 months)	Serological tests (HBsAg, HCV, VDRL)
1	384	24hrs	Punctate keratitis	Tab Acyclovir 800mg 5 times a day	Complete resolution	6/6	Absent	Negative
2	292	7-8 days	Ulcerative keratitis with perforation	Iv acyclovir followed by therapeutic keratoplasty	Graft failure	2/60	Present	Negative
3	111	48hrs	Punctate keratitis	Tab Acyclovir 800mg 5ti/d	Complete resolution	6/6	Absent	Negative
4	170	2 wks	Descemetocele	Tab Acyclovir 800mg 5ti/d	Adherent leucoma	4/60	Present	Negative
5	148	10 days	Secondary bacterial keratitis	Tab Acyclovir 800mg 5ti/d	Nebulomacular corneal opacity, Cicatricialentropion	2/60	Present	Negative
6	254	3 days	Stromal keratitis	Tab Acyclovir 800mg 5ti/d	Nebular opacity	6/18	Present	Negative
7	342	6 days	Ulcerative keratitis	Tab Acyclovir 800mg 5ti/d	Adherent leucoma	4/60	Present	Negative
8	182	12 days	Descemetocele	Tab Acyclovir 800mg 5ti/d	Adherent leucoma, Cicatricialentropion	3/60	Absent	Negative
9	173	2 weeks	Corneal melting	Iv acyclovir	Total corneal opacity with thinning	FCCF	Present	Negative
10	203	10 days	Descemetocele	Tab Acyclovir 800mg 5ti/d	Adherent leucoma	2/60	Present	Negative
11	227	5 days	Ulcerative keratitis	Tab Acyclovir 800mg 5ti/d	Total corneal opacity, Cicatricialentropion	FCCF	Absent	Negative
12	53	24 hrs	Punctate keratitis	Tab Acyclovir 800mg 5ti/d	Complete resolution	6/6	Present	Negative
13	129	5 days	Secondary bacterial keratitis	Tab Acyclovir 800mg 5ti/d	Nebulomacular opacity	6/60	Absent	Negative
14	112	12 days	Corneal melting	Iv acyclovir followed by therapeutic keratoplasty	Graft failure, entropion	FCCF	Present	Negative
15	281	7 days	Peripheral Ulcerative keratitis	Tab Acyclovir 800mg 5ti/d	Adherent keucoma	6/60	Present	Negative
16	76	3 days	Stromal keratitis	Tab Acyclovir 800mg 5ti/d	Nebular opacity	6/9	Present	Negative
17	266	5 days	Secondary bacterial keratitis	Tab Acyclovir 800mg 5ti/d	Nebulomacular opacity, Cicatricialentropion	3/60	Absent	Negative
18	289	7 days	Secondary bacterial keratitis	Tab Acyclovir 800mg 5ti/d	Adherent leucoma	4/60	Present	Negative
19	367	10 days	Descemetocele	Tab Acyclovir 800mg 5ti/d	Cicatricialentropion, adherent leucoma	2/60	Present	Negative
20	248	7 days	Ulcerative keratitis	Tab Acyclovir 800mg 5ti/d	Corneal scarring	PL, PR acc	Present	Negative

Visual acuity was variably impaired in all subjects. Conjunctival hyperemia and lid edema ranging from mild to severe in all subjects in acute phase. Hypoesthetic and dry corneal surface led to secondary bacterial keratitis.

Patients were followed up every 2 weeks for a duration of 2 months.

Visual outcome significantly was determined by the delay in hospital visit. Patients who presented within 48-36 hrs of onset of eye involvement regained

almost complete vision. Those who presented late had severe ocular involvement that was difficult to treat, and led to permanent visual impairment of variable degree.

Chronic sequelae in the form of cicatricial lid deformities, entropion, ectropion and focal loss of cilia and eyelid scars were present in some patients. Post herpetic neuralgia was present in 14 out of 20 patients at the end of 8 weeks. All patients were treated with proper medical and surgical measures

DISCUSSION

Herpes Zoster is uncommon in adults younger than 40 years of age and peak incidence occurs in fifth to seventh decade of life. Annual incidence of Herpes Zoster in adults 20-40 years old is 1.2 per 1000 person year as compared with 9.4 per 1000 person year in adults above 80 years of age in United States [4]. Similarly incidence of Herpes Zoster in European primary care population was lowest in young adults (1.9/1000 person year in persons less than forty year old) [5]. The disease spectrum and clinical features in adults younger than 30 years of age has not been extensively described. Relative risk of Herpes Zoster is at least 15 times greater in patients with HIV than in patients without HIV [3] This study highlights the clinical profile of HZO in individuals with HIV-AIDS and correlates clinical manifestations with their immunocompromised status. Clinically many believe that the occurrence of HZO at younger age is associated with underlying HIV infection. Lack of cell mediated immunity is a significant factor in triggering Herpes Zoster Corneal complications occur in approximately 65% of cases with HZO [6].

Most patients presented with disseminated, more severe form of the disease less amenable to treatment. The main cause of moderate to severe visual loss at presentation in HIV patients was ulcerative keratitis and its further complications but it was not completely reversible with early course of aggressive antiviral therapy. Reduced corneal sensitivity was present in all HIV patients with associated long term morbidity. This hypoesthetic corneal surface often with impaired tear secretion predisposes cornea to secondary infection. However superimposed bacterial infection was found in this group in 20% patients despite diminution of corneal sensation in 100% of these subjects. 70% patients presented with post herpetic neuralgia.

CONCLUSION

Our study outlines the spectrum of HZO in HIV patients.. Compromised immune status in HIV patient increases the risk of virus reactivation even in young patients and patients present with disseminated, severe form of disease less amenable to treatment and progresses to vision threatening complications. Corneal complications occur in approximately 65% of cases with HZO. Most common corneal involvement occurs in the form of ulcerative keratitis. Corneal opacities developing due to scarring in these patients usually require penetrating keratoplasty. Early diagnosis and prompt treatment can halt progression of disease to severe vision threatening form.

REFERENCES

1. Wiafe B; HZO in HIV-AIDS. Community Eye Health, 2003; 16(47):35-6.
2. Pavan-Langston D; Clinical manifestations and therapy of herpes zoster ophthalmicus. Comp Ophthalm Update, 2002; 3: 217.
3. Buchbinder SP, Katz MH, Hessol NA, Liu JY, O'Malley PM, Underwood R, Holmberg SD; Herpes zoster and human immunodeficiency virus infection. Journal of Infectious Diseases, 1992; 166(5):1153-6.
4. Insinga RP, Itzler RF, Pellissier JM, Saddier P, Nikas AA; The Incidence of herpes zoster in a United States administrative database. J Gen Intern Med., 2005; 20: 748–53.
5. Opstelten W, Mauritz JW, de Wit NJ, van Wijck AJ, Stalman WA, van Essen GA; Herpes zoster and postherpetic neuralgia- Incidence and risk indicators using a general practice research database. Fam Pract., 2002; 19:471–75.
6. Pavan-Langston D; Clinical manifestations and therapy of herpes zoster ophthalmicus. Comp Ophthalm Update, 2002; 3:219.
7. Sheikh S, Ta CN; Evaluation and Management of HZO. Am Fam Physician, 2002; 66(9):1723-30.