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Herpes Simplex Keratitis and Visual Impairment-Case Series

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Abstract

Purpose: To record the natural history of herpes simplex keratitis and estimate visual impairment in eyes of patients diagnosed with herpes simplex keratitis

Materials: This was a retrospective, descriptive case study for five years of the eyes of patients with clinically diagnosed herpes simplex keratitis. These patients had presented to eye OPD. The medical records were reviewed by the authors. Visual acuity at presentation and clinical details on examination were recorded and, diagnosis of the stage of disease given in the case record was noted. Statistical analysis was done using chi-square test.

Results: Out Of a total of 50 patients, there were 30 males and 20 females; 32 eyes presented with stromal lesions, 11 eyes with epithelial lesions, 8eyes with epithelial and stromal lesions, and 1 eyes with endothelium.

Conclusion: Most patients had mild disease. The majority of the patients attained the final visual acuity of 6/12 or better in the affected eye. Thus, there was only a temporary visual morbidity with fairly good functional visual outcome in the majority of the patients.

Keywords: Herpes Simplex, Keratitis, Visual Impairment.

INTRODUCTION

HSV is a double--stranded DNA virus that causes disease after direct contact with skin or mucous membranes by a virus--laden secretions from an infected host.[1] Once in the tissue, the virus spreads from the site of the initial infection to the neuronal cell bodies, where it can lie dormant for years until reactivation occurs.[1] It has been found that almost 100% percent of people in the United States over the age of 60 harbor HSV at autopsy.[1] The two most common forms of HSV are HSV--1 and HSV--2. HSV--1 is generally associated with oral--labial infections and HSV--2 with genital infections, though crossover does occur.[1] For example, HSV--2 can infect the eye through ocular contact with genital secretions or in neonates as they pass through the birth canal. HSV keratitis is the most common corneal infection in the United States.[2] It is the number one cause of corneal and infectious blindness and a leading indication for corneal transplantation.[2] The true incidence of HSV keratitis has been difficult to determine, but there are estimated to be 500,000 people in the U.S. with HSV--related ocular disease, with approximately 20,000 new cases and 28,000 reactivations each year.[3] Primary ocular HSV infections are more common in children and are often associated with a viral prodrome and characteristic periocular herpetic blisters.[3] Most ocular HSV infections, however, are secondary infections that occur after virus from a primary oral--labial infection becomes reactivated within the trigeminal ganglion and spreads to the eye by means of the ophthalmic (V1) branch of the fifth cranial nerve.[3] Classic risk factors for reactivation are thought to include stress, illness, menses, immunosuppression, sun exposure, fever, and trauma, though these were not borne out by the Herpetic Eye Disease Study.[4] The most significant risk factor for HSV keratitis is a past history of

ocular HSV.[1] The recurrence rate for HSV may be as high as 25% in the first year and 33% by the end of the second year.[4]

RESULTS

The patients' ages ranged from 8 to 80 years, with a mean of 29.9 ± 16.69 years for females and 32.09 ± 15.79 years for males.

2.1: 1. (Table 1). Thus, the majority of the patients were young, adult males. The disease was bilateral in 3 patients. 39 patients had no obvious previous attack of the disease, whereas 11 (12.26%) had a history of previous attacks of the disease. The common symptoms were a pain, redness, defective vision, photophobia, irritation, and watering: Out Of a total of 50 patients, there were 30 males and 20 females; 32 eyes presented with stromal lesions, 11 eyes with epithelial lesions, 8 eyes with epithelial and stromal lesions, and 1 eye with endothelium.

CONCLUSION

There are no good criteria to judge the overall impact of this condition on the individual or on society. The condition is recurrent, and each case is unique; the patient may or may not be disabled during a recurrence and may or may not be permanently hampered by the residual corneal scar or any other structural abnormality. From this series, it could look like most patients have mild disease. Although data exist on the ocular HSV in the Western population regarding morbidity, social impact, and economic burden, no such data exist in the Indian population. [5],[6]. Though prospective longitudinal studies are needed, the data from this study can nevertheless provide a basis for establishing the incidence and visual impairment owing to herpes simplex keratitis.

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