

Herpes Simplex Keratitis: Clinical Profile And Treatment Outcome

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Abstract :

AIM: To study clinical presentations of herpes simplex(HSV) keratitis and assess results of specific therapy. **MATERIALS AND METHODS:** Prospective study of 54 patients with clinical features suggestive of HSV keratitis was done over 6 months. HSV keratitis was diagnosed on the basis of clinical features and diminution of corneal sensation. Specific treatment was given and followed up at 7,15 and 30 days. **RESULTS:** Out of 54 cases,50 (93%) were unilateral. Common symptoms were redness, watering, discharge and irritation, whereas pain, photophobia, blurred vision and lid vesicles and ulcers were less frequent. Major signs were papillae and follicles in palpebral conjunctiva and fine and coarse epithelial punctate keratitis. Dendritic ulcers were seen in 6(11%) and disciform keratitis in 8(15%) cases. After specific treatment, maximal recovery was observed at 30 days. **CONCLUSION:** Most common presentation of HSV keratitis is superficial punctate keratitis. Specific treatment is effective in complete recovery.

Keywords : Herpes simplex virus, keratitis, corneal sensation, dendritic ulcer, specific treatment

Introduction :

Herpes Simplex Virus ocular infection is a leading cause of corneal blindness worldwide.¹ Herpes simplex keratitis (HSK) results from an infection with the Herpes simplex virus type 1 [HSV-1]. The virus produces a variety of clinical manifestations due to its ability to infect a host and establish an indefinite and latent presence in the neuronal ganglia.²

HSV ocular infection may present in various clinical forms. Various manifestations of this disease range from benign blepharitis, conjunctivitis, and epithelial keratitis to vision-threatening stromal disease and uveitis.³ Primary ocular infection may present as an acute follicular conjunctivitis or keratoconjunctivitis with or without characteristic lid or corneal lesions.⁴

This study aims to document the various clinical presentations of herpetic keratitis and also to assess the result of specific therapy and follow up.

MATERIALS AND METHODS :

A prospective study of 54 patients with clinical features suggestive of HSV keratitis was undertaken over a period of 6 months from 1st December 2015 to 31st May 2016 at the department of Ophthalmology, VSS Institute of Medical Sciences and research, Burla.

A detailed history was taken including the presenting complaints, the eye affected, duration of symptoms, any previous ocular disease, any history of trauma or any other systemic illness. Then a detailed general and systemic examination was carried out for lymphadenopathy, oral lesions.

The eyes were then examined first under diffuse light and then under slit lamp. The eyes were examined for the presence of periocular involvement, laterality, conjunctival and circumcorneal congestion, type of corneal involvement whether epithelial, stromal or endothelial, any uveitis and for any complications like glaucoma. Best corrected visual acuity was noted in all cases.

HSV keratitis was diagnosed on the basis of clinical features and diminution of corneal sensation.

Specific treatment was given to all cases and patients were followed up at 7, 15 and 30 days from the day of presentation.

RESULTS :

Males outnumbered females by 14%. Male to female ratio was 1.25 : 1.

The most common age group involved was 21 - 30 years with 44% of the patients followed by 31 - 40 years (18%).

93% (50) cases were unilateral and only 7% (4) cases were bilateral.

Redness (100%), watering (100%), discharge (90.7%) and irritation (88.8%) were found to be the most common symptoms in which moderate disease was found to be more frequent (52.7%). Lid vesicles and/or ulcers (13%), pain (3.7%) and blurring of vision (42%) were found infrequently (Fig.2).

Hyperemia (100%), papillae (81.5%) and follicles (92.6%) were found to be the most common signs of the disease with moderate disease being the most frequent (49.4%). Fine and coarse epithelial punctate keratitis (Fig.3) was the most commonly found lesion (44.4%) followed by sub-epithelial punctate keratitis (26%). Dendritic ulcer (Fig.4) and disciform keratitis were noted in 6 (11%) and 8 (14.8%) cases respectively (Fig. 5).

The symptoms were more prevalent in the first two weeks after initiation of treatment and gradually reduced thereafter. Among the signs, circumcorneal congestion and follicles reduced maximally in the first two weeks, and complete recovery was noted in one month. Papillae persisted in 3 patients at 30 days follow up. Recovery for superficial punctate keratitis and dendritic ulcer was noted in 60% cases by 4th week whereas disciform keratitis persisted in 25% cases at 30 days follow up (Fig. 6).

CONCLUSION :

Herpes simplex keratitis was mainly unilateral [93 %].

Males were more affected than females in our study.

Initial presentation of herpes simplex keratitis in our study was mainly in the age group 21 to 30 years [44%].

Of the presenting symptoms common symptoms were redness (100%), watering (100%), discharge (90.7%) and irritation (88.8%).

Type of keratitis was mainly epithelial and sub epithelial keratitis observed in 37 [68.5%] patients, 6 [11%] had dendritic ulcer and 8 [14.8%] had disciform keratitis.

Complete recovery was observed at 30 days follow up.

Since the diagnosis of herpes simplex keratitis is mainly based on proper history and clinical improvement, a careful evaluation with a high index of suspicion and appropriate management could restrict corneal damage and reduce incidence of severe visual loss.

References :

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Fig.1: Diminution of corneal sensation

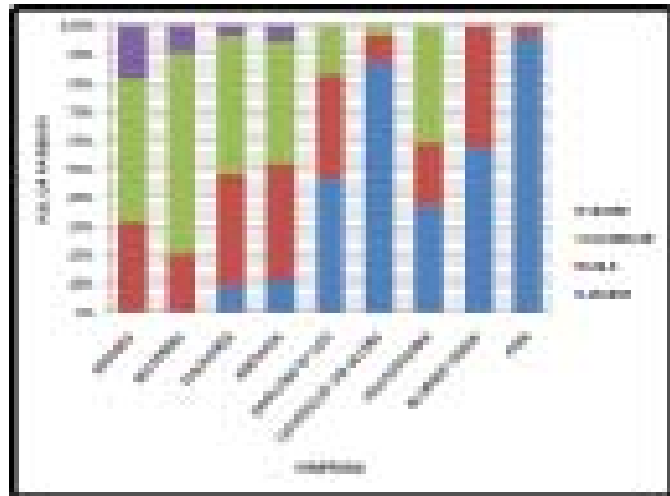


Fig. 2 : Prevalence and severity of symptoms

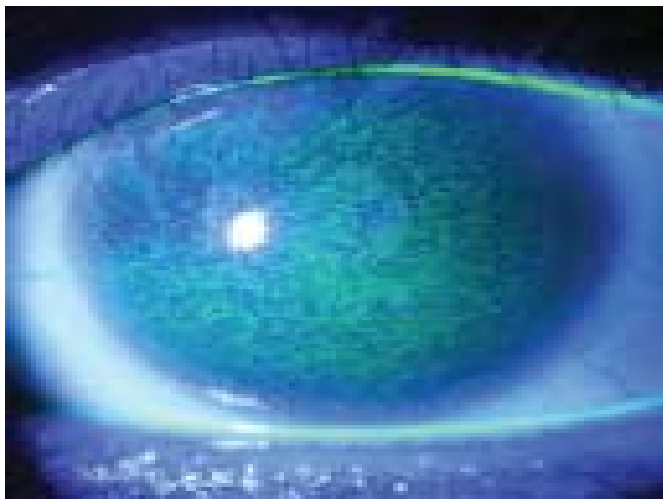


Fig.3: Superficial punctate keratitis

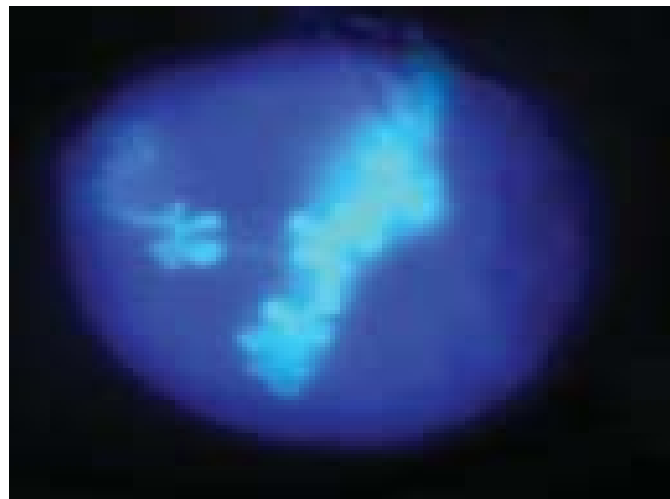


Fig. 4 : Dendritic ulcer

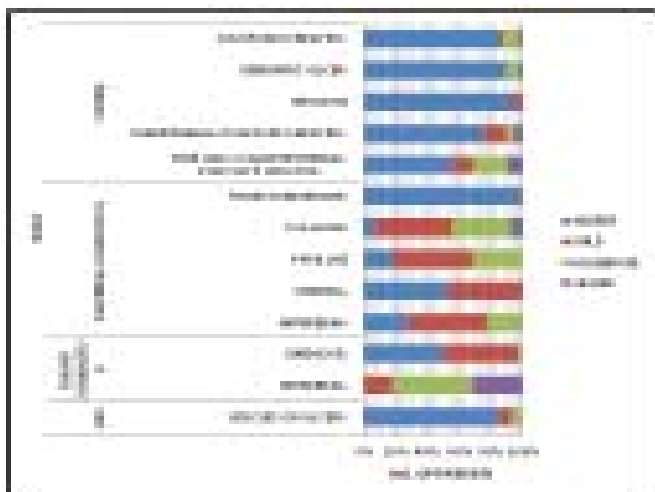


Fig. 5 : Prevalence and severity of signs

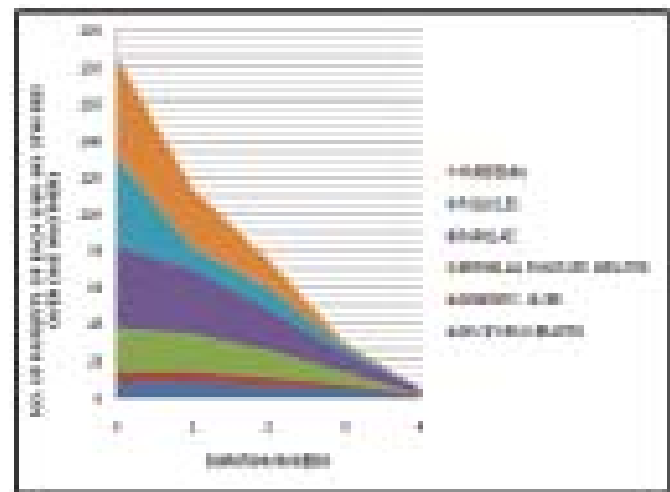


Fig. 6 : Prevalence and duration of common signs after specific treatment