

CASE REPORT

Conjunctival Geographic Ulcer and Blepharitis in Primary Ocular Herpes

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Abstract

Conjunctival geographic ulcer is a rare manifestation of ocular herpes simplex. Geographic ulcers are formed when sloughing of the epithelium occurs in the areas between the dendrite and a broad area of epithelial involvement with irregular angulated borders is formed. We hereby report a case of Primary ocular herpes with blepharitis and geographic ulceration of the conjunctiva in a 8 year old boy with no corneal lesion. To the best of our knowledge only 4 cases of conjunctival herpetic dendritic ulcerations and a single case of herpetic geographical ulcer has been reported in literature till date.

Key Words

Conjunctival Geographic Ulcer, Blepharitis, Primary Ocular Herpes

Introduction

HSV infection is the most common cause of blindness in developed countries. Primary infection with HSV-1 is silent in the majority of cases, with as few as 6% of cases being symptomatic. The lesions develop 10-12 days after exposure to the virus. Primary ocular herpes usually presents as blepharitis, blepharoconjunctivitis or keratitis. Conjunctival ulceration in the form of dendrites or geographic ulcers in ocular herpes is however very rare (1).

Case report

8 year old male child presented with complaints of pain, swelling and eruptions on right upper and lower lids for the last 7 days. No other significant past/family/systemic history was present. No rhinitis/pharyngitis/fever was present. No preauricular lymphadenopathy was present. Vision was 6/6 in both eyes. Vesicular eruptions were present on right side of face near the periorbital region, and right upper and lower lids showed swelling and vesicular eruption. Corneal sensations were diminished in the right eye. Slit lamp examination of the right eye with fluorescein staining showed area of fluorescein staining in the lower bulbar conjunctiva resembling a geographic ulcer with irregular, angulated margins. Rest of anterior segment and posterior segment examination were unremarkable.



Fig 1. Showing Eruptions in the Right Periorbital Region



Fig 2. Showing Herpetic Blepharitis

Discussion

In a study (1) conducted in Rochester over a period from 1950 to 1982 it was observed that Primary ocular herpes involved lid or conjunctiva in 54%, superficial

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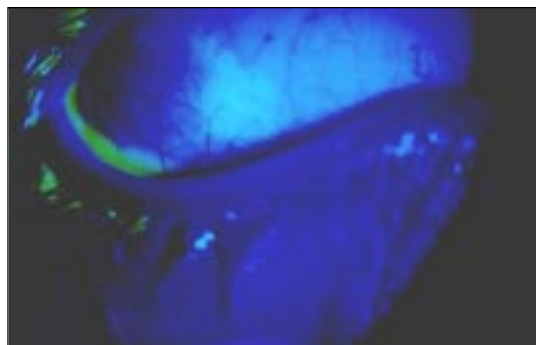


Fig 3. Showing Area of Fluorescein Staining in the Lower Bulbar Conjunctiva

cornea in 63%, deeper cornea in 6%, and uveitis in 4% cases. Darouger *et al* (2) in a study conducted in 108 patients of primary ocular herpes found 14 (12.9%) patients to be in the age group 5-10 years of age. Herpes simplex virus (HSV) infections involving the lid may present in one of two forms (3). The classic appearance involves an accumulation of small vesicles or pustules along the lid margin and/or periocular skin. Itching may be associated. These lesions have an inflamed, erythematous base. Within the first week of infection, the vesicles may ulcerate or harden into crusts. Once the crusts fall off the lesion is no longer infectious. "Erosive-ulcerative" form of HSV blepharitis has also been described. This presentation is characterized by erosions of the lid at the gray line or ulcers along the lid margin, or a combination of both. Spread of the virus from eyelids and conjunctiva to cornea is uncommon in children even without antiviral prophylaxis.

A study conducted in Japan even suggested that a biological difference may exist between HSV strains causing keratitis and conjunctivitis (4). Conjunctival geographic ulcer is a rare manifestation of ocular herpes simplex. Geographic ulcers are formed when sloughing of the epithelium occurs in the areas between the dendrite and broad area of epithelial involvement with irregular angulated borders is formed. To the best of our knowledge only 4 cases of conjunctival dendritic ulcerations (5,6) and a single case of herpetic geographical ulcer has been reported in literature till date (7). Only one of the reported cases of conjunctival dendrite had primary ocular herpes (8). Reason for herpetic lesions having a dendritiform and on progression of the disease, a geographic pattern is not known. Earlier it was postulated that the shape was due to herpes involving the corneal nerves. Another school of thought was that it was due to "polygonal cells" in epithelium. The demonstration of dendrites on the conjunctiva refutes both these theories. Our patient was started on eye

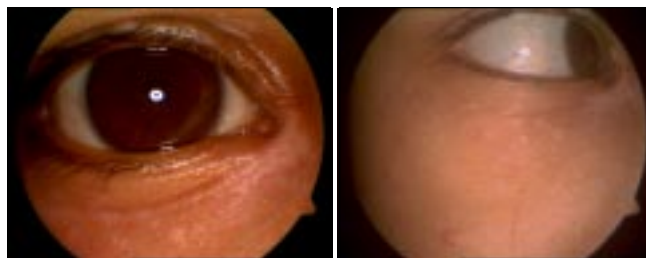


Fig 4&5. Showing Healed Blepharitis & Periocular Skin Lesions after 12 days of Therapy

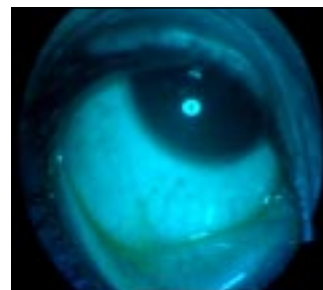


Fig 6. Showing Healed Conjunctival Geographic Ulcer After 12 Days of Therapy

ointment Acyclovir 5 times/day local application on eye and skin and Tab Acyclovir 200 mg 5 times/day. He was reviewed after 3 days and then after 12 days. Patient recovered fully after 12 days and medications were stopped.

Conclusion

Conjunctival geographic ulcer is rare form of ocular herpes simplex. Its timely diagnosis and treatment can result favourable outcome.

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