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Editorial

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Infectious Eye Diseases: Etiology, Clinical Manifestations and Management

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Introduction

Infectious eye diseases are a significant cause of ocular morbidity worldwide and can affect any part of the eye, from the surface to the intraocular structures. They are caused by a variety of pathogens, including bacteria, viruses, fungi, and parasites. Early recognition and appropriate management are crucial, as untreated infections can lead to vision loss, ocular scarring, or systemic complications. Understanding the pathophysiology, clinical features, and treatment strategies of infectious eye diseases is essential for preserving vision and ensuring favorable outcomes [1,2].

Discussion

Infectious eye diseases can be classified based on the site of involvement. **Conjunctivitis**, commonly known as "pink eye," is the most frequent ocular infection. Bacterial conjunctivitis presents with purulent discharge, redness, and irritation, while viral conjunctivitis often accompanies systemic viral infections and manifests with watery discharge and follicular reaction. Allergic conjunctivitis, although non-infectious, can mimic infection and requires careful differentiation [3,4].

Keratitis, or corneal infection, is a major cause of visual impairment. Bacterial keratitis often follows trauma or contact lens use, presenting with pain, photophobia, and corneal ulceration. Viral keratitis, particularly from herpes simplex virus, can cause recurrent corneal ulcers and scarring. Fungal keratitis, more common in tropical regions, typically results from vegetative trauma and may lead to severe corneal damage if not treated promptly. Acanthamoeba keratitis, associated with contact lens hygiene, is rare but sight-threatening.

Uveitis of infectious origin involves the iris, ciliary body, or choroid and can be caused by pathogens such as toxoplasma, cytomegalovirus, or tuberculosis. Patients may present with pain, redness, floaters, and decreased vision. Posterior segment infections like retinitis and choroiditis are serious complications that can lead to permanent visual loss [5].

Orbital infections, including orbital cellulitis, often result from sinus infections or trauma and may threaten vision and life due to potential intracranial spread. Early diagnosis with imaging and prompt systemic antibiotics are critical.

Diagnosis of infectious eye diseases relies on clinical examination, microbiological studies, and imaging when necessary. Management depends on the pathogen and site of infection and includes topical or systemic antibiotics, antivirals, antifungals, or anti-parasitic agents. Supportive care, such as lubrication, pain management, and control of intraocular pressure, may also be required.

Conclusion

Infectious eye diseases encompass a wide spectrum of ocular infections that can significantly impair vision if untreated. Accurate diagnosis, timely initiation of appropriate antimicrobial therapy, and supportive care are essential for successful outcomes. Advances in microbiology, molecular diagnostics, and targeted therapy continue to enhance the management and prognosis of infectious eye diseases.

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