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Keratitis

Keratitis is an inflammation of the cornea, the transparent membrane that covers the coloured part of the eye (iris) and pupil of the eye.

There are many types and causes of keratitis, which can occur in both children and adults. Germs can't usually invade a healthy cornea, but certain conditions can allow an infection to occur, such as a scratch or a very dry eye can decrease the cornea's ability to protect itself. Illnesses or other factors that reduces the body's ability to overcome infection, including cold sores; genital herpes; crowded, dirty living conditions; poor hygiene poor nutrition (especially a deficiency of vitamin A, which is essential for normal vision).

Herpes simplex keratitis is a major cause of adult eye disease, and may lead to chronic inflammation of the cornea, development of tiny blood vessels in the eye, scarring, blindness, or glaucoma.

The infection generally begins with inflammation of the membrane lining the eyelid and the portion of the eyeball that comes into contact with it. It usually occurs in one eye. Subsequent infections are characterized by a pattern of lesions that resemble the veins of a leaf. These infections, called dendritic keratitis, can aid in the diagnosis. Recurrences may be brought on by stress, fatigue, or ultraviolet light (UV) exposure.

It is very important not to use topical corticosteroids with herpes simplex keratitis as it can make the condition much worse, possibly leading to blindness.

People who have bacterial keratitis wake up with their eyelids stuck together. There can be pain, sensitivity to light, redness, tearing, and a decrease in vision. Bacterial keratitis makes the cornea cloudy and may cause abscesses. This condition can be caused by wearing soft contact lenses overnight. One study found

that overnight wear can increase risk by 10-15 times more than daily-wear contact lenses. Improper lens care is also a factor. Contaminated makeup can also contain bacteria.

Fungal keratitis, which often develops slowly, usually occurs if the cornea is injured in a farm-like setting or in a place where plant material is present. This condition usually affects people with weakened immune systems, often causes infection within the eyeball, and may cause abscesses.

Peripheral ulcerative keratitis is often associated with active or chronic: Rheumatoid arthritis, Wegener's granulomatosis, a rare condition characterized by kidney disease and development of nodules in the respiratory tract.

Superficial punctate keratitis is often associated with the type of viruses that cause the common cold; it's characterized by the destruction of pin point areas in the outer layer of the cornea. One or both eyes may be affected.

Acanthamoeba keratitis is a very painful, pus-producing condition commonly found in people who wear soft or rigid contact lenses. The bacteria can be found in tap water, soil, and swimming pools.

Photokeratitis (snowblindness) is caused by too much exposure to UV light such as in sunlight, sun-tanning lamps, or a welding arc. The condition is very painful and may occur several hours after exposure, and may last one to two days.

Interstitial keratitis is a chronic inflammation of tissue deep within the cornea that affects both eyes and usually occurs as a complication of congenital or acquired syphilis. It also may occur in people with tuberculosis, leprosy, or other fungal infections.

Symptoms of keratitis include, but are not limited to:

- Tearing
- Pain
- Sensitivity to light
- Inflammation of the eyelid
- Decrease in vision
- Redness.

A doctor will test the patient's vision and then examine the eyes with a slit-lamp. The cornea can be examined with fluorescein, a yellow dye that will highlight defects in the cornea. Deeper layers of the cornea can also be examined with the slit lamp. Samples of infectious matter removed from the eye will be sent for laboratory analysis.

Antibiotics, antifungals, and antiviral medication will be used to treat the appropriate organism. Broad spectrum antibiotics sterile, cotton-tipped applicator may be used to gently remove infected tissue and allow the eye to healmore rapidly.

Antifungal, antibiotic, or antiviral eyedrops or ointments are usually prescribed to cure keratitis, but they should be used only by patients under a doctor's care. Inappropriate prescriptions or over-the-counter preparations can make symptoms more severe and cause tissue deterioration. The patient will probably return every day to the eye doctor to check on the progress.

Although early detection and treatment can cure most forms of keratitis, the infection can cause glaucoma, permanent scarring, ulceration of the cornea, or blindness.

Children and adults who wear contact lenses should always use sterile lens-cleaning and disinfecting solutions. Tap water is not sterile and should not be used to clean contact lenses. Contact lenses should be removed if the eyes become red or irritated.

Eating a well-balanced **diet** and wearing protective glasses when working or playing in potentially dangerous situations can reduce anyone's risk of developing keratitis. Protective goggles can even be worn mowing the lawn so that if twigs are tossed up they can't hurt the eye. Goggles or sunglasses with UV coatings can help protect against damage from UV light.

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