

About half of all sarcoidosis patients experience eye problems, ranging from dry eyes to inflammation.

Testing for eye inflammation

Ophthalmological examination: An ophthalmologist will examine the front part of the eye with a microscope and an intense light. To view the rear part of the eye, the ophthalmologist will use dilating drops to make the pupil big enough to see the back of the eye.

Schirmer test: Dry eyes are common. The lacrimal gland produces tears - important for keeping the eye moist and protecting from infection. The Schirmer test uses blotting paper to measure the moisture (tears) produced by the lacrimal gland in the lower eyelid.

Inflammation of the lacrimal gland

This type of eye inflammation is rare.

Symptoms:

- dry eyes
- itchy, burning eyes
- irritation while reading and using screens
- overproduction of tears due to cold, draught and wind

Treatment: Administration of artificial tears or ointment.

Inflammation of the choroid (Uveitis)

This is the most common eye problem in sarcoidosis. The inflammation can occur in the iris at the front of the eye (anterior uveitis or iris inflammation), but also at the back (posterior uveitis), or even in both simultaneously (panuveitis). In posterior uveitis and panuveitis there is often inflammation also in the vitreous and on the retina. Uveitis can occur in one eye or both eyes simultaneously. It can occur suddenly or gradually.

Symptoms:

- the eye is suddenly red and sometimes painful (acute onset)
- blurred vision
- black spots or strings in the image
- sensitivity to light
- opacities with the movement of the eye

Treating anterior uveitis:

This usually needs treatment with eye drops. You may be prescribed two kinds of eye drops: corticosteroids inhibit the inflammation and mydriatic substances (to dilate the pupil) prevent adhesion of the iris to the lens. If the inflammation lasts a long time or recurs, corticosteroid treatment in tablet form can be effective.

Treating posterior uveitis:

Posterior uveitis can persist or recur. The treatment may consist of corticosteroid injections next to the eye, corticosteroid tablets, sometimes in combination with methotrexate.

Inflammation of the conjunctiva

Small bumps (follicles) form in the white of the eye, or on the inner side of the eyelids. This type of eye inflammation is rare.

Symptoms:

- disfigurement of the eye
- pain, feeling of pressure around the eye
- redness (severe inflammation)

Treatment: Anti-inflammatory eye drops.

Deterioration of the optic nerve

Deterioration of the optic nerve rarely occurs and is almost always related to an inflammatory disease of the nervous system. Consultation with a neuro-ophthalmologist is advised.

Symptoms:

- blurred/segmented vision (e.g. lower/upper field blinded)
- reduced colour vision
- pain around the eye or eye socket

Treatment: Corticosteroids in tablet form or by infusion.

Neurosarcoidosis and the eye

The proper functioning of the eye can be affected by neurosarcoidosis. This is sometimes confused with ocular sarcoidosis.

Complications of Uveitis:
In rare cases of sarcoidosis there may be additional complications surrounding the eye.

Macular oedema

Prolonged uveitis causes retinal swelling which can kill the light-sensitive cells. This can cause permanent ocular damage in sarcoidosis uveitis patients. Treatment may include corticosteroid injections, tablets, or another immunotherapy such as biologics.

Cataracts and glaucoma

Due to the eye inflammation, and long-term treatment with corticosteroids, the lens may become opaque (cataract) and the intraocular pressure can increase (glaucoma). Glaucoma is treated with eye drops and may require surgery in extreme cases. The cataract lens can be replaced by an artificial lens.

Inflamed blood vessels

In posterior uveitis and panuveitis, blood vessels can become inflamed, or granulomas (swellings) may occur in the deeper choroid. In severe cases small blood vessels on the retina may leak or close, causing bleeding and swelling. This can lead to oxygen deficiency and create new, weak blood vessels. These are easily susceptible to bleeding. Retinal laser treatment can treat new blood vessels.

Advice

Eye problems are common in sarcoidosis. It is important to detect eye diseases at an early stage. Proper monitoring and timely treatment can often prevent permanent damage. Sarcoidosis patients should contact an eye doctor or good optometrist at least once per year to check for any complications.