INSIGHT EYE SURGERY

Central serous chorioretinopathy (CSCR)

What is CSCR?

Central serous chorioretinopathy (CSCR) is a condition that affects the retina – the light sensitive tissue that lines the back of the eye.

It is a collection of fluid under the retina. This is caused by a disturbance in the pumping action of special cells called RPE cells (retinal pigment epithelial cells) and/or abnormalities in the vascular (blood vessel) layer, known as choroid.

The RPE cell layer and blood vessel layer (choroid) line the outer surface of retina and both layers function to keep the retina healthy. This dysfunction results in fluid leakage under the retina in a bubble-like swelling called central serous chorioretinopathy (CSCR).

What are the symptoms of CSCR?

CSCR usually affects those between 30 to 50 years of age. Males are more likely to be affected then females. Main symptoms include:

- painless blurriness of central vision.
- distortion or a change in size of an object.
- straight objects or lines seeming curved (distorted).
- difficulty in reading small prints with the affected eye.
- some patients notice that they need to change reading glasses more often.

In most cases, the symptoms only last for a few months; however it may last longer in a minority of patients, potentially leading to a long-term worsening of vision.

What causes CSCR?

The exact factors that cause the development of CSCR related fluid have not yet been determined. However, we know of various risk factors:

1. *Steroids*

Steroids are a known risk factor for the development of CSCR. These include steroids in different forms such as inhalers for asthma, nasal spray for hay fever, steroid cream for eczema and steroid tablets such as prednisolone.

Rarely, in a condition (known as Cushing syndrome), an over production of the body's natural steroid hormone could lead to the development of CSCR.

2. *Stress*

A major stressful event, either work related or personal, is believed to trigger the development of CSCR in some patients.

3. *Psychological make-up*

Research has shown that certain personality types (particularly those who are hard-driven and competitive), are more at risk of developing this condition.

4. *Genetic risk*

There are ongoing studies suggesting some patients may have changes in certain genes that can trigger CSCR when exposed to certain environmental factors.

How is CSCR diagnosed?

Generally, the diagnosis is made by taking your detailed history which includes medical and drug history, clinical examination of eyes and imaging tests.

Central serous chorioretinopathy (CSCR) *continued*

Types of imaging tests include:

1 *Optical coherence tomography (OCT) is a scan of the retina. It is a non-invasive camera-based imaging test which uses light waves to take cross-section pictures of your retina. It is used to identify the fluid under the retina, along with detailed structural changes secondary to CSCR.*

2 *OCTA (OCT angiography) can look at abnormal blood vessel growth (CNV) that can mimic CSCR in older patients, or complicate CSCR in any patient.*

What are the complications of CSCR?

A small percentage of patients develop a growth of abnormal blood vessels under the retina (called choroidal neovascular membrane-CNV), which leaks fluid in the retina. This membrane (CNV) can be spotted with OCT-angiography and can be treated with anti-VEGF injections in the eye. Some patients with long-term CSCR develop loss of function of special retinal cells called RPE cells (retinal pigment epithelial). This results in a permanent worsening of vision.

How is CSCR treated?

Observation:

In most cases (85%), the fluid in the retina settles on its own within one-six months and needs no specific treatment. Any known possible triggers such as corticosteroid use should be reviewed and stopped if this is medically appropriate. Any other medical conditions that can act as a trigger should also be treated.

However, in a small number of patients, the condition can last longer than four-six months. Some patients may experience frequent flare ups, leading to a gradual worsening of their vision. In these cases, treatment may need to be considered.

Active treatment:

There are various treatment options available that have some evidence to support that they work in managing CSCR but there is no “silver bullet”. Research is currently being carried out to discover new types of treatment. The treatments may reduce or resolve the fluid collection under the retina but cannot restore damaged cells in the retina. If there is a secondary CNV the most appropriate treatment for that is a course of intravitreal injections (injections into the eye) which cause the abnormal blood vessels to shrink and stop leaking in most patients.

Can changing glasses help manage CSCR?

Changing existing glasses or getting new glasses does not help manage CSCR, as your glasses prescription can be different depending on the amount of retinal fluid you have. Changing your glasses prescription would only help temporarily; therefore, it is advisable to wait until the retinal fluid has been completely resolved.

Contact Dr Adams at **Insight Eye Surgery** on **07 3154 1515** (Brisbane) or **07 5345 5011** (Noosa) if you have further questions.