

Giant Cell Arteritis (Temporal arteritis)

Your Care

Neuro-
ophthalmology

Information for patients

What is Giant Cell arteritis (GCA)?

Giant Cell Arteritis (GCA or temporal arteritis) is a **dangerous** condition caused by inflammation of the arteries that provide blood to the optic nerve.

The optic nerve is very important and carries the visual information from the eye to the brain. This nerve is made up of over 1 million small fibres which need oxygen and nutrients to function. Inflammation of the blood vessels changes the blood flow and leads to repeated damage to the nerve. The more nerve that is damaged, the greater the amount of vision that is lost.

What are the symptoms of GCA?

GCA often presents with a range of symptoms before loss of vision occurs. **Headaches** are common and are seen in over 80% of patients. Scalp tenderness, jaw or facial pain (especially when chewing or talking), fever, sweats, muscle aches, shoulder and hip stiffness and weight loss can all also occur. Loss of vision is typically sudden and severe but may follow shorter, temporary periods of visual loss.

The most severe complications include severe and **permanent loss of vision** in one or both eyes, and a risk of **stroke** or **heart attack** due to inflammation of other blood vessels.

What causes GCA?

The exact cause of GCA is unknown but is thought to be an autoimmune condition, where the immune system mistakenly attacks the walls of the blood vessels leading to inflammation.

Age is the biggest risk factor and usually only affects people over the age of 55. Women are three times more likely to be affected.

There is also an association with another inflammatory condition called polymyalgia rheumatica (inflammation of the joints and tissue around the joints).

Giant Cell Arteritis

Patient information

For further information:

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If you have any change in your vision, please contact your general practitioner immediately or present to an emergency department for review.

How is GCA diagnosed?

When suspected, the neuro-ophthalmologist will check your vision and arrange for a number of additional tests.

Visual tests include assessment of your acuity (the sharpness of your central vision or your ability to read lines on a chart), your visual field (your peripheral or side vision) and your pupil responses to light. Other tests can include photographs or measurements to check the thickness of the optic nerve fibres.

Blood tests for inflammation are important (specifically an 'ESR' and 'CRP'), but true diagnosis requires a **biopsy of the temporal artery**. This is a minor operation where a small section of the temporal artery (blood vessel) is removed from the side of the head under local anaesthesia. This is then examined under a microscope to look for signs of inflammation.

What is the treatment of GCA?

High doses of steroids are the most important treatment and should be started as soon as the diagnosis is suspected. Treatment may even be started before a biopsy is performed to reduce the risk of further damage or visual loss. Often, this requires 3 days of intravenous medication with a drip in a vein in your arm, followed by a long course of oral steroid tablets.

Steroid doses are usually reduced over time but it is not uncommon for patients to require a slow reduction over 12 – 24 months. Some might need to continue on lifelong low dosages as risk of relapse is high if the steroids are reduced too quickly. Side effects of high dose steroids are common and can include weight gain, diabetes, bone loss and high blood pressure so it is important that these are monitored by your GP.

What is the long-term outlook of GCA?

GCA can cause severe, permanent **visual loss** however this can be prevented by early treatment with steroids. When managed correctly, the risk of vision loss is small, however headache and other symptoms can reappear during the first few months of treatment. Close monitoring of symptoms is important while regular blood tests can be used to check for inflammation.

