



Information for adults undergoing a temporal artery biopsy

Ophthalmology Department

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Introduction

You have been given this leaflet as it has been suggested that you should undergo a temporal artery biopsy. This leaflet explains many of the important points, however, please discuss any questions you may have with your care team or surgeon.

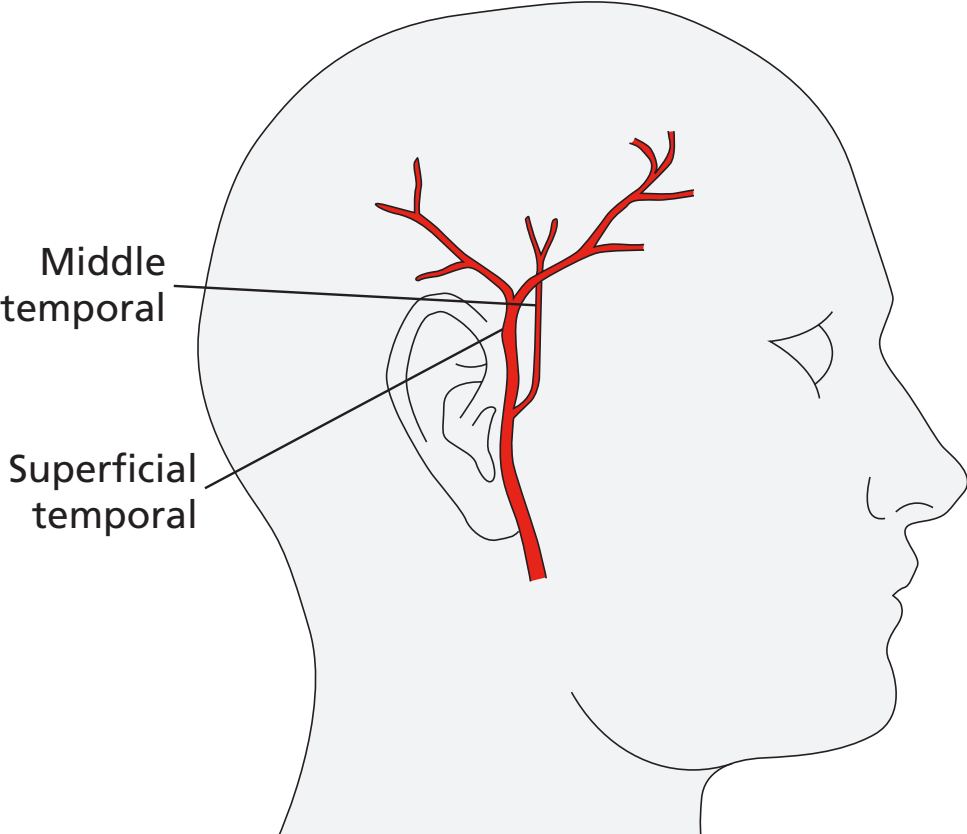
What is giant cell arteritis?

Giant cell arteritis (GCA) (sometimes called temporal arteritis) is a condition which causes inflammation in the wall of arterial blood vessels usually seen on the scalp. GCA usually affects people over the age of 50 years and is more common as people get older. GCA can cause sudden blindness in one or both eyes. Other rare complications include double vision and life-threatening aneurysms (swellings of the arteries) and stroke.

Making the diagnosis can be difficult for doctors. Blood tests can help, but not everyone has signs in the blood of raised inflammation. An ultrasound scan of the head and neck blood vessels can be useful. In some cases a temporal artery biopsy is recommended.

The superficial temporal artery is a blood vessel close to the skin than can be felt in both temples (located on either side of the forehead) and is pictured below.

Fig.1 Temporal artery position



What are the symptoms of giant cell arteritis?

GCA can cause different symptoms in different people. Early on people might feel tired and unwell; they might have a loss of appetite and can lose weight. Most people develop a new headache, which can make it uncomfortable to touch their hair and scalp. Some people find chewing food uncomfortable. A number of people have problems with their vision (loss of sight or double vision).

Medical staff may ask you about the following:

- Do you have a new type of headache or pain in your head?
- Is the skin around your hair/scalp sore when you touch it?
- Have you recently become tired, lost your appetite, or lost weight?
- Do you have a fever or night sweats?
- Do you have increasing pain when chewing or a painful tongue?
- Are you having any problems with your vision?

Many people developing GCA will have experienced symptoms of Polymyalgia rheumatica (PMR), which include pain, tenderness and stiffness around the shoulders, hips and back. PMR affects people in the same age group as GCA and is closely linked: About 1 in 20 people on treatment for PMR develop giant cell arteritis.

How is giant cell arteritis treated?

If GCA is suspected emergency treatment is started immediately with high-dose steroids (corticosteroids). It is necessary to start treatment quickly to prevent sight loss. If the diagnosis is confirmed then corticosteroids are typically brought down slowly over 12 - 18 months. Occasionally symptoms return and patients may need longer treatment and some may need other medication to allow the steroid dose to be reduced.

Steroids are an effective drug in this condition to reduce the inflammation but they have many serious side effects. These include weight gain, high blood pressure, stomach ulcers or gastritis, mood change, thinning of the skin and weakening of the bones leading to fractures, worsening of existing diabetes or development of new diabetes.

Why do I need a temporal artery biopsy?

A temporal artery biopsy may help your medical team decide whether you have giant cell arteritis. A temporal artery biopsy will help to confirm whether you need to take corticosteroids, or other drugs, long term. In some cases where the suspicion of GCA is high we may still treat you for this condition even if the biopsy is negative or inconclusive.

What is the benefit of a temporal artery biopsy?

The aim of the biopsy is to take a small sample of one of the temporal arteries (see Fig.1) which will be looked at with a microscope by a doctor trained in looking at these samples (a histopathologist). The histopathologist will be able to see whether the temporal artery sample shows signs of inflammation in keeping with giant cell arteritis and confirm the diagnosis. It is safe to take a sample of this artery as there is a number of blood vessels that supply this area of the scalp. This procedure is not a treatment.

What are the risks?

Side effects following a temporal artery biopsy are rare, but could include:

1. Infection in the wound requiring a course of antibiotics.
2. Scarring. The wound is often hidden in the hairline to reduce any obvious scar. Around the actual site the hair may not regrow.
3. Problems with the blood circulation to the skin and scalp can lead to an ulcer (non healing area).
4. The sample taken may not be the correct blood vessel. A small part of a vein or nerve may be sampled instead of the artery. This occurs in about 1 in 100 biopsies. If this happens your medical team may talk to you about the need to perform another biopsy from the same side or other side of your head.

5. Nerve damage. This could lead to numbness or weakness on the same side of the face as the artery being sampled. This may or may not recover over time.
6. Stroke is a rare complication of GCA. there has been one reported instance of stroke following this procedure in someone with confirmed GCA.

Before the surgery

Please let your eye doctor know of:

- Any allergies you may have.
- All medications you are taking, including:
 - Blood thinners (anticoagulants), aspirin, warfarin or other drugs that could affect blood clotting.
 - Herbs, eyedrops, over-the-counter medications and creams.
- Previous problems with anaesthetics, including local anaesthetics.

We **do not** require blood thinners or aspirin to be stopped prior to surgery. Often we will check your warfarin levels (international normalised ratio blood level also known as 'INR')) on the day of the surgery, and as long as you are in **your** normal range, we will be able to do the surgery.

Is there an alternative to temporal artery biopsy?

Yes, currently we are using ultrasound in many cases to look for signs of giant cell arteritis. However this test is waiting wider acceptance and in some cases may not be conclusive. A temporal artery biopsy is still the commonest way to diagnose giant cell arteritis.

The surgery

We perform most temporal artery biopsies under local anaesthetic. Local anaesthetic means you are awake. You won't be able to feel any pain after having a local anaesthetic, although you may still feel some pressure or movement. Please let your surgeon know if you do feel any pain during the procedure and she/he can give you more anaesthetic.

It normally only takes a few minutes to lose feeling in the area where a local anaesthetic is given. Full sensation should return a few hours later, when the medication has worn off.

If you are having a local anaesthetic only you may eat and drink normally prior to the surgery.

The biopsy typically takes between 45 minutes to 1 hour, and the following steps will take place:

1. Your surgeon will mark the area of interest by gently feeling it. Sometimes an ultrasound device is used to help.
2. In the majority of cases it will be necessary to remove/shave some hair in the area of the artery to

help see the artery and reduce the risk of infection. The hair will normally grow back and hide the surgical scar.

3. The skin will be cleaned and a drape put around the area, to keep the area clear for the biopsy. As the surgical light is very bright, you may be offered patches for your eyes.
4. Local anaesthetic will be used to numb the surgery area.
5. When the artery has been found, both ends of the vessel will be tied using some surgical thread to prevent bleeding, and the sample sent immediately to the lab for processing.
6. You will have stitches and a dressing applied. Your surgeon will advise you whether these will dissolve or whether you will need to come back to have them removed at a later date.
7. You will be given ointment to take home to use once the dressing is removed.

Advice

To do;

- Keep the pressure dressing on for as long as you are advised to do so.
- Use your ointment strictly as advised.
- Use boiled cooled water and cotton wool to clean any stickiness from the surgical site.
- Keep all your follow-up appointments.
- Contact the ophthalmology department if your vision suddenly gets worse, if there is increased pain or discharge around the temporal artery biopsy site or if you are worried.

Things to avoid;

- Avoid getting fluid or dirt into the operated area and always wash your hands before putting the ointment on.
- Avoid swimming for up to 2 weeks after surgery.
- Avoid picking or fiddling with the stitches.

When can I go back to work?

How soon you return to work will depend on your occupation. Please discuss this with your surgeon prior to the surgery.

When do I get my results?

The surgery team will be informed of the results within one week. They will share these with your medical team and yourself.

Summary

A temporal artery biopsy is a procedure which is performed to help your medical team decide whether you have giant cell arteritis (GCA). This is very important as GCA is a sight-threatening condition in some patients and can result in developing life-threatening complications. The treatment of GCA can have serious side effects and so your medical team need to be as certain as possible whether you have GCA in order to make a decision about your treatment.

A temporal artery biopsy is a relatively safe procedure, but as with any operation, it is important to understand the risks involved to make a fully informed decision.

Please write down any questions you may have in the space provided and bring this information leaflet with you.



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