Temporal Artery Biopsy

Blood vessels that carry blood from the heart to all parts of the body are called arteries. Arteries in your temples (the area on the side of the head, between the ears and eyes) are called temporal arteries. The lining of a temporal artery can swell up. The condition is called *temporal arteritis*. Another term is *giant cell arteritis*. It usually causes a headache or pain in the temples. But it can also cause fever. Your jaws can hurt when you chew. Or, you could have trouble seeing. These symptoms could be caused by something else. The way to be sure is to do a temporal artery *biopsy*. A small piece of the artery is removed. Then it is checked under a microscope.

BEFORE THE PROCEDURE

- A medical evaluation will be done. This may include:
  - A physical examination. Your caregiver will feel your temples. The temporal artery may feel hard and swollen. The caregiver may not be able to feel a pulse (blood moving through the artery when your heart beats).
  - Blood tests. One test will probably check how well the blood clots (forms a clump that prevents too much bleeding). Another test checks *erythrocyte sedimentation*. Your caregiver may call this a *sed rate* test. It measures how fast red blood cells drop to the bottom of a test tube. Cells that drop fast are a sign of inflammation in the body. Almost everyone with temporal arteritis has a high sed rate.
  - Talking with an *anesthesiologist*. This is the person who will be in charge of the anesthesia (medication) during the procedure. Local anesthesia is usually used for a temporal artery biopsy. The area would be numb (no feeling). You would be drowsy but awake during the procedure.
- The person who is having the biopsy needs to give what is called *informed consent*. This requires signing a legal paper that gives permission for the surgery. To give informed consent:
  - You must understand how the procedure is done and why.
  - You must be told all the risks and benefits of the procedure.
  - You must sign the consent. Sometimes a legal guardian can do this.
  - Signing should be witnessed by a healthcare professional.
- Arrive about an hour before the procedure, or whenever your caregiver recommends. This will give you time to check in and fill out any needed paperwork.
- This is almost always an outpatient procedure. That means you can go home the same day. Make plans to have someone drive you home.

LET YOUR CAREGIVER KNOW ABOUT:

- Any allergies.
- All medications you are taking, including:
  - Herbs, eyedrops, over-the-counter medications and creams.
  - Blood thinners (*anticoagulants*), aspirin or other drugs that could affect blood clotting.
- Use of steroids (by mouth or as creams).
- Previous problems with anesthetics, including local anesthetics.
- Possibility of pregnancy, if this applies.
- Any history of blood clots.
- Any history of bleeding or other blood problems.
- Any surgeries.
- Smoking history.
- Other health problems.

THE PROCEDURE

- Preparation:
  - Small monitors will be put on your body. They are used to check your heart, blood pressure and oxygen

level.
    - You will be given an IV. A needle will be inserted in your arm. Medication will be able to flow directly into your body through this needle.
    - The area for the biopsy will be cleaned with a special solution to kill germs.
    - You will be given a local anesthetic. Sometimes, a cream is rubbed on the area first. This makes the skin numb. Then, the anesthetic is *injected* (shot) into the skin. This is often done in several spots.
    - You also may be given a sedative. This drug will help you relax. You will probably feel very drowsy.
    - A pencil-like instrument (called a *Doppler*) may be used to find the artery. It uses sound waves to do this. Marks will be made on the skin. They will trace the path of the artery in your temple.
- The procedure. It usually takes about 30 minutes.
    - When the area is numb, an *incision* (cut) will be made over the temporal artery. The incision may be 2 to 3 inches long.
    - Two clamps are put on the artery, about 2 inches apart. Then, a small piece of the artery between the clamps is cut and removed.
    - The tissue under the skin is closed with stitches. These will disappear in time. The skin then is closed with small stitches.
    - A small dressing (medicine and a bandage) may be put on the incision.
    - The artery piece that was taken out will be checked under a microscope. This will show if temporal arteritis is present.

AFTER THE PROCEDURE

- If you were given a sedative, you will stay in a recovery area until it has worn off. Your blood pressure and pulse will be checked. When everything is back to normal, you will be able to go home.
- Some pain is normal. It is usually not severe. You may be given pain medicine while in the recovery area. You also may be given a prescription for pain medicine to take at home. Before going home, ask if it is OK to take any over-the-counter painkillers.
- Be sure to ask how to care for the incision. Find out if you can get the incision wet. Find out when the dressing should be taken off.
- Make an appointment to come back to have the stitches taken out.
- Do not drive for at least 24 hours after the procedure. The sedative will be out of your system by then.

RISKS AND COMPLICATIONS

Problems are rare with a temporal artery biopsy. However, every procedure has risks. For this type of biopsy, they include:

- Bleeding that does not stop.
- *Hematoma*. This is a lump caused by bleeding under the skin.
- Pain that continues, even after taking pain medicine.
- Infection.
- Nerve damage in the temples. This could cause numbness. Or muscles in the face could become weak.
- Scarring. On the scalp, hair may not grow around the scar.

PROGNOSIS

This procedure is not a treatment. It will not cure temporal arteritis. The biopsy is done to help your caregiver decide if you have the condition. If you do, treatment can begin. Treatment for temporal arteritis is almost always successful.

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