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Cranial mononeuropathy VI

Cranial mononeuropathy VI is a nerve disorder. It affects the function of the sixth cranial (skull) nerve. As a result, the person may have double vision.

Causes

Cranial mononeuropathy VI is damage to the sixth cranial nerve. This nerve is also called the abducens nerve. It helps you move your eye sideways toward your temple.

Disorders of this nerve can occur with:

- Brain aneurysms
- Nerve damage from diabetes (diabetic neuropathy)
- Gradenigo syndrome (which also causes discharge from the ear and eye pain)
- Tolosa-Hunt syndrome (inflammation of the area behind the eye)
- Increased or decreased pressure in the skull
- Infections (such as meningitis or sinusitis)
- Multiple sclerosis (MS), a disease that affects the brain and spinal cord
- Pregnancy
- Stroke
- Trauma (caused by head injury or accidentally during surgery)
- Tumors around or behind the eye

While rare, it can also be present at birth (congenital).

The exact cause of vaccination-related cranial nerve palsy in children is not known.

Because there are common nerve pathways through the skull, the same disorder that damages the sixth cranial nerve may affect other cranial nerves (such as the third or fourth cranial nerve).

Symptoms

When the sixth cranial nerve doesn't work properly, you can't turn your eye outward toward your ear. You can still move your eye up, down, and toward the nose, unless other nerves are affected.

Symptoms may include:

- Double vision when looking to one side
- Headaches
- Pain around the eye

Exams and Tests

Tests often show that one eye has trouble looking to the side while the other eye moves normally. An exam shows the eyes do not line up either at rest or when looking in the direction of the weak eye.

Your health care provider will do a complete exam to determine the possible effect on other parts of the nervous system. Depending on the suspected cause, you may need:

- Blood tests
- Head imaging study (such as an MRI or CT scan)
- Spinal tap (lumbar puncture)

You may need to be referred to a doctor who specializes in vision problems related to the nervous system (neuro-ophthalmologist).

Treatment

If your provider diagnoses swelling or inflammation of, or around the nerve, medicines called corticosteroids may be used.

Sometimes, the condition disappears without treatment. If you have diabetes, you'll be advised to keep tight control of your blood sugar level.

Your provider may prescribe an eye patch to relieve the double vision. The patch can be removed after the nerve heals.

Surgery or special glasses (prisms) may be advised if there is no recovery in 6 to 12 months.

Outlook (Prognosis)

Treating the cause may improve the condition. Recovery often occurs within 3 months in older adults who have hypertension or diabetes. There is less chance of recovery in case of complete paralysis of the sixth nerve. The chances of recovery are less in children than in adults in case of traumatic injury of the nerve. Recovery is usually complete in cases of benign sixth nerve palsy in childhood.

Possible Complications

Complications may include permanent vision changes.

When to Contact a Medical Professional

Contact your provider if you have double vision.

Prevention

There is no way to prevent this condition. People with diabetes may reduce the risk by controlling their blood sugar.

Alternative Names

Abducens paralysis; Abducens palsy; Lateral rectus palsy; VIth nerve palsy; Cranial nerve VI palsy; Sixth nerve palsy; Neuropathy - sixth nerve

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Review Date 6/13/2024

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Health Content
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06/01/2028

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