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Craniopharyngioma

A craniopharyngioma is a noncancerous (benign) tumor that develops at the base of the brain near the pituitary gland.

Causes

The exact cause of the tumor is unknown.

This tumor most commonly affects children from 5 to 10 years of age. Adults can sometimes be affected. Boys and girls are equally likely to develop this tumor.

Symptoms

Craniopharyngioma causes symptoms by:

- Increasing pressure on the brain, usually from hydrocephalus
- Disrupting hormone production by the hypothalamus or pituitary gland
- Pressure or damage to the optic nerve

Increased pressure on the brain can cause:

- Headache
- Nausea
- Vomiting (especially in the morning)
- Change in appetite and weight
- Confusion and drowsiness

Damage to the pituitary gland causes hormone imbalances that can lead to excessive thirst and urination, and slow growth.

When the optic nerve is damaged by the tumor, vision problems develop. These defects are often permanent. They may get worse after surgery to remove the tumor.

Behavioral and learning problems may be present.

Exams and Tests

Your health care provider will perform a physical exam. Tests will be done to check for a tumor. These may include:

- Blood tests to measure hormone levels
- CT scan or MRI scan of the brain
- Examination of the nervous system
- Testing your vision

Treatment

The goal of the treatment is to relieve symptoms. Usually, surgery has been the main treatment for craniopharyngioma. However, radiation treatment instead of surgery or along with a smaller surgery may be the best choice for some people.

In tumors that cannot be removed completely with surgery alone, radiation therapy is used. If the tumor has a classic appearance on CT scan, a biopsy may not be needed if treatment with radiation alone is planned. In some people, a shunt may be placed to treat the hydrocephalus.

Stereotactic radiosurgery is performed at some medical centers.

This tumor is best treated at a center with experience in treating craniopharyngiomas.

Outlook (Prognosis)

In general, the outlook is good. There is an 80% to 90% chance of a cure if the tumor can be completely removed with surgery or treated with high doses of radiation. If the tumor returns, it will most often come back within the first 2 years after surgery.

The outlook depends on several factors, including:

- Whether the tumor can be completely removed
- Which nervous system problems and hormonal imbalances the tumor and treatment cause

Most of the problems with hormones and vision do not improve with treatment. Sometimes, the treatment may even make them worse.

Possible Complications

There may be long-term hormone, vision, and nervous system problems after craniopharyngioma is treated.

When the tumor is not completely removed, the condition may return.

When to Contact a Medical Professional

Contact your provider for the following symptoms:

- Headache, confusion, drowsiness, nausea, vomiting, or balance problems (signs of increased pressure on the brain)

- Failing to keep up in school
- Loss or gain of weight
- Increased thirst and urination
- Poor growth in a child
- Vision changes

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