Retinoblastoma

Retinoblastoma is a cancer (*malignant*) on the retina. The retina is the inside layer of the eye that has the nerves needed for sight (the *retina*). It happens in infants and young children. This cancer often develops before 2 years of age. It is treatable if treated early. This can happen in both eyes. There may be more than one tumor in the affected eye(s).

SYMPTOMS

- White or yellow pupil (*leukocoria*). This is sometimes seen when a photo is taken of the eyes, or just in normal light.
- A crossed eye (*strabismus*).
- A red, irritated eye that is different in size from the other eye. The affected eye is often bigger.
- If not treated early, the untreated retinoblastoma may get very large. It can spread around the eye and become disfiguring.
- Eye pain due to glaucoma or high pressure in the eye. This is a result of the tumor.

CAUSES

- Passed from one's parents (*inherited*).
- It may just appear.

DIAGNOSIS

The diagnosis is made during an eye exam. The child may need a drug to make them sleep (*general anesthesia*) so the ophthalmologist can look at the size and number of tumors present. Both eyes must be looked at very carefully. Other tests such as CT scans, ultrasound and X-ray may be needed.

Retinoblastomas sometimes happen in children with other cancers. This includes tumors of the bones (*Ewing Sarcoma, osteosarcoma*) and tumors of the nerves of the smelling sense (*olfactory*) system.

TREATMENT

The first concern is to save the life of the child.

Treatment depends on:

- The size of the tumor.
- The number of tumors.
- Whether or not both eyes are affected.
- The stage of the disease

Treatment options include:

- Removal of the eye(s) (*enucleation*). This is necessary if the tumor is large and there is no chance of saving any vision in the eye(s).
- Removal of the eye and all of the contents of the orbit (*evisceration*) may be required when the tumor invades orbit tissue outside of the eye.
- Radiation: This is a form of high energy x-ray treatment that kills cancer cells. External radiation is done with an x-ray machine that focuses the x-ray beams on the tumor(s). Internal radiation is a method of placing a small amount of radioactive substance directly into the tumor.
- Freezing the tumor to destroy the cancer cells (*Cryotherapy*).
- Using heat to destroy the cancer cells using a laser beam or ultrasound microwaves (*Thermotherapy*).
- Anti-cancer drugs (*Chemotherapy*).
- A combination of any or all of the above treatments.

Following treatment of one eye, the other eye must be looked at on a regular basis. This is to be sure that

retinoblastoma does not develop in that eye as well.

Since there are many possible forms of treatment, your doctor will explain the course of treatment suggested. They will give advice about post operative care, home care instructions and warning signs for which you should seek immediate care.

SEEK IMMEDIATE MEDICAL CARE IF:

- One pupil looks white or yellowish in color.
- One eye is crossed.

Document Released: 12/12/2002 Document Re-Released: 09/26/2009
ExitCare® Patient Information ©2011 ExitCare, LLC.