IDA-TALLINNA KESKHAIGLA

AS Ida-Tallinna Keskhaigla
Ravi 18, 10138 Tallinn
Rg-kood 10822068
Tel 666 1900
E-post info@itk.ee
www.itk.ee

Radiation therapy for malignant intraocular tumours (brachytherapy)

The purpose of this leaflet is to provide information about the nature, indications and risks of radiation therapy for malignant intraocular tumours (brachytherapy)

What is brachytherapy?

Radiation therapy for malignant intraocular tumours (brachytherapy) is used to destroy cancer cells and inhibit their growth. The main therapeutic indications include intraocular melanoma and retinoblastoma. The goal of the treatment is to reduce the risk of metastasis and preserve the eye and vision.

Nature of brachytherapy

Radiation therapy for malignant intraocular tumours requires two surgeries: one for plaque placement and one for plaque removal. The placement of a plaque is usually performed under general anaesthesia. During the plaque placement surgery, a special plaque with beta-emitting ruthenium-106 isotope is fixed on the surface of the eyeball at the site of the tumour. The plaque is sutured to the sclera and covered with the mucous membrane of the eye. The surgery is followed by inpatient treatment in the Eye Department. The number of days the patient spends in the hospital is determined on the first postoperative day after an ultrasound examination and dose calculation. While in hospital, you can do your normal daily activities. You are allowed to move around in the department; however, avoid contact with other people at distances closer than one meter. The beta radiation emitted by the plaque is not dangerous to other people in the room. Pregnant women and children under the age of 10 should avoid being closer than one meter to the patient for more than one hour per day.

When planning brachytherapy, your doctor will explain the nature of brachytherapy, provide you with this leaflet and obtain your written consent for treatment.

After brachytherapy

At the end of the treatment period, the plaque is removed. The removal of the plaque is usually performed under local anaesthesia. The plaque is removed from the sclera and the normal state of the eye tissue is restored.

You should start using anti-inflammatory eye drops already after the plaque placement surgery. The nurses at the Eye Department will instruct you and assist you if necessary. Eye drops should also be administered after the plaque removal surgery. After leaving the hospital, you should continue administering eye drops according to a fixed schedule provided by a nurse at the Eye Department. After the treatment period, you must have a follow-up visit at the time specified by your doctor.

Complications of brachytherapy

The complications of brachytherapy depend on the size and location of the tumour, the radiation dose and patient-related factors. The complications associated with radiation therapy may occur in the early postoperative period, but also months or years after the surgery.

Possible complications include:

- Cataract or clouding of the lens
- Radiation retinopathy or damage to the retina and swelling of the macula
- Radiation opticopathy or damage to the optic nerve
- Glaucoma or increased pressure in the eye
- Dry eye syndrome

The complications of radiation therapy can be vision-threatening and the vision loss can be irreversible.

ITK873
This information material has been approved on 01.01.2026.