Regionaalhaigla

LUTETIUM TREATMENT IN THE CASE OF A NEUROENDOCRINE SYSTEM TUMOUR

Lutetium (^{177}Lu-DOTATATE) is often used in the complex treatment of neuroendocrine system tumours, depending on the specific case. Lutetium accumulates in the cells of neuroendocrine tumours, which have somatostatin receptors on them, and destroys these cells.
During treatment, the patient usually spends 1−2 days in in-patient care in a single room with a toilet, sink and shower, but also TV, Internet (with and without a cable), phone, refrigerator, microwave oven and hairdryer.

Therapeutic indications include the foci of a neuroendocrine tumour whose cells have been confirmed to have somatostatin receptors on them.

Contraindications:
- pregnancy;
- breast-feeding;
- renal failure;
- hematopoietic disorders;
- liver function disorder;
- severe heart failure;
- severe general condition.

Possible side-effects:
- loss of appetite, nausea, vomiting;
- feeling weak;
- hematopoietic disorders.

Notify your attending physician and study personnel if:
- you are pregnant;
- you are breastfeeding;
- you have experienced claustrophobia – the fear of enclosed spaces.

Preparation for treatment
During pre-treatment consultation, the details of the treatment procedure, the course of the treatment, the expected benefits and possible side-effects are explained and you are given individual guidelines for pre-treatment and post-treatment care.
Six weeks before the treatment procedure, discontinue treatment with the long-acting somatostatin analogue. If this is not possible, you will first need to switch to a short-acting somatostatin analogue, which will be discontinued one day before treatment.

Breast-feeding should be discontinued right before treatment.
Since pregnancy is a contraindication, a pregnancy test will be performed before the treatment procedure, if necessary. After treatment, avoid conception for at least six months.

Administration of treatment
On the day of your treatment, you will again be briefed on the details of the procedure, the course of the procedure and radiation safety requirements related to the treatment. Your medical history will be reviewed and blood tests will be taken. Prior to the procedure, you will be asked to sign a consent form.

You must not eat for **4 hours** before and **1 hour** after the procedure. This will ensure absorption of the radioiodine administered orally in capsule form.

Before the administration of the treatment, premedication is performed to reduce the chance of possible side-effects. After that, within eight hours, you will be administered with an amino-acid solution for kidney protection. Once this protection is in place, ^{177}Lu-DOTATATE is administered intravenously within 15 minutes. Drink lots of fluids (2−3 litres) before and after the treatment procedure to protect your kidneys and excrete unbound pharmaceuticals.
Whole-body scintigraphy is performed the day after the administration of the medication to assess its distribution within the body.

If necessary, the treatment is repeated at 8- to 12-week intervals.

After the procedure:

- drink lots of fluid so that unbound pharmaceuticals are excreted;
- empty your bladder often to reduce the radiation burden on the bladder;
- wash your hands often and take care of your personal hygiene.
- for one month, limit close contact with the people around you, particularly babies, young children and pregnant or breastfeeding women;
- discontinue breastfeeding;
- for at least six months, use effective forms of contraception to prevent conception of a child;
- after radioiodine treatment is completed, remain under the supervision of a physician;
- if necessary, you will be given additional individual advice – follow it.

For additional information, please call 617 1221, 617 1216 or 617 1085.

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