

Scintigraphy is an imaging technique used to evaluate the metabolic processes in the tissues and lesions of the human body. A small amount of radiolabelled substance involved in the metabolism is injected into the patient's body to obtain an image. In the present case, it is an iodine-123-labelled substance that binds to neurotransmitter receptors in the brain.

Simultaneously, computed tomography (CT) is performed – with or without intravenous administration of contrast agent, as appropriate.

**Indications for the test:**

- diagnosis of Parkinson's disease and assessment of treatment efficacy;
- diagnosis of psychiatric disorders and assessment of treatment efficacy.

**A contraindication to the test** is the inability to hold the head still during the test.

**Inform medical staff about conditions that need special attention:**

- claustrophobia (fear of small or closed spaces);
- pregnancy; breastfeeding: you will receive guidance when to resume breastfeeding;
- you are unable to lie still.

**Preparation for the test**

Discontinue the use of medications that block neurotransmitter receptors a week before the test. Your doctor will inform you about which medications you should stop taking.

**The procedure**

The duration of the procedure, including preparation, is about 4–6 hours, depending on which neurotransmitter receptors are being studied. Before the test, a nurse will speak to you, insert an intravenous cannula and inject a tracer. Half an hour before the injection of the radioactive tracer, you will be given 400 mg of potassium perchlorate to protect the thyroid and salivary gland from the tracer. The tracer will be administered by slow intravenous injection. After the injection, you should wait in a dark room for 5 minutes.

The recording will be performed in 2 or 5 hours, depending on which neurotransmitter receptors are being studied. While waiting, you can temporarily leave the department with the consent of the staff of the Department of Nuclear Medicine.

The recording will last 30 minutes. During the recording, you will be asked to lie still to ensure a high-quality result.

**After the study:**

- follow your normal diet and drink plenty of fluids to foster removal of excessive tracer from the body;
- breastfeeding should usually be discontinued for 24 hours; removed breast milk should be discarded. Detailed instructions will be given to you by the personnel in the department;
- on the study day try to avoid close (less than 1 metre) and long lasting (over quarter an hour) contact with children and pregnant women;
- study results will be sent to referring physician within a week. If you have a doctor's appointment on the same day or the following day, please inform the study personnel.

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