Regionaalhaigla

PET/CT WITH 18 F- FDG

Positron-emission tomography (**PET**) is a nuclear medicine functional imaging technique that is used to observe metabolic processes in the body as an aid to the diagnosis of disease (source: Wikipedia). To obtain an image, a small amount of radioactive fluordeoxyglucose, analogue of glucose, is injected intravenously. This enables imaging of glucose metabolism in different organs and tissues, thus pointing to eventual loci of disease.
Simultaneously, computed tomography (CT) is performed – with or without intravenous administration of contrast agent, as appropriate.

Indications:

- diagnostic work-up in suspected malignancies, staging and restaging, therapy evaluation and prognosis assessment in tumours;
- assessment of brain metabolism;
- diagnosing inflammatory processes;
- evaluation of myocardial diseases.

Inform medical staff about conditions that need special attention:

- diabetes;
- pregnancy;
- breastfeeding: you will receive guidance when to resume breastfeeding;
- allergy (e.g. to contrast agent etc.);
- claustrophobia (fear of small or closed spaces).

Prior to study:

- fast for six hours, do not consume flavoured or sugar containing drinks (incl. juices with natural sugar content) chewing gum, pastilles, etc.;
- you may drink plain water to avoid thirst;
- on previous day and on the study day avoid intense physical activity: gymnastics, running, cycling, gardening etc.;
- for 24 hours before the study avoid caffeine, nicotine and alcohol;
- on the study day take your prescribed medicines unless your physician advises otherwise.

Study procedure

Please reserve for the entire study 2.5–3 hours.
Upon your arrival, a nurse will meet you for a short debriefing; blood glucose will be measured; an intravenous cannula will be placed; radioactive tracer will be injected. After the tracer is injected you need to rest for 45–90 minutes allowing the tracer to be accumulated in your body. Without need please not stand up, walk around or speak during this period, since the tracer will actively collect in the muscles and vocal chords affecting study results.
Acquisition of CT and PET scans takes up to 60 minutes depending on the area of the body being investigated. During that time, you will need to lie on the scanning table, please do not move in order to ensure the quality of the results.

After the study:

- follow your normal diet and drink plenty of fluids to foster removal of eccessive 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 houre) contact with children and pregnant women;
- if any medicines have been administered at the time of the study, you will receive further instructions from personnell;
- 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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