



Procedure Information Sheet Positron Emission Tomography and Computed Tomography (PET-CT)

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Attn. Dr.:
Patient No.: PN

*Please fill in /
affix patient's label*

Introduction

Positron emission tomography - computed tomography (PET-CT) is one of the most effective whole-body imaging techniques for cancer detection. The most widely used positron-emitting labelled radiotracer is fluorodeoxyglucose (FDG), labelled with F18. Increased glucose utilization is the characteristic of most cancer results in higher FDG accumulation than normal cell. Positron emission tomography (PET) scanner measures the distribution of the radiotracers and converts the signals to images. Metabolic abnormalities usually precede structural changes and are readily detected by PET. PET scan can facilitate early cancer detection and distinguish between the malignant and benign diseases.

Preparation

1. Fasting for 6 hours prior to examination. *Plain water is allowed.*
2. No Barium studied in last 10 days before appointment.
3. Please inform your doctor if you have history of adverse reaction to contrast medium. Doctors may prescribe steroid premedication for you before injection of contrast medium.
4. Please inform our staff if diabetes. Take any prescribed medication on the day of the examination, except the anti-diabetes medication during fasting.
5. Please inform our staff before the examination if you are or may be pregnant.
6. A written consent is required if intravenous injection of contrast medium is indicated.
7. Avoid exercise or lifting heavy objects on the day before examination.
8. Paediatric / uncooperative patients may require sedation which should be prescribed by referring doctors.
9. Stoma, incontinent patients should bring along spare stoma and urinary bags/diapers. Infant should come with spare diapers.
10. Please bring with medical records, films or reports for reference.

What is "10-day rule"?

When a female patient of child bearing age requires a PET-CT examination and if she cannot exclude the possibility of pregnancy, consideration should be given to postpone the examination by applying the "10-day rule". The examination should only be performed within 10 days from the onset of her menstruation.

Procedure

1. The whole procedure takes about 2 - 3 hours and is monitored by healthcare professionals.
2. Set up an intravenous line.
3. Perform blood glucose test.
4. Radiopharmaceutical is injected and remains quiet for 1 hour.
5. Empty bladder before scan.
6. During the examination, lie on the table of the PET-CT scanner. Please keep still for 20 minutes and listen carefully to the instructions given by our staff.
7. Intravenous contrast medium may be needed to improve the diagnostic quality of the images.



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On the Same Day after Examination

1. Resume diet and exercise.
2. Encourage water intake.
3. Please urinate seated to avoid spillage on the floor and flush the toilet twice.
4. Avoid prolonged and close contact with pregnant women and children under 12 years of age.

Complications of Contrast Medium Administration

1. **Mild reactions** – Itching, urticaria, nausea, vomiting, feeling of warmth, pain at the injection site, sneezing, coughing, etc.
2. **More severe reactions** – Shortness of breath, wheezing, irregular heartbeat, chest pain, convulsions, kidney failure, hypertension, unconsciousness, etc. These reactions usually require medical treatment and the chance of occurrence is about 4 in 10,000.
3. **Death** – The chance of death is rare and the fatal occurrence is about 2.1 in 1,000,000.
4. **Delayed reactions** – A few patients may experience delayed reactions and include arm pain, itching, rash, painful or swollen salivary glands, etc.
5. **Contrast extravasation** – It is a potential complication that due to the leakage of contrast medium to soft tissue adjacent to the injection site. It may result in swelling or pain and is commonly self-limited. More severe injuries may result in tissue necrosis.
6. For diabetic patients on **Metformin** and with impaired kidney function, there is increased risk of lactic acidosis.

Remarks

If you have any question about the procedure, please feel free to ask the staff of the Radiology Department.

References

1. Smart Patient (Website : <http://www21.ha.org.hk>)
2. FDG PET/CT: EANM procedure guidelines for tumour imaging (Version 2.0, 2014)
3. ACR Manual on Contrast Media (Version 10.3, 2018)

I acknowledge that I have understood the above information and was given opportunity to ask questions concerning my procedure.

Name of Patient / Relative

Signature

Relationship (If any)

Date