

患者氏名 :

患者 ID :

Information about Computerized Tomography (CT) Scans or Urography with Contrast Medium

For this CT scan or urography, a drug called a “contrast medium” will be injected during the examination. Using a contrast medium will clarify the condition of your disease, which will be useful for your treatment in the future. A CT scan can be performed without a contrast medium; however, a CT scan without contrast medium could fail to reveal a disease, in some cases, a proper diagnosis cannot be made, and a disease may be overlooked. The contrast medium is safe; however, adverse reactions can rarely occur. Different adverse reactions to contrast medium are listed below:

- (1) Mild adverse reactions (e.g. nausea, palpitations, headaches, itchiness, or rashes): Basically, these reactions do not require treatment. Fewer than 5 in approximately 100 patients, i.e. less than 5% of patients, have these reactions.
- (2) Severe adverse reactions (e.g. difficulty breathing, loss of consciousness, or hypotension): These reactions usually require treatment and after-effects may remain. Therefore, hospitalization or surgery may be required. One in approximately 1,000 patients, i.e. 0.1% of patients, have these reactions.
- (3) Very rare adverse reactions: one in approximately 100,000 to 200,000 patients, i.e. 0.0005 to 0.001% of patients, may die, depending on the patient’s condition or constitution.
- (4) Even if you did not have an adverse reaction to the contrast medium during a previous examination, you could have a reaction this time.

When the contrast medium is injected:

- (1) You may feel hot; however, you do not need to be concerned, because this is a normal reaction to direct stimulation of the blood vessel.
- (2) The contrast medium may leak outside the blood vessel, because it is injected with some force. The injection site may be swollen and painful. Because the contrast medium will basically be absorbed after a while, you do not need to be concerned. If the leakage is massive, another treatment may be required, but this happens very rarely.

In this hospital, we perform examinations fully prepared to handle adverse reactions. If you feel something is unusual, please let us know immediately, without hesitation.

患者氏名 :
患者 ID :

Adverse Reactions Caused by Computerized Tomography (CT) Scans or Urography with Contrast Medium

A drug called “iodinated contrast medium” is used for a CT scan or urinary contrast examination. A contrast examination is not always necessary. Its necessity varies depending on the type of disease. Please understand that a contrast medium is contraindicated for any of the following patients and it can cause any of the following adverse reactions:

1. Contraindications and relative contraindications of the use of contrast medium

- Contraindications (cases in which a contrast medium must not be used)
 - Patients with hypersensitivity to iodinated contrast medium
 - Patients with severe thyroid gland disease (iodine may accumulate in the thyroid gland, which may worsen the patient’s symptoms)
- Relative contraindications (cases in which a contrast medium is, in principle, not used; however, it can be used very carefully if necessary)
 - Patients in very poor general condition

Patients with asthma

Patients with severe cardiac disease, severe liver disease, or poor renal function
Patients with acute pancreatitis, macroglobulinemia, multiple myeloma, tetanus, or pheochromocytom

Administration of the contrast medium with caution: The contrast medium must be administered carefully in any of the following cases:

Patients who have an allergic constitution, causing a rash or hives, etc., or whose blood relatives have an allergic constitution; a patient with drug hypersensitivity, dehydration, hypertension, arteriosclerosis, diabetes, thyroid gland disease, or impaired liver function; an elderly person, an infant, or a child

2. Adverse reactions to contrast medium

Mild adverse reactions (incidence: Approx. 3%, 3 in 100 patients)

Nausea, palpitations, headaches, itchiness, or rashes are included. These do not require treatment in most cases.

Severe adverse reactions (incidence: Approx. 0.01%, 1 in 10,000 patients)

Difficulty breathing, loss of consciousness, and hypotension are included. These require treatment and after-effects may remain.

In some cases, hospitalization or surgery may be required.

患者氏名 :
患者 ID :

3. Other precautions

- One in 100,000 to 200,000 patients (0.0005 to 0.001% of patients) may die.
- Approximately a 10-fold greater possibility of severe adverse reactions is reported for patients with a history of asthma, compared to those without it.
- Delayed adverse reactions, including rashes and itchiness, may very rarely occur, even one week after the examination.
- You may feel uncomfortable temporarily during or just after the injection of the contrast medium. (This is due to hypotension caused by vascular reflex and it is not hypersensitivity to the contrast medium.)

Precautions for co-administration with contrast medium: If you are taking any of the following drugs, in principle, the drugs should be withdrawn before the scan.

Biguanides (anti-diabetic drugs)

(Brand name: Mita, Medet, Melbin, Nelbis, Glycoran, Ditoben S, Dibetos B, Metformin, Towa, Metrion, etc.)

In combination with a contrast medium, these drugs can induce stronger adverse reactions. We therefore request that such a drug be withdrawn for a specified length of time (i.e. for five full days in total, from two days before the scan until two days after the scan).

(1) What is iodinated contrast medium?

Iodinated contrast medium is a colorless, transparent, and slightly viscous liquid. Because it does not allow X-rays to penetrate it, body areas containing this contrast medium appear as white on images. After being injected into a vein, the contrast medium is distributed to blood-rich tissues through vessels throughout the body, and most of it is excreted in the urine through the kidneys within one day. The patterns of distribution and the excretion route can be used to diagnose diseases. Therefore, if your renal function is impaired, it may worsen, in addition to causing a slower excretion of the contrast medium. Careful attention is needed if your renal function is impaired.

(2) Advantages of using a contrast medium for CT scans

Using a contrast medium provides various advantages as described below, and it enables us to diagnose diseases more accurately from the images that are taken. Therefore, although chances of occurrence of adverse reactions to contrast medium are higher, your doctor may recommend a contrast examination if it is necessary for diagnosis.

患者氏名 :
患者 ID :

- A) Detailed information about blood vessels can be obtained.
To diagnose occlusion, stenosis, vascular malformation, or dissociation, etc. and to understand the relationship between the locations of tumors and blood vessels.
- B)) Information about blood flow in every organ can be obtained.
e.g. Diagnosis of infarction in a kidney or the spleen.
- C) Mass-forming diseases (e.g. tumors or abscesses) can be easily detected.
e.g. Detection of tumors in the liver or kidney.
- D) It is useful to diagnose the characteristics of lesions.
e.g. Differential diagnosis between a benign and malignant liver tumor, or among a malignant tumor, an angioma, and a cyst.
- E) There are other advantages depending on which type of disease is being examined.

(3) Procedures and precautions for the injection of the contrast medium

During a contrast examination, a doctor, a radiology technician, and a nurse always observe your condition so that they can respond in case something unusual occurs.

During the injection of the contrast medium, you may feel warm. Because this is a normal reaction, and not an adverse reaction, you do not need to be concerned. The degree of warmth varies depending on the speed of the injection.

Because the contrast medium is injected with some force, it may leak outside the blood vessel. Please keep your arm still for as long as possible during the scan. Even if the contrast medium leaks out, it will be absorbed over time, and treatment is usually not required. If the leakage is massive, however, treatment may be required, but this happens very rarely.

(4) What are delayed adverse reactions?

Delayed adverse reactions may rarely occur within one week after the examination. In most cases, they are mild, such as a rash or itchiness.

***By signing below, I confirm that I have read and understood the information provided above.**

Date (YYYY/MM/DD): _____ / _____ / _____

Patient's signature: _____