



Information on Intravenous Urography (IVU) / Intravenous Pyelogram (IVP)

Introduction

Intravenous Urography (IVU) / Intravenous Pyelogram (IVP) is an X-ray investigation of the urinary system by intravenous injection of iodinated contrast medium.

Indication

Suspected kidney or urinary track disease.

The Examination

1. You will be advised to empty your bladder. To start with, we will take a plain radiograph of your abdomen to look for any stones. If indicated, more projections will be taken.
2. Then you will have the injection of contrast medium, which may make you feel flushing or even nauseated. Series of radiographs of the urinary system will be taken at different intervals.
3. Meanwhile, you may have a tight band placed across your abdomen to improve the visualization of your kidneys. Before the end of the examination, you may be asked to go to the lavatory again to empty your bladder. Full bladder and empty bladder views may also be taken for completion of the examination.
4. Usually, the examination will last 2 hours or even longer for some situations.

Before the Examination

1. A written consent is required.
2. Female patients of aged between 10 to 60 years (excluding patients with previous hysterectomy or tubal ligation) are also need to have the consent form signed before examination.
3. Inform medical staff before the examination if patient is or may be pregnant as the examination involves high dose of X-ray that is harmful to a foetus. Pregnancy test may be necessary in case of any doubt if the examination is to be proceed.
4. Inform doctor of history of allergy to drugs, and contrast medium. Oral or intravenous steroid premedication may be needed before injection of contrast medium.
5. Keep fasting for 4 hours prior to the examination.
6. For diabetic patient on drug - consult clinician concerned for the adjustment of insulin dosage if necessary.
7. You should avoid having high residue diet two days before the examination. (e.g. vegetable, fruits or cereal)
8. For better bowel preparation, you should take laxative tablets as instructed (if any).
9. All metallic objects (e.g. watches, jewellery, ear rings, hair pins... etc.) should be removed before examination and kept safe by yourself.

After the Examination

Drink more water to facilitate excretion of contrast medium.

Risk and Complication

Allergic reaction to intravenous contrast medium.

- **Mild reactions:** For example, itching, mild skin rash, nausea, vomiting, feeling of warmth, arm pain, sneezing, coughing, and chest tightness. A few patients may experience delayed reactions usually within 24 hours, which include pain at injection site, itching, rash, painful or swollen salivary glands. The symptoms are usually transient, requiring minimal or no treatment.
- **Moderate reactions:** These symptoms are more severe and last for longer duration. Patient may also experience rash or urticaria, fever and chills, an increase or decrease in blood pressure and palpitation. Specific treatment and close monitoring are required.
- **Severe reactions:** The symptoms include shortness of breath, irregular heartbeat, chest pain, severe kidney failure, convulsion, and unconsciousness. If these symptoms occur, the patient will require urgent medical treatment.
- **Death:** Contrast medium may cause severe allergic reaction and leading to death but it is extremely rare

Disclaimer

This leaflet only provides general information pertaining to this examination. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

University Hospital Southampton. Retrieved on 4 Dec 2012, from

<http://www.uhs.nhs.uk/OurServices/Radiology-scansandimaging/PatientInformation/IntravenousPyelogram-IVPorIntravenousUrogram-IVU.aspx>

Signature of Patient: _____ Date: _____

Patient's Label

Patient Name: _____
Hospital No: _____
Episode No: _____