Information on Radiofrequency Ablation for Tumours

Introduction

1. One relatively new technique called radiofrequency ablation has shown good results in treating lung or liver tumours in some patients. In this technique, a small needle is attached to a device that delivers radiofrequency (RF) energy. The needle is inserted into the tumour and the RF energy heats and destroys cancerous tissue.
2. The procedure will be performed by a team of experts from different specialties, which may include radiologists with special training in interventional radiology, surgeons, anaesthetists and other medical experts.
3. It will be performed in the Radiology Department under fluoroscopy, ultrasound, or computed tomography (CT) guidance.

The Procedure

1. The procedure can be performed percutaneously (insertion of needle through skin), RFA can be performed under heavy sedation or general anaesthesia.
2. Before the procedure, an electrode pad will be attached to the thighs of the patient. This is necessary for the application of RF energy during the procedure. Antibiotics may be given to prevent infection. An intravenous line will be set for administration of fluids and drugs.
3. The skin of the patient's chest will be exposed and cleaned with antiseptic. Local anaesthetics will be injected. The lesion is localized with one of the imaging techniques, such as fluoroscopy, ultrasound, or computer tomography. After proper placement of the needle, RF energy will be delivered to the tumour.
4. The average duration of the procedure is 1 to 4 hours.
5. After the procedure, the patient will be transferred back to the ward for recovery and monitoring of vital signs (blood pressure and pulses).
6. The patient may have nausea, pain, and fever after the procedure. This is usually short lasting and subsides with medication. If the recovery is good, the patient will be discharged from the hospital after doctor's assessment.
7. The patient will have regular follow up in the outpatient clinic. Appropriate imaging will be performed to monitor the response of the tumour to treatment.
8. Depending on the size and status of the tumour, repeated RF sessions may be needed.

Before the Procedure

1. A written consent is required.
2. Please inform our staff before the examination if the patient thinks she is pregnant.
3. Check bleeding parameters, to be corrected if problem detected.
4. Fast for 4 hours before examination.
5. Antibiotic cover prior to examination when necessary.
6. Check history of allergies and give steroid if necessary.
7. Set up venous access.

Patient's Label
Patient Name: _____
Hospital No:_____
Episode No:_____

Risk and Complication

1. Post-ablation syndrome (common): flu-like symptoms that last about five days.
2. Bleeding (uncommon).
3. Severe pain (uncommon).
4. Adjacent visceral injury. The risk is related to the location of the tumour.
5. Pneumothorax 30% (RFA lung tumours).
6. Infection or abscess formation.
7. Procedure related death (rare).
8. 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 procedure. 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

The Hong Kong Society of Interventional Radiology Limited, Patient Information Leaflet: TACE (2010)

Smart Patient Website by Hospital Authority: Radiofrequency Ablation for Liver Tumors (12/2002)

Signature of Patient:_____ Date: _____

Patient's Label
Patient Name: _____
Hospital No:_____
Episode No:_____