

HIFU for the Treatment of Thyroid Nodules

高強度聚焦超聲治療甲狀腺結節

Introduction

High Intensity Focused Ultrasound (HIFU) for the treatment of Thyroid Nodule.

It is a thermal ablation of benign thyroid nodules.

This is a treatment for patient, who have benign thyroid disease (i.e. benign thyroid nodules), does not keen for traditional surgical treatment.

The new procedure is a minimally invasive approach which can avoid to have a wound on neck, or other parts like axillary and mouth. It does not need general anesthesia during the procedure. Patient can be recovery faster and earlier than traditional surgery.

The procedure

Patient extends neck for the USG guided ablation on bed. Sedation and local anesthesia will be applied to patient before the treatment. The robotic arm of the HIFU machine will be placed on his/her neck to mark the target area. The high intensity focused ultrasound will produce thermal energy and ablate the target area (i.e. thyroid nodule). Every pulse of thermal energy takes 8-10 seconds, and then 30 seconds for skin cooling down. The ablation will last 20-35 mins regarding the size of nodule. The extra sedation and anesthesia will be added if the patient feel more pain.

Risk

HIFU may lead to the following problem(s):

1. Skin burns, bruising, redness, edema of the skin tissue at the site of treatment.
2. Pain/discomfort in the treatment area.
3. Hoarseness of voice or dysphonia due to the vocal cord paresis usually lasting for a few months
4. Longer-term pain as if nerve damage or loss of sensation, scar formation from skin burn during procedure.
5. Nodule regrowth following successful ablation years later
6. Unintentional damage in accurate tissue ablation as if the patient moves during the treatment.

You may also experience the following discomforts due to the medicine given ablation:

7. Nausea, vomiting, headache, digestive troubles (heartburn or stomach aches) and changes in blood pressure (too high or too low) or heart rate (too low).

Preparation before the procedure

Patient should fast before 6 hours of the treatment, probably start fasting from the previous night 12:00 until treatment finish. Only fasting is required for the thyroid nodule patients. Patient does not need to stop any his/her medications.

Care after the procedure

No specific actions that patient should or should not do after the procedure. Patient can place an ice pack on neck for remission of neck pain and neck swelling after HIFU treatment.

Follow up

Patient will attend to Endocrine Surgery Clinic (Block S, 4/F in Queen Mary Hospital) for health management after treatment. To check their nodule size reduction and thyroid function test if need,

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor.