

# **PERCUTANEOUS FINE NEEDLE ASPIRATION (FNA)/ BIOPSY OF THYROID NODULE, NECK MASS AND NECK LYMPH NODE**

*Information for patients*

## **Introduction**

- Needle biopsy is a medical procedure performed to identify the nature of a lump or a mass or other abnormal condition in the body. During the procedure, a small needle is inserted into the abnormal area through skin under X-ray, ultrasound or other imaging guidance. A sample of tissue is removed via the needle and sent to a pathologist for diagnosis. Because the biopsy is performed through the skin, it is called a percutaneous biopsy. For a mass lesion, we may use a very fine needle to aspirate tissue sample and the procedure is then called fine needle aspiration (FNA).
- The nature of a thyroid nodule, neck mass or neck lymph node may not be determined by imaging studies and other clinical investigations. Biopsy / FNA will then be required for subsequent management.
- This procedure will be performed by radiologists with special training in interventional radiology. The procedure will generally be performed in the Department of Radiology under image guidance, such as ultrasound or computed tomography (CT).

## **Procedure**

- The procedure will be performed under aseptic technique.
- Whether local anesthesia is given will depend on the individual situation.
- Duration of the procedure varies, depending on the complexity of the condition. It may take only 30 minutes though you may need to stay in the Department of Radiology for over an hour altogether.
- Do not expect to get the result of the biopsy / FNA before you leave, as it may take a few days to do all the necessary tests on the specimen.
- During and after the procedure, your vital signs (like blood pressure and pulse rate) will be monitored.

## **Potential Complications**

- Post biopsy blood clot formation is uncommon. They are usually small and self-limiting. Rarely, a big clot may require surgical exploration to relieve the pressure effect on the airway.
- Soft tissue infection induced by the procedure is uncommon.
- Tumor implantation along the biopsy tract has been reported but rare.
- Other very rare complications include coughing blood (haemoptysis) due to tracheal injury, and recurrent laryngeal nerve injury, which may cause paralysis of vocal cord, hoarseness of voice or difficulty in breathing.
- Unfortunately, not all biopsies / FNAs are successful. They are subjected to sampling error, or the abnormal tissue obtained is not adequate for diagnosis. In such circumstances, the biopsy / FNA may have to be repeated on another day.

- Despite these potential complications, percutaneous biopsy / FNA is normally very safe and is designed to save you from having a major procedure. A positive diagnosis can help you to get the appropriate treatment. Common complications are generally minor and severe complications do not happen very often.

## **Disclaimer**

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