香港浸信會醫院
Hong Kong Baptist Hospital

C01

Information on Percutaneous FNA / Biopsy of Pulmonary Mass

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Introduction

1. FNA or biopsy is a medical procedure performed to identify the nature of a lump or a mass or other abnormal condition in the body. The procedure can be done under X-Ray, ultrasound or CT guidance through the overlying skin (i.e. percutaneous). Small amount of tissue or fluid sample inside the lesion can be obtained by inserting a very small needle to the region of interest, so called the fine needle aspiration (FNA). Or a complete core of tissue can be obtained via a larger biopsy needle under imaging guidance, so called the core biopsy.
2. The nature of pulmonary mass may not be determined by imaging studies and other clinical investigations. Biopsy / FNA will then be required for a more definitive diagnosis.
3. The procedure will be performed by trained specialists. The procedure will generally be performed in the Department of Radiology under imaging guidance.

The Procedure

1. The procedure will be performed under local anesthesia and aseptic technique. The nurse will sterilize the field of procedure and cover it with sterilized towel.
2. FNA is usually performed via a very fine needle inserting into the lesion concerned.
3. Core biopsy is usually performed via a larger biopsy needle inserting into the lesion concerned. A “click” sound will be encountered due to movement of needle parts during the biopsy procedure.
4. 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.
5. Before, during and after the procedure, your vital signs (like blood pressure and pulse rate) will be monitored.
6. Specimen will be sent to pathological laboratory for examination which may take a few days to complete.

Before the Procedure

1. A written consent is required.
2. Please inform our staff before the examination if the patient thinks she is or may be pregnant.
3. Check clotting profile for any bleeding tendency, to be corrected if abnormality detected.
4. Except medication, fast for 4 hours before examination.

Risk and Complication

1. Air can get into the space around the lung, a condition called pneumothorax (less than 25%).Such conditions are usually self-limiting. However, if there is significant pneumothorax as shown up in the post-procedure chest X-ray (less than 1/3 of such cases), then the air will need to be drained via a wide-bore plastic tube (so called chest drain) inserted through the skin into the space around the lung.
2. Bleeding occurs in the lung (manifests as coughing blood in sputum), usually self limiting (less than 10%).
3. Massive bleeding in the lung (pulmonary haemorrhage) is rare.
4. Death after the procedure, due to tension pneumothorax, air embolism and pulmonary hemorrhage (less than 0.02%).
5. Risk of infection or organ injury requiring surgery (rare).
6. Unfortunately, not all biopsies / FNAs are successful. They are subjected to sampling error, or rarely the abnormal tissue obtained is not adequate for diagnosis. In such circumstances, the biopsy / FNA may have to be repeated on another day.
7. 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.
8. Common complications are generally minor and severe complications do not happen very often.

Should a complication occur, another life-saving procedure or treatment may be required immediately.

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:
Percutaneous Fine Needle Aspiration (FNA) / Biopsy of Pulmonary Mass (2010)

Signature of Patient:_____ Date: _____

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