

Introduction

1. Percutaneous Fine Needle Aspiration (FNA) / Biopsy is a medical procedure performed to identify the nature of a mass or other abnormal condition in the body. A very fine needle is inserted into the abnormal area through skin (percutaneous) under imaging guidance. A sample of tissue is removed via the needle (aspiration) and sent to a pathologist for diagnosis.
2. When the nature of a pulmonary mass cannot be determined by imaging studies and other clinical investigations, FNA will then be required for diagnosis and subsequent management.
3. This procedure will be performed by radiologist under image guidance, such as X-ray, computed tomography (CT) or ultrasound.

Procedure

1. The procedure will be performed under local anesthesia by aseptic technique.
2. 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.
3. 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.
4. During and after the procedure, your vital signs (like blood pressure and pulse rate) will be monitored.

Preparations

1. Sign the consent form.
2. Please inform the staff of Radiology Department if you are pregnant or may be pregnant.
3. Check Clotting profile (INR), and Correct if abnormal.
4. Keep fasting for 4-6 hours before the procedure.
5. Some patients may need antibiotic prophylaxis.
6. Please follow the instruction during the procedure.

Potential Risks & Complications

1. Procedure itself may induce cough and wound pain.
2. 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 (called a chest drain) inserted through the skin into the space around the lung.
3. Bleeding occurs in the lung (manifests as coughing blood in sputum), (less than 10%) usually self limiting.
4. Massive bleeding in the lung (pulmonary haemorrhage), risk of infection or organ injury requiring surgery: rare.
5. Death due to tension pneumothorax, air embolism and pulmonary hemorrhage (less than 0.02%).
6. 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.
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. Common complications are generally minor and severe complications do not happen very often.

Things to take note after discharge

1. Contact your doctor or a nearby Accident & Emergency Department if you find increasing discharge, pain or redness around the wound, high fever over **38°C or 100°F**, etc.
2. Take analgesics prescribed by your doctor as necessary.
3. Keep the wound dressing clean and dry, change the dressing if necessary.
4. Attend follow-up consultations as scheduled.

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. Evangel Hospital reserves the right to amend this leaflet without prior notice. We welcome suggestions or enquiries on the information provided in this leaflet. Please contact our Healthcare professionals so that we could follow up and make improvement.

Reference

The Hong Kong Society of Interventional Radiology: 《胸內結節經皮細針吸取 (FNA) / 活組織檢查術 - 患者須知》(2010)
<http://www.hksir.org.hk/document/PatInfLeaflet/TChn/pdf/TC25%20FNA%20&%20biopsy%20lung%20TC%202010.pdf> (25-07-2023)