香港浸信會醫院
Hong Kong Baptist Hospital

Information on Percutaneous FNA / Core Biopsy of Breast Lesion

Introduction

1. FNA and core biopsy are medical procedures performed to identify the nature of lesions in the breasts most commonly masses or microcalcifications.
2. The procedure can be done under X-ray, ultrasound or other imaging guidance through the overlying skin (i.e. percutaneous). During FNA, a very fine needle is inserted into the area of interest in the breast to aspirate small amount of tissue or fluid sample for cytological analysis. For core biopsy, a larger cutting needle is used to obtain a complete core of tissue for histological analysis.
3. The procedure will be performed by trained specialists. The procedure will generally be performed in the Radiology Department under ultrasound or stereotactic x-ray guidance.

The Procedure

1. The procedure will be performed under aseptic technique. The nurse will sterilize the field of procedure and cover it with sterilized towel.
2. FNA is usually performed without local anesthesia via a very fine needle inserting into the lesion concerned.
3. Core biopsy is usually performed under local anesthesia. Two or more passes of biopsy needle may be required to obtain adequate tissue for optimal assessment. 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 15 minutes, though for the more complicated cases the duration may be over 90 minutes.
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. Under X-ray guidance:
   - Inform medical staff before the examination if the patient is or may be pregnant as the examination involves radiation that is harmful to a fetus. A pregnancy test may be necessary in case of any doubt regarding the examination has to be proceed.
   - No contraceptive method is 100% effective.
   - You should also tell our nurse or radiographer the date of your last menstrual period (LMP).
   - You may be offered a pregnancy test (blood or urine) if necessary. However, please note pregnancy tests CANNOT exclude the possibility of a very early pregnancy.
   - We will assess your likehood of being pregnant, based on the available information.
   - If you are pregnant or if the possibility of pregnancy cannot be excluded, doctor will re-assess the potential risk and benefit of performing this radiological examination to you and your fetus.
   - If the benefit of performing this radiological examination is greater than the risk, we may continue with this examination if you agree. It is your right to decide whether you want to continue with this examination.
   - If the risk of performing this radiological examination is greater than the benefit, we may consider arranging alternative investigations which do not use radiation, or to reschedule this examination.
   - After the examination, in the case that you realise you might have already been pregnant on the date of this examination, please consult your clinical doctor for advice as soon as possible.

Risk and Complication

1. Minor bruising around biopsy site (common).
2. Big blood clot formation (uncommon).
3. Big blood clot requiring surgical drainage (0.1%).
4. Infection requiring drainage and/or antibiotic treatment (0.1%).
5. Possible tumour seeding: has been reported but very rare, 0.005% for FNA.
6. Pneumothorax (under ultrasound guidance) (0.01%).
7. Unfortunately, not all core biopsies / FNAs are successful. They are subject to sampling error or rarely the tissue samples obtained may be inadequate for diagnosis and for some pathological diagnoses, excision biopsy is the appropriate next step of management. In such circumstances, the repeated core biopsy / FNA or excision biopsy may have to be done.
8. Despite these potential complications, percutaneous breast core biopsy / FNA is normally very safe and is designed to save you from having excision biopsy which is more invasive. A positive diagnosis can help you to get the appropriate treatment. Common complications are minor and severe complications are very rare.

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

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

Is there any risk in local anaesthesia?

In general, local anaesthesia is a very safe technique and the risk directly associated with local anaesthesia is small. The complications include localized adverse effects and general adverse effects.

Localized adverse effects:

- Painful on injection
- Prolonged numbness, tingling, feeling of "pins and needles", or strange sensations
- Temporary or permanent nerve damage. Risk of nerve damage is rare, (between 1 in 5,000 to 1 in 30,000). The vast majority of those affected (92%–97%) will recover within four to six weeks. 99% of these people will recover within a year.

General systemic adverse effects:

General systemic adverse effects are due to the pharmacological effects of the anesthetic agents used. These adverse effects occur rarely and only if the amount of local anaesthetic drugs used exceed the recommended range.:

- Allergy to local anaesthetic drugs
- Convulsion
- Coma
- Respiratory depression
- Cardiac arrhythmia
- Death

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 FNA (Fine Needle Aspiration) / Core Biopsy of Breast Lesion (2010)
Smart Patient Website by Hospital Authority: Radiological Investigation Information to Women of Child-bearing Age (2019)
Hong Kong Baptist Hospital, Information on Procedures: Information on Local anaesthesia (CI/MANT/1002v03/Jul20)

Signature of Patient:_____ Date: _____

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