



Information on Vacuum-Assisted (Breast) Biopsy

Introduction

1. Vacuum-Assisted (Breast) Biopsy (hereafter referred to as “this Procedure”) is a clinical procedure to identify the nature of breast lesions most commonly masses or microcalcifications. The procedure can be done percutaneous (i.e. through the overlying skin) under X-ray, ultrasound or other imaging guidance.
2. This procedure uses a vacuum powered instrument to collect multiple tissue samples during one needle insertion. The samples are used for histopathology analysis.
3. Complete excision of breast lesions may not be achieved.
4. This procedure will be performed by a trained specialist, in the Radiology Department under ultrasound or stereotactic x-ray guidance.

The Procedure

1. This procedure will be performed under aseptic technique. The field of procedure will be sterilized and covered with sterilized towel.
2. This procedure is usually performed under local anesthesia. A vacuum pressure is used to pull tissues from the breast lesion through the needle into the sampling chamber. The needle is rotated to different positions without withdrawing and reinserting, to collect 8 to 10 samples from the lesion.
3. Duration of this procedure varies, from 15 minutes to over 90 minutes, depending on the complexity of the condition.
4. Before, during and after the procedure, your vital signs (blood pressure and pulse rate) will be monitored.
5. It will take a few days for completion of the histopathology report.

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 X-ray guidance 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 likelihood 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 the needle insertion 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. Pneumothorax despite ultrasound guidance (0.01%).
6. Despite these potential complications, this procedure is normally very safe and is designed to save a more invasive excision biopsy. A positive diagnosis can help to get the appropriate treatment. Common complications are minor and severe complications are very rare. Should a severe complication occur, another life-saving procedure or treatment may be required immediately.

Patient's Label

Patient Name: _____
Hospital No: _____
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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

Part of the information is extracted from the patient information website provided by the Radiological Society of North America, Inc. (RSNA): Stereotactic Breast Biopsy. Retrieved on 12 Dec 2013 from:

<http://www.radiologyinfo.org/en/info.cfm?pg=breastbixr>

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: _____

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