# **Fine-needle aspiration.**

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### Introduction

- FNAB (= fine-needle aspiration biopsy) or FNAC (= fine-needle aspiration cytology) can be used for diagnostic purposes in most swellings, and in various areas.
- Correctly done, this procedure will provide valuable information with minimal invasion.
- FNAC is an expensive special investigation!



# Technique

- Disinfect the skin. (Local anaesthetic is optional)
- Use a 22G needle (=black) connected to a 10cc syringe.
- Immobilize the lesion/tumor with one hand.
- Insert the needle through the skin into the lesion and apply suction.
- Maintaining suction, angle the needle through different directions and depths of the tumor, working quickly.

## Technique continued...

- Then, loosen the suction passively.
- Do not withdraw under suction or all the cellular material will enter the syringe and will be lost to cytological evaluation.
- NB:The cellular material is in the needle !!!!
- Without aspirating air, expel the contents onto a glass slide.

#### Continued.....

- Disconnect the needle and aspirate air into the syringe.
- Reconnect the needle to the syringe.
- Now expel the content in the needle again.
- Repeat about 3 times in total.
- NB: You must work quickly because the material must not dry out.

#### Continued.....

- Gently place a second slide over the aspirated material on the glass slide and wait briefly for the material to spread by capillary action.
- Then gently slide the two slides apart -- do not press -- this will damage the cells.
- Air dry the top slide -- for Giemsa stains.
- Immediately spray fix the bottom slide with cytological spray fixative, at a distance of 25cm, gently and liberally.

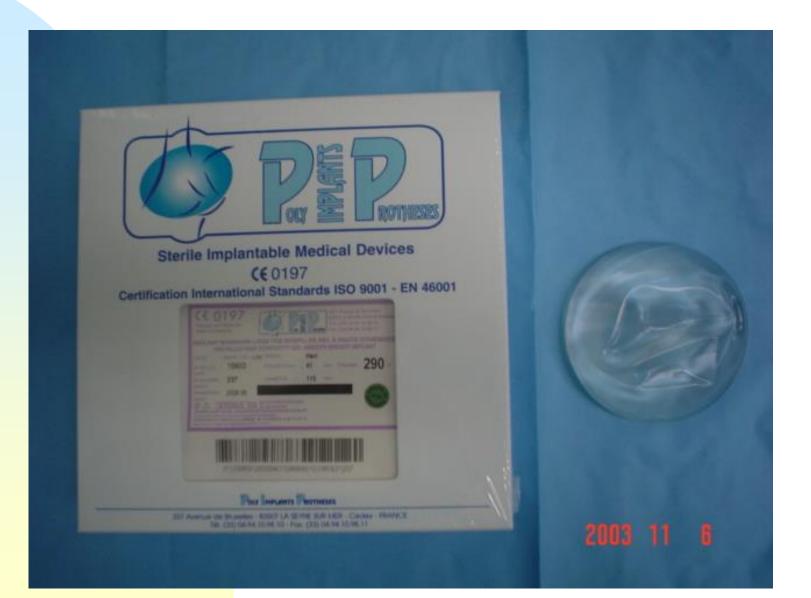
#### Continued.....

- NB: Do NOT air dry the bottom slide --- this is where most of the cellular material is and it is needed for routine PAP stains!
- Repeat the whole process with a new needle and syringe.
- NB: Perform 2-3 passes per lesion (and end up with 4-6 slides).
- Label the slides with a hospital or file number.
- Wait for the slides to dry completely.

#### Finally.....

- Wrap in cardboard or plastic slide trays, or in paper -- to protect it against breakage.
- Fill in a request form with relevant history.
- Send to the laboratory -- Cytology section for examination by a cytopathologist!

#### Carefull!!



#### **Cardboard slide tray**

