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Innovations and Ideas

# Formalin Flush to Remove a Stuck Biopsy Specimen

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#### **Quick Response Code:**



#### **BACKGROUND**

- During a biopsy procedure, small tissue samples are collected. These specimens sometimes get stuck in the biopsy punch or needle due to their small size, texture or adherence to the tool [Figure 1].
- Specimen removal with other modalities, such as needle or toothed forceps, can damage the specimen, potentially affecting pathological findings.
- The formalin flush helps avoid damage to the sample that might occur with mechanical removal methods.



**Figure 1:** Stuck biopsy specimen.

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Figure 2: Formalin push with partially closed lid.



Figure 3: Specimen collection.

# MATERIALS REQUIRED

- Formalin solution (10% neutral-buffered formalin is standard)
- A syringe 2cc (appropriate size for the biopsy punch)
- Sterile gloves
- A sterile container to collect the specimen.



Video 1: Video showing formalin flush.

#### **Procedure**

- 1. Attach the syringe
  - Fill the syringe with formalin

  - Gently insert the complete hub of the syringe into the back side of the punch [Figure 2].
- 2. Flush with formalin
  - Gently and steadily push formalin through the biopsy punch
  - Ensure the fluid flows in the direction that will expel the specimen into the sterile container containing formalin solution [Video 1].
- 3. Collect the specimen
  - Allow the specimen to enter a formalin-filled collection container with a partially closed lid. Avoid damaging it with excessive force [Figure 3].
- 4. Repeat if the punch does not get dislodged
  - If the first flush does not dislodge the specimen, try again with slightly more force or adjust the instrument's angle.

# Post-procedure

- 1. Inspect the specimen
  - Ensure the specimen is intact and suitable for pathological evaluation.
- 2. Document the procedure
  - Note the use of a formalin flush and any complications for accurate records.

## Advantage

Specimen is less damaged as compared with other modalities.

# Tips

- Use caution when flushing to avoid damaging delicate biopsy samples
- If the specimen remains stuck despite flushing, consider alternative methods.

# **CONCLUSION**

Formalin flush is a reliable, safe, and efficient technique for retrieving stuck biopsy specimens, improving specimen preservation, and contributing to more accurate diagnostic results. When used appropriately, it enhances the overall effectiveness of biopsy procedures, ensuring that quality specimens are available for further analysis.

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