
INTRODUCTION

Imaging guided percutaneous needle biopsy of neck lesions is a minimally invasive and often safe procedure that can usually be done on out-patient basis. It is often used as a first line for characterization of neck masses reserving more invasive modes of biopsy for lesions that are not reachable or if samples are insufficient. Like any other minor procedure, percutaneous needle biopsy requires minimal post-procedure monitoring and is associated with few complications.

COMMON INDICATIONS

- Determination of the nature of the mass/lesion

COMMON CONTRAINDICATIONS [1, 2]

There are no absolute contraindications. The relative contraindications to be considered include the following:

- Severe uncorrectable coagulopathy
- Hemodynamic instability
- Lack of a safe pathway to the lesion
- Lack of patient cooperation

POSSIBLE COMPLICATIONS [1–3]

- Vascular injury
- Airway compromise
- Hemorrhage
- Superinfection
- Vasovagal reaction

PREPROCEDURAL ASSESSMENT AND PLANNING

- History, indications, and physical examination (*Appendix 1* in Chap. 149)
- Evaluation of diagnostic imaging studies (*ultrasound, computed tomography, PET/CT, and/or magnetic resonance imaging*): to determine the location of the cervical mass/lesion of interest and evaluate the relevant anatomy

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- Periprocedural management of coagulation status (*Appendices 2* in Chap. 150 and 3 in Chap. 151)
- Antibiotic prophylaxis: Not routinely recommended [4] (*Appendices 4* in Chap. 152 and 5 in Chap. 153)
- Imaging modality for guidance: Ultrasound/CT guidance
- Positioning: Oblique/prone/supine

PROCEDURE NOTE

Procedure: CT/ultrasound-guided core biopsy of left/right/midline cervical mass/lesion

Staff: []

Fellow: []

Resident: []

Clinical History and Indications: Describe history and list indications

Allergies: None known/Allergic to [specify/type of allergy]

Anesthesia: Local anesthesia/Conscious sedation

Medications: List any relevant medications used (sedation)

Field: Sterile

Procedure classification: Clean

Position: Supine/Oblique/Prone

Monitoring: Intravenous access line was secured and vital signs were continuously monitored by nursing staff/anesthesia team throughout the procedure

Cumulative radiation dose: () mGy

Description of Procedure:

The risks, benefits, and procedure itself were explained to the patient/patient's Power of Attorney/legal guardian, and informed written/verbal consent was obtained. The site of the procedure was identified and marked. Time out was performed to confirm the correct patient, procedure, and site.

The neck was evaluated using ultrasound/CT scan after placement of a radiopaque marker and

showed the target lesion at the left/right/midline aspect of the neck.

The skin was prepped and draped in the usual sterile fashion. Local anesthesia was administered. A small skin incision was made. Subsequently, a ()-gauge core biopsy needle guide was advanced along the planned trajectory until the needle tip was within the target lesion. Samples were obtained using the coaxial technique, under direct ultrasound visualization/using planning CT information, placed in a formalin solution and sent for histopathological evaluation.

Post biopsy CT/ultrasound images were obtained.

The patient was transferred to the floor/recovery room following the procedure in a stable condition. Staff was present for the entire procedure.

Intra-Procedure Findings: List all relevant findings.

Immediate Complications: None encountered during or directly after the procedure. List complications if any.

Post-Procedure Plan [1–3, 5]:

- Follow-up histopathology results.
- Observe the patient in the recovery room following the procedure for 1 h.
- Discharge instructions:
 - Abstain from strenuous activities for 3 days.
 - Seek medical help if pain at the biopsy site lasts over one week, fever develops, erythema and edema develop at the biopsy site, or if there is purulent discharge.

Impression:

- Core biopsy of right/left/midline cervical mass/lesion, as described above.
- The patient tolerated the procedure well and left the interventional unit in a stable condition.
- List any other relevant or important information/finding.

References

1. Sherman PM, Yousem DM, Loevner LA. CT-guided aspirations in the head and neck: assessment of the first 216 cases. *AJNR Am J Neuroradiol.* 2004;25(9):1603–7.
2. Sack MJ, Weber RS, Weinstein GS, Chalian AA, Nisenbaum HL, Yousem DM. Image-guided fine-needle aspiration of the head and neck: five years' experience. *Arch Otolaryngol Head Neck Surg.* 1998;124(10):1155–61.
3. Charboneau JW, Reading CC, Welch TJ. CT and sonographically guided needle biopsy: current techniques and new innovations. *AJR Am J Roentgenol.* 1990;154(1):1–10.
4. Venkatesan AM, Kundu S, Sacks D, Wallace MJ, Wojak JC, Rose SC, et al. Practice guidelines for adult antibiotic prophylaxis during vascular and interventional radiology procedures. *J Vasc Interv Radiol.* 2010;21(11):1611–30.
5. Gupta S, Madoff DC. Percutaneous needle biopsy in cancer diagnosis and staging. *Tech Vasc Intervent Rad.* 2007;10(2):88–101.

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