Technical Refinement of Ultrasound-Guided Transoral Resection of Parapharyngeal/Retropharyngeal Thyroid Carcinoma Metastases

Genevieve Andrews, MD; Michael Kwon, MD, Gary Clayman, MD, DDS,1 Beth Edeiken, MD2 Michael Kupferman, MD1

Departments of 1Head & Neck Surgery, and 2Diagnostic Radiology, University of Texas, MD Anderson Cancer Center

INTRODUCTION

• Metastasis of well-differentiated thyroid carcinoma (WDTC) to the parapharyngeal and retropharyngeal lymph node basins is rare.

• Current techniques for the surgical resection of these metastatic nodes include a transfacial or transmandibular approach (Figure 1).

METHODS AND MATERIALS

• We identified 6 patients who had undergone ultrasound-guided transoral resection of PPS or RPS metastases of WDTC between 2013 and 2019.

• Demographic data, operative reports, pathological studies and patient outcomes were reviewed.

• The outcomes of patients included in a previous report are included.

• Operative Technique:

  - Induction of anesthesia:

    - Transoral intubation with an oral RAE tube in place in the oral cavity.

  - Transoral insetting with an oral RAE tube:

    - Placement of oropharyngoscope to expose the oral cavity (Figure 2).

  - If the patient is unable to be intubated by transoral approach, nontoxic intravenous sedation with orotracheal intubation can be performed.

  - Ultrasonography of the RPS or PPS performed transorally using an endobronchial ultrasound (EBUS) transducer directed towards the region of interest from within the transoral approach (Figure 3).

  - Location of metastatic node:

    - The MN is located posterior to the lateral pharyngeal wall (sphenoid sinus) or inferior to the hyoid bone and superior to the parapharyngeal space (Figure 4).

  - Transoral ultrasonography to identify the metastatic node:

    - Ultrasound-guided methylene blue dye injection to assist transoral surgical excision of metastatic nodes (Figure 5).