Robotic Retroauricular Thyroidectomy: A Case Series

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Introduction

Although the transcervical approach is conventionally used for thyroidectomy, some patients are willing to undergo a potentially more invasive procedure to avoid a visible scar in the neck. Technological advances in remote-access surgery have allowed procedures in the head and neck that avoid a visible scar. Despite significant adoption in Asia, the North American experience with remote-access thyroid surgery has been muted for various reasons. We aim to describe our initial clinical experience of robotic retroauricular approach for thyroidectomy on 20 patients in a 5-year period.

Methods and Materials

Study design: Case series

Methods: A retrospective review of consecutive patients who underwent robotic retroauricular thyroidectomy by a single high-volume surgeon between September 2011 and May 2016 was conducted. Data collected included demographics, procedure data including surgery minutes, pathology reports, and complications. Surgery time was defined from the first incision to the final incision closure. Operative time was defined from the time the patient enters the operating room to when the patient leaves the room.

Results

A total of 20 robotic retroauricular procedures were undertaken in 20 patients (N = 20). There were 20 female patients, with a mean age of 37.65 ± 10.11 years (range: 21 – 60). The mean BMI was 28.49 ± 7.68 (17 – 43.7). There were 20 female patients, with a mean age of 37.65 ± 10.11 years (range: 21 – 60). The mean BMI was 28.49 ± 7.68 (17 – 43.7). Side of the lesion: (n)

- Left: 10
- Right: 10

Tumor Size: cm (range)

- Dominant lobe size: 5.03 ± 1.03 (2.8 – 7.8)
- Dominant nodule size: 3.16 ± 1.27 (0.9 – 5.7)

Preoperative pathology:

- Bethesda I: 1
- Bethesda II: 8
- Bethesda III: 7
- Bethesda IV: 3

Operative time: mins ± SD (range)

- Surgery time: 202.3 ± 43.48 (124 – 293)
- Operative Time: 242.1 ± 41.27 (167 – 336)
- Anesthesia Time: 256.2 ± 44.73 (179 – 350)

Post-operative complications: n (%)

- Hypoesthesia: 14 (70%)
- Hypertrophic scar: 3 (15%)
- Transient hypocalcemia: 1 (5%)
- Transient vocal fold dysfunction: 1 (5%)
- Seroma: 1 (5%)
- Hematoma: 1 (5%)

Post-operative pathology: n (%)

- Benign: 14 (70%)
- Papillary thyroid cancer: 6 (30%)

Conclusions

Robotic retroauricular thyroidectomy is a safe and feasible option for a select group of patients very motivated to avoid a visible neck scar.

References

2. Haugen BR, Alexander EK, Bible KC et al. 2015 American Thyroid Association Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer. Thyroid: official journal of the American Thyroid Association 2016; 26:331–399.