

RADIOFREQUENCY ABLATION OF AN OBSTRUCTIVE PERI-STOMAL THYROID NODULE AFTER LARYNGECTOMY: A CASE REPORT

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Introduction

Radiofrequency ablation (RFA) has been demonstrated to be an effective treatment modality for benign thyroid nodules causing compressive or cosmetic symptoms.¹ In patients who undergo total laryngectomy without total thyroidectomy, complications of nodular disease may arise in the remaining thyroid tissue.

We describe the novel use of radiofrequency ablation for a large, obstructive thyroid nodule in a laryngectomy patient experiencing stomal narrowing and dysphagia.

Case Presentation

A 91-year-old male with a remote history of laryngeal cancer and laryngectomy in 2008 was referred to our clinic for the evaluation of a nodule to the left of his laryngectomy stoma that had gradually been enlarging over the years. The mass was causing partial obstruction of his stoma and solid-food dysphagia. Ultrasonography showed this to be an enlarged, isoechoic thyroid nodule measuring 2.7 cm in maximal dimension (Figure 1). Prior fine needle aspiration biopsies were consistent with a benign follicular neoplasm.

He underwent ultrasound-guided radiofrequency ablation of this lesion without significant adverse effects. Follow-up evaluation 7 months later demonstrated a marked reduction in the size of the nodule, with repeat imaging showing a maximal dimension of 1.6 cm (Figure 2A-B). The patient reported near resolution of his dysphagia and his stoma was no longer obstructed.



Figure 1. Still image of thyroid ultrasonography demonstrating enlarged homogeneous nodule without suspicious features. .

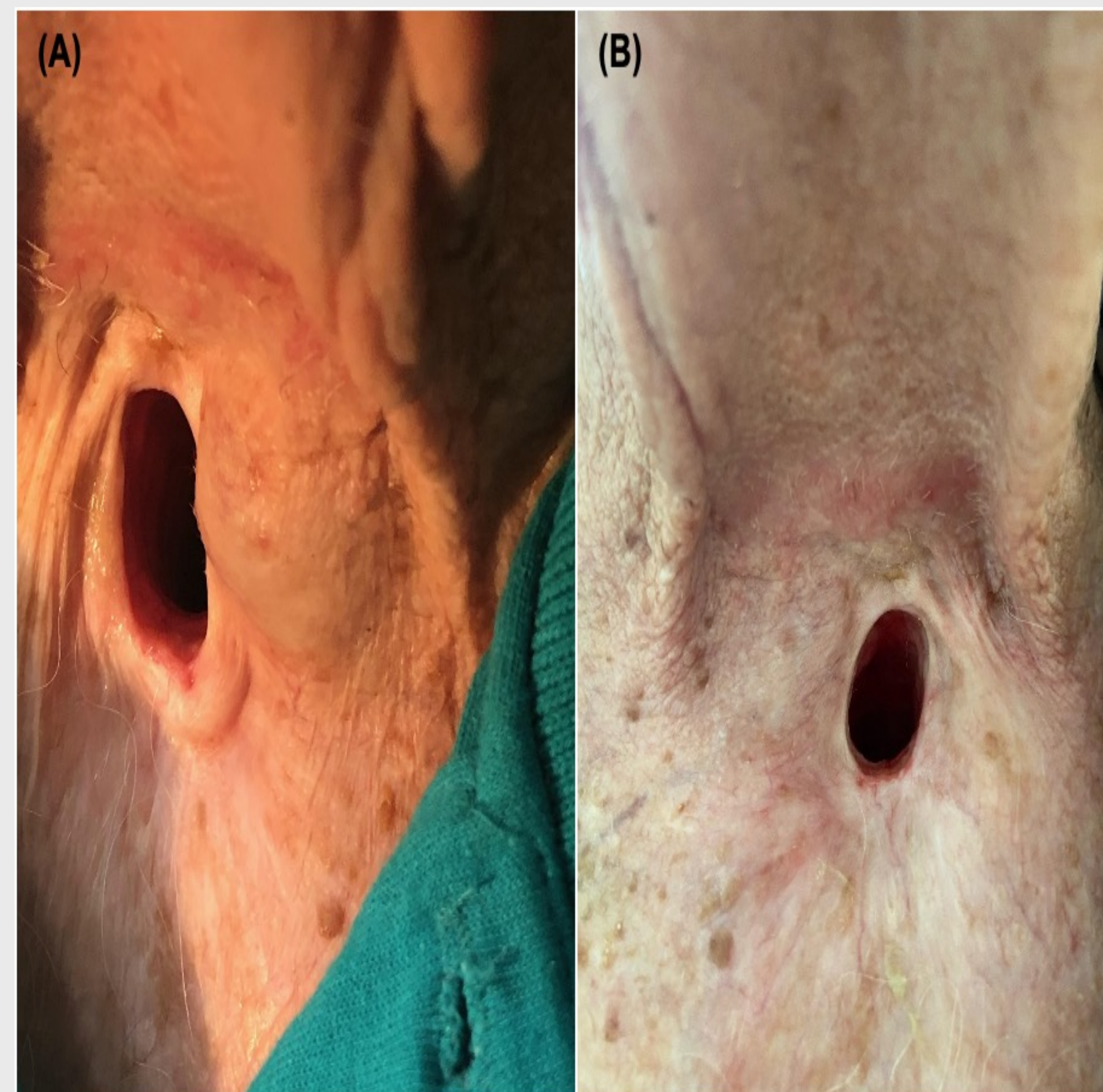


Figure 2. (A) Pre-procedural photograph submitted by patient of left peristomal thyroid nodule with mass effect on laryngectomy stoma. (B) Post-procedural photograph of laryngectomy stoma with significant improvement of appearance of nodule, 7 months post-ablation.

Discussion

- To our knowledge, this is the first report of radiofrequency ablation being utilized for the treatment of nodular thyroid disease causing stomal obstruction in a laryngectomy patient.
- RFA is the most effective ultrasound-guided technique for non-functioning, benign thyroid nodules when assessing volume reduction.²
- RFA is also less invasive and associated with fewer complications, lack of need for general anesthesia, lack of significant scarring, and thereby improved quality of life and cost efficiency compared to surgical excision.

Conclusion

- Given its proximity to the neopharynx and stoma, an enlarged thyroid nodule in the post-laryngectomy neck may present with more prominent symptoms of obstruction when compared to a similar nodule in a non-operated neck.
- RFA is an effective treatment that should be considered for total laryngectomy patients who present with symptomatic thyroid nodular enlargement.

References

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