



Editorial

What is the appropriate nodular size of differentiated thyroid cancer management by Transoral Endoscopic Thyroidectomy Vestibular Approach?

Dr Yi Ju Wu

Chang Gung Memorial
Hospital Taipei Taiwan

Thyroid nodular disease is a common problem in clinical practice. Incidental thyroid nodules are more frequently diagnosed because of the increased access to radiologic investigations [1]. Though thyroid nodules are common, malignant cases (4.0% to 6.5% of all thyroid nodules) are clinically significant and must be precisely diagnosed. Improvements in surgical techniques have reduced perioperative morbidities. The rates of permanent recurrent laryngeal nerve (RLN) dysfunction and hypoparathyroidism are <1% in experienced hands [2]. Recently, Anuwong reported that transoral endoscopic thyroidectomy vestibular approach (TOETVA) done for 60 selected cases has a low complication rate comparable to that of the conventional open thyroidectomy [3]. In this technique, endoscopic trocars were placed through a central incision in the oral vestibule and bilateral incisions in both sides of the oral commissure. The plane under the superficial fascia is entered away from the lower margin of mandibular bone to avoid damage of the marginal branch of the facial nerve as well as the facial vessels. However, retrieval of large thyroid specimens through the central incision of the TOETVA necessitated breaking it down into smaller fragments to avoid damage of the mental nerve. This can be problematic for a suspicious or malignant differentiated thyroid cancer (DTC), whose capsule should remain intact for a precise histopathologic examination [4,5]. Imprecise pathologic diagnosis negatively impacts further treatment, follow up and prognosis. However, in this technique of TOETVA, the thyroid specimen was all put and fragmented in the retrieval bag. Supposedly, the cancer should not be spilt out during the procedure of pull out. Thyroglobulin (TG) level 3-4 weeks post-surgery can be used to assess the size of the residual thyroid mass either locally or distally, and guide remnant I-131 ablation therapy [6].

Hence, we presume the prognosis of DTC would be affected by the procedure of fragmentation of TOETVA. In this issue, we would like to establish the critical largest diameter for DTC to be removed safely (with mental nerve preservation) and completely by the TOETVA technique. In our experience, we believe that the ideal nodular size should be <2.5cm to achieve safety and carcinologic goals.

References

- [1] Davies L, Welch HG: Increasing incidence of thyroid cancer in the United States, 1973-2002. *JAMA*.2006, 295:2164-7.
- [2] Tamhane S, Gharib H: Thyroid nodule update on diagnosis and management. *Clin.Diabetes. Endocrinol*.2016, 2:17.
- [3] Anuwong A: Transoral endoscopic thyroidectomy vestibular approach: A series of the first 60 human cases. *World.J.Surg*. 2016;40:491-7.
- [4] Wilhelm T, Harlaar JJ, Kerver A, Kleinrensink GJ, Benhidjeb T: Surgical anatomy of the floor of the oral cavity and the cervical spaces as a rationale for trans-oral, minimal-invasive endoscopic surgical procedures: results of anatomical studies. *Eur.Arch. Otorhinolaryngol*.2010, 267:1285-90.
- [5] Benhidjeb T, Stark M, Gerntke I, Mynbaev O, Witzel K: Transoral thyroidectomy-from experiment to clinical implementation. *Translational Cancer Research*.2017, 6: S174-78.
- [6] Indrasena BSH. Use of thyroglobulin as a tumour marker. *World.J.Biol.Chem*. 2017; 8: 81-5.