

# Transoral endoscopic thyroidectomy vestibular approach with intraoperative nerve monitoring

William B. Inabnet III<sup>1,2</sup> · Hyun Suh<sup>1</sup> · Gustavo Fernandez-Ranvier<sup>1</sup>

Received: 3 October 2016 / Accepted: 31 October 2016 / Published online: 10 November 2016  
© Springer Science+Business Media New York 2016

## Abstract

**Background** Transoral endoscopic thyroidectomy by a vestibular approach (TOETVA) is a novel technique for thyroid gland excision. Compared to the transaxillary endoscopic and bilateral axillo-breast approaches, which require substantial dissection to reach the thyroid gland, TOETVA provides the most direct access to the target organ.

**Methods** The aim of this video is to provide a step-by-step overview of TOETVA and demonstrate how to set up and utilize intraoperative nerve monitoring.

**Results** Three incisions are placed in the vestibular region of the oral cavity just below the lower lip for placement of 2 lateral 5-mm trocars and 1 centrally placed 11-mm trocar. Insufflation to 6 mm Hg is used to maintain the working

spacing. Using a 2-handed technique and triangulation, the thyroid gland is mobilized, taking care to identify and preserve the relevant cervical anatomy.

**Conclusion** TOETVA is safe and feasible and provides an excellent cosmetic outcome with the most confidentially compared to the other remote access endoscopic approaches.

**Keywords** Endoscopic · Thyroidectomy · Minimally invasive · Remote access · Transoral

## Compliance with ethical standards

**Disclosures** W. B. Inabnet, H. Suh and G. Fernandez-Ranvier have no conflicts of interest or financial ties to disclose.

**Electronic supplementary material** The online version of this article (doi:[10.1007/s00464-016-5322-y](https://doi.org/10.1007/s00464-016-5322-y)) contains supplementary material, which is available to authorized users.

✉ William B. Inabnet III  
william.inabnet@mountsinai.org

<sup>1</sup> Icahn School of Medicine at Mount Sinai, New York, NY, USA

<sup>2</sup> Department of Surgery, Mount Sinai Beth Israel, First Ave at 16th St, Baird Hall, 16th Floor, Suite 20, New York, NY 10003, USA