

—Photogravure—

## Video-assisted Endoscopic Endocrine Neck Surgery with a Benefit of Cosmesis: A New Technique Using a Totally Gasless Anterior Neck Skin Lifting Method

Kazuo Shimizu, Wataru Kitagawa, Haruki Akasu and Shigeo Tanaka  
Department of Surgery II, Nippon Medical School



Fig. 1

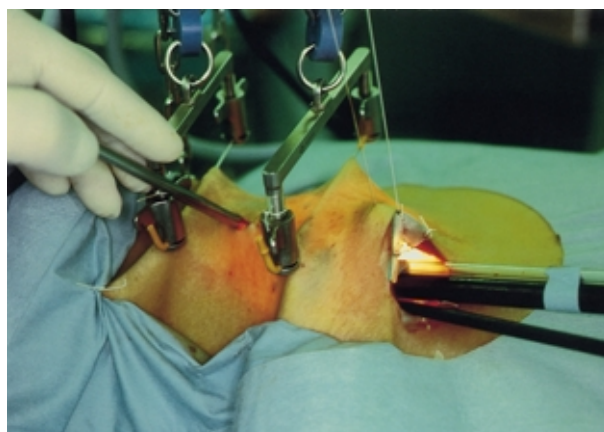
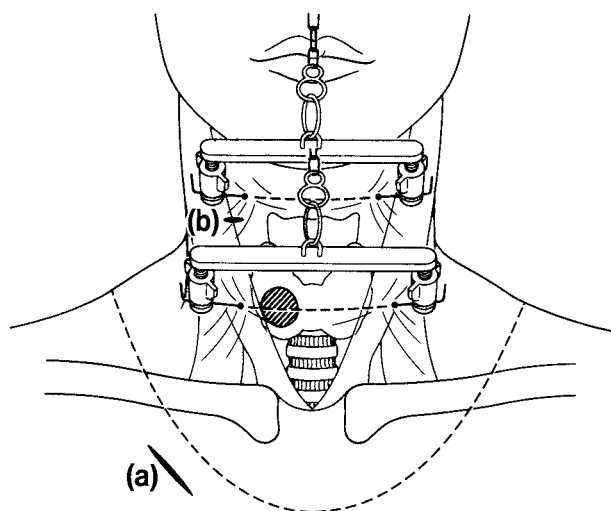


Fig. 2

The incidence of endocrine diseases in the neck is markedly higher in women than in men, and operations for these diseases sometimes result in a conspicuous scar on the anterior neck that is normally an exposed area when open-neck clothing is worn. Therefore, a surgical technique with consideration to the cosmetic viewpoint has been desirable. By widely generalizing endoscopic surgery, endoscopic thyroid and parathyroid surgery has developed and has been increasingly refined in recent years.

We originally developed video-assisted neck surgery using an anterior neck skin lifting method (termed the VANS method) for thyroid and parathyroid tumors in March, 1998<sup>12</sup> and have experienced more than 150 cases.

In thyroid tumors, the surgical indication is a strictly defined benign single nodule measuring less than 6 cm in diameter that is located in the hemi lobe while micropapillary carcinoma measuring less than 1 cm in diameter with no regional lymph node swelling<sup>34</sup>. In parathyroid tumors, the VANS method is indicated for a tumor that is preoperatively made an accurate localization.

According to a questionnaire, a hundred percent of the patients who underwent the VANS method expressed cosmetic satisfaction.

The VANS method is believed to be feasible, safe, and practical with cosmetic benefits.



Fig. 3



Fig. 5

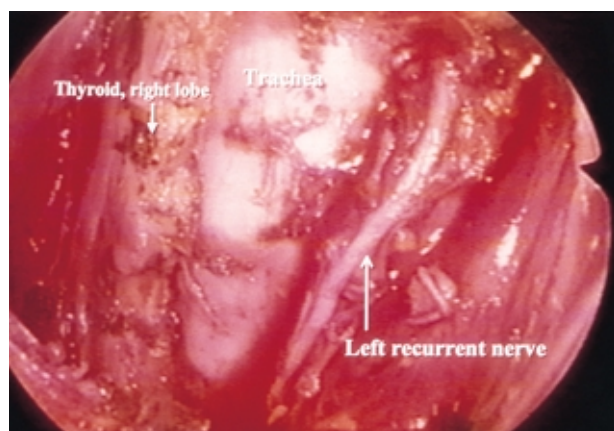


Fig. 4



Fig. 6

**Fig. 1** A patient after conventional thyroidectomy. The anterior neck incision sometimes develops an unattractive scar.

**Fig. 2** The VANS method. A small incision (a) comparable to the tumor size is made on the chest wall approximately 3 cm below the clavicle, which is concealed by open-neck clothing. After wide development of layer under the platysma, two pieces of Kirschner wire that are subcutaneously inserted are lifted up forward to create working space. A 5-mm incision (b) is made on the lateral neck to insert an endoscope (Schema; left). A lateral view of the VANS method (Picture; right).

**Fig. 3** Operating field. The left recurrent nerve and the left parathyroid gland are clearly visualized. The thyroid left lobe is almost mobilized from the trachea.

**Fig. 4** The operating field after left total lobectomy. The left recurrent nerve and the trachea are clearly exposed.

**Fig. 5, 6** The patients are shown one year (**Fig. 5**) and ten months (**Fig. 6**) after the VANS method. The main wound on the chest wall is becoming inconspicuous and a lateral neck wound has mostly disappeared in both patients, indicating cosmetic advantage.

#### [References]

1. Shimizu K, Akira S, Tanaka S: Video-assisted neck surgery: Endoscopic resection of benign thyroid tumor aiming at scarless surgery on the neck. *J Surg Oncol* 1998; 69: 178-180
2. Shimizu K, Akira S, Jasmi AY, Kitamura Y, Kitagawa W, Akasu H, Tanaka S: Video-assisted neck surgery: Endoscopic resection of thyroid tumors with a very minimal neck wound. *J Am Coll Surg* 1999; 188: 697-703.
3. Shimizu K, Kitagawa W, Akasu H, Tanaka S: Endoscopic hemithyroidectomy and prophylactic lymph node dissection for micropapillary carcinoma of the thyroid by using a totally gasless anterior neck skin lifting method. *J Surg Oncol* 2001; 77: 217-220.
4. Shimizu K: Minimally invasive thyroid surgery. *Baillieres Best Pract Res Clin Endocrinol Metab* 2001; 15: 123-137.