Letter to the Editor

Upper trachea sleeve resection and anastomosis for invasive thyroid carcinoma

Ottavio Rena,*, Giuliano Maggi, Alberto Oliaro, Caterina Casadio

Thoracic Surgery Division, University of Eastern Piedmont, ‘Maggiore della Carità’ General Hospital, C.so Mazzini 18, I-28100 Novara, Italy
Thoracic Surgery Division, University of Torino, ‘Molinette’ General Hospital, via Genova 3, I-10126 Torino, Italy

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We read with interest the paper of S. Watanabe et al. about the surgical management of a thyroid carcinoma invading the upper half of the tracheal wall [1]. Authors performed total thyroidectomy through a cervical collar incision and sleeve tracheal resection (six rings, from second to seventh—4.2 cm length) with subsequent tracheal anastomosis through an L-shaped unilateral right-sided mini-sternotomy (8 cm midline skin incision). Pratically they carried out a cervical collar incision added with minimally modified upper partial sternotomy (the sternum was divided from the suprasternal notch to the third intercostal space—the upper half of it).

The feasibility of the procedure through the described limited surgical incision warranting little postoperative pain, short hospital stay (the postoperative recovery duration is not reported) and excellent cosmetic result is emphasized.

Since 1970s, it is well known that circumferential resections of the upper half of the trachea are easily performed through cervical incision associated, if required, with upper partial median sternotomy [2–4]. It has been largely demonstrated that tracheal resections of 4.5 cm or less are safely performed with the only aid of a postoperative cervical flexion which causes minimal discomfort to the patient but warrants the less incidence of anastomotic dehiscence or stenosis [2–4].

At the end of the intervention, the suture line was wrapped with a flap of tissue dissected from the right lobe of the thymus: this procedure is described as useful, effective and less invasive than using an omental flap requiring the opening of the abdominal cavity. It has to be remarked that the utilization of omental flaps to reinforce the tracheal or bronchial anastomosis is not actually so diffused; this procedure has been largely utilized at the beginning of the lung transplantation era when bronchial sutures were reinforced and divided from the vascular ones using pedicled great omentum but, in our knowledge, it has been quite abandoned because of the associated co-morbidity of the abdominal intervention [5].

When the reinforcement of the bronchial or tracheal suture is requested, it can be easily carried out using intrathoracic or cervical tissues (pedicled neck muscle, fatty or connective tissue of the mediastinum, thymic tissue, pleural or pericardial flap, pedicled intercostal muscle, according to the type of surgical exposition). In the surgery of the upper trachea, the cervical anastomosis rarely requires to be reinforced [2–4]. Reinforcement and interposition of pedicled muscular flaps such as sternohyoid or sternothyroid between the tracheal and oesophageal or arterial sutures is recommended only during the surgical repair of tracheo-oesophageal or tracheo-innominate fistulas [3].

The utilization of the right lobe of the thymus to wrap the tracheal suture is only one of the technical options allowed by the described surgical access but there are no clear reasons to prefer this technique to others.

Concluding, we have to congratulate the authors for the good procedure they refer and the obtained results, but we think that they do not describe any innovation in the surgical management of tumours invading the upper half of the trachea.

References

Letter to the Editor

Cervical ultrasound in operable non-small cell lung cancer

C.S. Pramesh*, Rajesh C. Mistry, Gouri H. Pantvaidya, Vivek V. Upasani
Division of Thoracic Surgery, Department of Surgical Oncology, Tata Memorial Hospital, Mumbai 400012, India

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We read with interest the recent article [1] in the journal on the role of cervical ultrasonography in the staging workup of patients with otherwise operable non-small cell lung cancer (NSCLC). We were impressed by the simplicity of the study and the ability of cervical ultrasound to diagnose metastatic neck nodes in patients with impalpable nodes. We assume that these patients would otherwise have gone in for a mediastinoscopy and even thoracotomy and lung resection. Skip metastases are known in lung cancer and if the results of mediastinoscopy had been negative, they would have fallaciously been staged as T1–3, N0–1 tumors and treated with lung resection. This would not only have contributed to incorrect staging but also increased the number of ‘futile thoracotomies’. Even assuming a low pick up rate of 4% (other studies show a higher pick up rate for cervical lymph nodes, probably because they included higher stages of disease also), it is an important investigation in the preoperative workup of patients with operable lung cancer as it is a non-invasive, zero morbidity, low-cost investigation and spares a proportion of patients from undergoing unnecessary major surgery. As the authors rightly point out, we have readily accepted other investigations in metastatic workup (CT scans of liver and adrenals, brain) with much less yield. We would also like to emphasize that if radiological suspicion of metastasis is high, a formal lymph node biopsy should be done even if the fine needle aspiration cytology is negative.

Though it is fortuitous that the procedure has proven to be cost effective also, it should be strongly recommended in the routine preoperative workup even if it is marginally cost-ineffective, as it is difficult to put a price on the morbidity of a futile thoracotomy! Cervical ultrasonography would be even more useful in stage IIIA disease as it would not only obviate the need for an unnecessary mediastinoscopy, but it would also reclassify these patients as stage IIIB, which is usually treated with chemoradiotherapy rather than with neoadjuvant chemotherapy followed by surgery. We note that the study accrued patients between August 1997 and November 1998 and wonder whether the results of this study have prompted the incorporation of cervical ultrasound as part of the routine workup of patients with operable lung cancer in the authors’ unit. If so, it would be interesting to know further updated results of the procedure with larger numbers. We have started performing routine ultrasonography of the neck in patients staged I to IIIA prior to surgical resection and/or mediastinoscopy and will be able to add to the database on occult N3 disease in otherwise operable NSCLC.

Reference


* Corresponding author. Tel.: +91-22-241-77000; fax: +91-22-241-46937.
E-mail address: cspramesh@vsnl.net (C.S. Pramesh).

Reply to the Letter to the Editor

Reply to Pramesh et al.

Anthony P.C. Yim*
Department of Surgery, The Chinese University of Hong Kong, Prince of Wales Hospital, Hong Kong, Shatin, NT, China

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We appreciate the kind comments from Mr Pramesh and his colleagues on our paper. We are in the process of gathering more data on this subject, and has gone as far as having purchased our own portable ultrasound unit so that our surgical residents can do the initial neck screening