

Letter to the Editor in Chief regarding the paper entitled “Lateral hypopharyngectomy with laryngeal preservation reconstructed with inlay fascio-cutaneous free flaps: clinical and functional outcomes” by Lancini et al.

Key words: hypopharyngeal tumour, lateral hypopharyngectomy, conservative surgery, oncological reconstruction, endoscopic surgery, endoscopy

To the Editor,

We read with great interest the article “*Lateral hypopharyngectomy with laryngeal preservation reconstructed with inlay fascio-cutaneous free flaps: clinical and functional outcomes*” by Lancini et al.¹, recently published in *Acta Otorhinolaryngologica Italica*. The authors provide a commendable contribution to the surgical management of hypopharyngeal squamous cell carcinoma (HSCC) with laryngeal preservation and outline specific tumour-related criteria that must be met for their conservative approach to be feasible, i.e. 1) unilateral hypopharyngeal lesions centred on the lateral wall of the piriform sinus, without involvement of the retrocricoid region, posterior hypopharyngeal wall, or oesophageal mucosa; 2) preserved arytenoid motility, without invasion of the cricoid and/or thyroid cartilage. We believe that a combined transoral endoscopic approach provides higher precision in delineating the superior, superolateral, and superomedial resection margins of the hypopharynx. This technique enables accurate placement of the pharyngeal opening to the neck from an inside-to-outside perspective, thereby expanding the indications for conservative surgery even when the posterior hypopharyngeal wall is involved or for tumours originating from this region. We are pleased to share our experience with two cases of HSCC affecting the posterolateral and posterior wall of the hypopharynx, which we successfully resected using a combined open and transoral endoscopic technique.

Case 1

A 59-year-old male with a history of right-sided neck dissection and pharyngeal radiotherapy 13 years prior for treatment of a lymph node metastasis from an unknown primary, presented with a second primary squamous cell carcinoma (SCC) of the posterolateral wall of the left piriform sinus, clinically staged as T2N0. The tumour involved the entire lateral wall of the left piriform sinus without involvement of the apex, anterior corner, or medial wall; it also extended to the posterior wall of the hypopharynx, stopping within a few millimetres from the midline. Another separate millimetric SCC was identified on the lateral aspect of the pharyngo-epiglottic fold. After ipsilateral selective neck dissection of levels II-IV was completed, the patient underwent lateral and posterior hypo-

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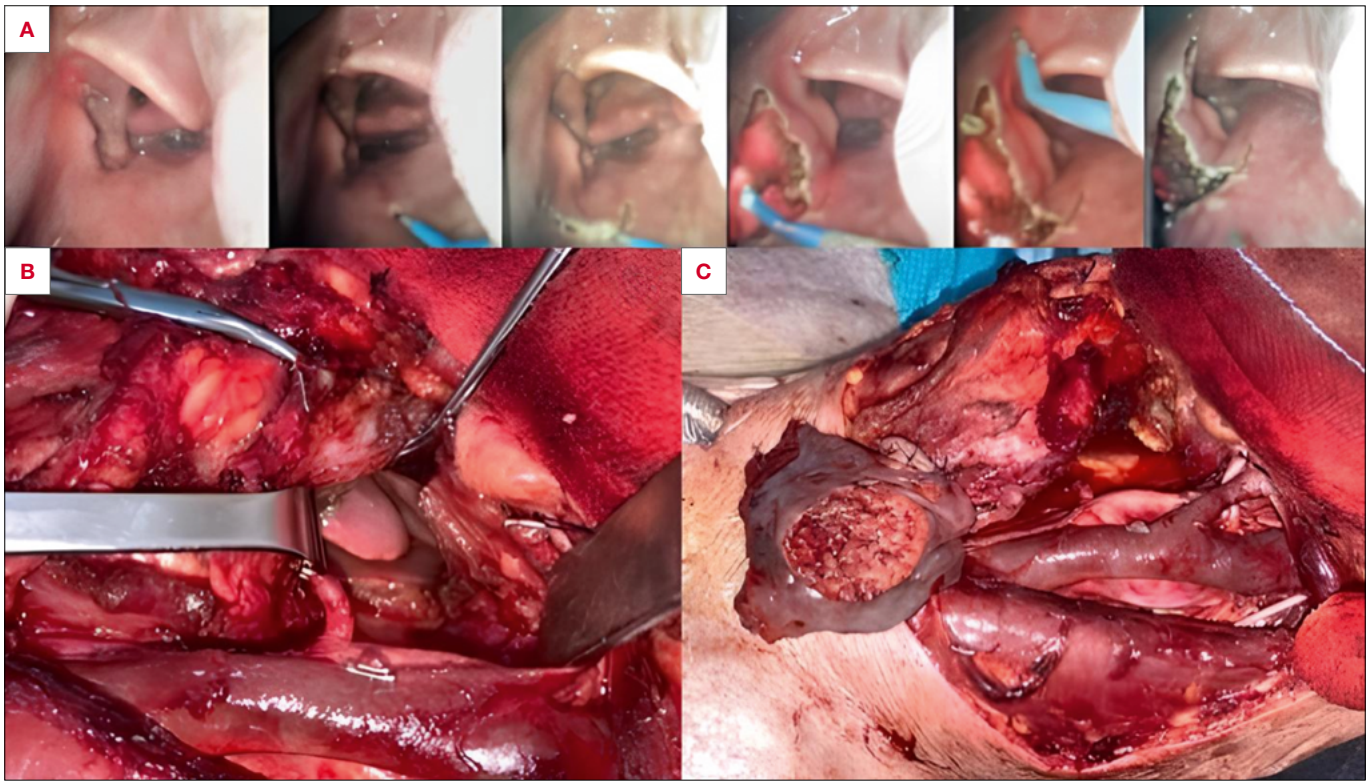


Figure 1. Combined open and transoral approach for the surgical excision of posterior wall hypopharyngeal squamous cell carcinoma. (A) transoral endoscopic view of the pharynx using the GlideScope®. Under continuous endoscopic guidance, using a Colorado needle cautery, a 2 cm communication is created between the pharyngeal mucosa and the neck in an inside-out fashion, extending from the superolateral margin of the tumour to the suprahyoid soft tissues; (B) from the cervical approach, the pharyngeal opening is progressively enlarged to facilitate direct visualisation and palpation of the tumour and adjacent mucosa; (C) this combined technique enables thorough assessment and manipulation of the lesion from the neck.

pharyngectomy with partial epiglottic resection, employing a mixed open and transoral approach. Endoscopic visualisation played a crucial role: using the GlideScope® (Bothell, USA) the superior, superolateral, and superomedial macroscopic margins of the tumour were precisely delineated, using the Colorado needle cautery (standard setting 20 W). Accurate outlining of the desired incision line is crucial, taking advantage of the instrument's ergonomic design and effective hemostatic properties. The Colorado needle cautery proved to be particularly suitable, as its tip can be easily curved and bent to enhance manoeuvrability which led us to prefer it over CO₂ laser or alternative devices.

Furthermore, a 2 cm communication between the pharyngeal mucosa and the neck was established in an inside-out manner, extending from the superolateral delineation to the suprahyoid soft tissues (Fig. 1A). Under continuous endoscopic guidance, the lateral edge of the epiglottis was divided to include the pharyngoepiglottic fold within the resection. From the neck, the pharyngeal opening was progressively

widened (Fig. 1B) by following the endoscopic mucosal delineation until a direct visualisation and palpation of the tumour and surrounding mucosa could be easily performed from the neck (Fig. 1C). The greater cornu of the hyoid bone and the superior cornu of the thyroid cartilage were also included, ensuring complete tumour removal while preserving critical structures. This combined technique facilitated accurate margin delineation with precise placement of the pharyngeal opening, minimising surgical trauma. The defect was reconstructed using a free radial forearm flap, which was deepithelialised to ensure better mucosal resurfacing, enhancing anatomical and functional integration. Postoperative laryngoscopy revealed normal laryngeal motility. The tracheotomy was closed on postoperative day 6, at which time oral intake was initiated. Complete recovery of swallowing was achieved by postoperative day 10, and the patient was discharged on postoperative day 16. Histopathologic examination revealed a pT2N0 SCC with negative surgical margins, and no perineural or lympho-vascular invasion.

Case 2

A 66-year-old female, active smoker, presented with a cT3N0 SCC of the posterior hypopharyngeal wall, predominantly on the left side. The tumour did not extend to the lateral walls, with its superior margin at the level of the free border of the epiglottis and the inferior margin just below the level of the posterior commissure. The retrocricoid region, the piriform sinuses, and the oesophageal inlet were free of disease. Following bilateral selective neck dissection of levels II-IV, the patient underwent partial hypopharyngectomy employing a combined open and transoral approach. Using the GlideScope® for direct visual control, the mucosa of the left piriform sinus and lateral pharyngeal wall below the tonsillar fossa were incised with Colorado needle cautery, creating a communication between the surgical field and the neck. Under endoscopic guidance, the superior resection margin was delineated just posterior to the free edge of the soft palate. From the neck, the pharyngeal opening was progressively widened by following the endoscopic mucosal delineation. The greater cornu of the hyoid bone and the superior cornu of the thyroid cartilage were removed to favour anterior displacement of the larynx, until a direct visualisation and palpation of the tumour and surrounding mucosa could be easily performed from the neck. The tumour was removed including a portion of the posterior oesophageal inlet to ensure sound macroscopic margins. Reconstruction was achieved with a free radial forearm free flap tailored to the anatomical requirements. A percutaneous endoscopic gastrostomy was placed in preparation for adjuvant treatment. Postoperative laryngoscopy revealed normal laryngeal motility. The tracheotomy was closed at postoperative day 7 and the patient was discharged on postoperative day 25, with oral feeding and gastrostomy integration. Histopathologic examination revealed a pT3N0 SCC, with a depth of invasion of 11 mm and a deep close margin towards the prevertebral fascia (all other margins were > 5 mm). There was presence of perineural invasion, but no lympho-vascular invasion. The patient completed adjuvant radiotherapy with no complications, and she resumed exclusive oral intake one month thereafter, granting removal of the gastrostomy.

Discussion

We compliment the authors for their technique ¹, although we believe that our mixed approach, combining open and transoral routes with endoscopic visualisation, can be beneficial in managing not only the lateral but also the poste-

rior wall of the hypopharynx, an historically challenging anatomical region ^{2,3}. Specifically, it allows for enhanced control over the lateral, superior and medial margins of the hypopharyngeal region, which are often challenging to delineate from the neck, and it ensures an accurate and convenient placement of the lateral pharyngeal opening, creating the appropriate window to complete a sound resection. Furthermore, through this approach, we achieved precise margin delineation while minimising unnecessary tissue disruption.

Conclusions

We sincerely thank the authors for their valuable contribution, which we hope will foster further dialogue and innovation in the field of hypopharyngeal surgery. Sharing our surgical technique, we believe, has the potential to broaden the application of this approach by extending the inclusion criteria. Nonetheless, further validation of our approach will require a larger series of cases.

Conflict of interest statement

The authors declare no conflict of interest.

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Author contributions

AD: conceptualization, writing, review; VC: writing and review; YGM: writing and review.

Ethical consideration

The research was conducted ethically, with all study procedures being performed in accordance with the requirements of the World Medical Association's Declaration of Helsinki. Written informed consent was obtained from each participant/patient for study participation and data publication.

References

- 1 Lancini D, Montenegro C, Mattavelli D, et al. Lateral hypopharyngectomy with laryngeal preservation reconstructed with inlay fascio-cutaneous free flaps: clinical and functional outcomes. *Acta Otorhinolaryngol Ital* 2024;44:361-367. <https://doi.org/10.14639/0392-100X-N3071>
- 2 Ogura JH, Watson RK, Jurema AA. Partial pharyngectomy and neck dissection for posterior hypopharyngeal cancer. Immediate reconstruction with preservation of voice. *Laryngoscope* 1960;70:1523-1534.
- 3 Owen RD, Lewis E, Livingstone G, et al. Discussion on operative removal and plastic repair in cases of carcinoma of the hypopharynx and upper oesophagus. *Proc R Soc Med* 1952;45:255-264.