



Oncological and functional outcomes of trans-oral robotic surgery for pyriform sinus carcinoma: A French GETTEC group study



Paul Mazerolle^a, Pierre Philouze^b, Renaud Garrel^c, Karine Aubry^d, Sylvain Morinière^e,
Sophie El Bedoui^f, Jean Ton Van^f, Christophe Ferron^g, Olivier Malard^g, Franck Jegoux^h,
Emilie Berardⁱ, Sébastien Vergez^{a,*}

^a Department of Surgery, University Cancer Institute Toulouse–Oncopole University Hospital of Toulouse, 1 Avenue Irène Joliot-Curie, 31059 Toulouse, France

^b Department of Head and Neck Surgery, Hospices Civils de Lyon, Lyon-Nord University Hospital, 103 Grande Rue de la Croix Rousse, 69000 Lyon, France

^c Department of Head and Neck Surgery, Montpellier Guy De Chauliac University Hospital, 80 Avenue Augustin Fliche, 34000 Montpellier, France

^d Department of Head and Neck Surgery, Limoges Dupuytren University Hospital, 2 Avenue Martin Luther King, 87000 Limoges, France

^e Department of Head and Neck Surgery, Tours Bretonneau University Hospital, 2 Boulevard Tonnellé, 37000 Tours, France

^f Department of Head and Neck Surgery, Lille Oscar Lambret Cancer Care Center, 3 Rue Frederic Combemale, 59000 Lille, France

^g Department of Head and Neck Surgery, Nantes University Hospital, 1 Place Alexis-Ricordeau, 44000 Nantes, France

^h Department of Head and Neck Surgery, Rennes University Hospital, 2 Rue Henri Le Guilloux, 35000 Rennes, France

ⁱ Department of Epidemiology, Health Economics and Public Health, UMR1027 INSERM-Toulouse University, Toulouse University Hospital (CHU), Toulouse, France

ARTICLE INFO

Keywords:

Transoral robotic surgery
Pyriform sinus cancer
Robotic hypopharyngectomy
Hypopharyngeal squamous cell carcinoma
Head and neck cancer
Organ preservation

ABSTRACT

Background: Pyriform sinus carcinomas (SCC) present specific functional and oncological issues. The recent advent of trans-oral robotic surgery (TORS), as a conservative procedure, has opened up new perspectives.

Objectives: To present the oncological and functional outcomes of TORS for pyriform sinus SCC.

Materials and methods: We included, retrospectively, all TORS procedures for pyriform sinus SCC performed between 2009 and 2017 in eight French tertiary referral centers. We excluded lesions involving the pyriform sinus that had developed from the oropharynx, larynx, or other anatomic sub-sites of the hypopharynx.

Results: We included 57 TORS procedures. Median hospital stay was 10 days. A preventive tracheotomy was performed in seven cases (12%), and all were successfully decannulated. Oral re-feeding was possible for 93%, after a median of 5 days. The main surgical complications were hemorrhages (three cases), all successfully handled, although 2 patients with heavy comorbidities died from blood loss in the days after. Adjuvant therapy was proposed in 31 cases (54%), including two cases of salvage surgery (total pharyngolaryngectomy). After a median follow-up of 23 months, overall and disease-free survival were, respectively, 84% and 74% at 24 months, and 66% and 50% at 48 months. At the end of follow-up, organ preservation rate was 96%. None of the surviving patients needed a tracheotomy and oral diet was possible for 96%.

Conclusion: The functional and oncological outcomes of TORS for pyriform sinus cancer are encouraging, and this procedure can be considered safe for selected early or moderately advanced cases as a conservative treatment.

Introduction

Hypopharyngeal squamous cell carcinomas (SCC) represent 20% of all upper aerodigestive-tract carcinomas, and have an associated poor prognosis. Overall survival at 5 years is estimated at between 15% and 45%; mostly because of the late diagnosis of these lesions, and the high potential for lymphatic dissemination in patients with numerous comorbidities [1,2]. Among the tumors, those located in the pyriform sinus, which account for 70% of hypopharyngeal cancers, represent a challenge for oncologists and surgeons. Their close association with

swallowing, breathing, and speaking functions make open surgery challenging. There is difficulty in restoring these functions with a partial pharyngectomy, or there is often the need for radical surgery, such as a total pharyngo-laryngectomy. These constraints have led to the development of organ-preservation protocols using radiotherapy or chemoradiotherapy. These are now the gold-standard treatment for early and moderately advanced hypopharyngeal SCC [3–5].

The recent advent of transoral robotic surgery (TORS), as a conservative procedure, has opened up new perspectives [6,7]. Well-described and validated for oropharynx and larynx surgery [8–10], it

* Corresponding author.

E-mail address: vergez.s@chu-toulouse.fr (S. Vergez).

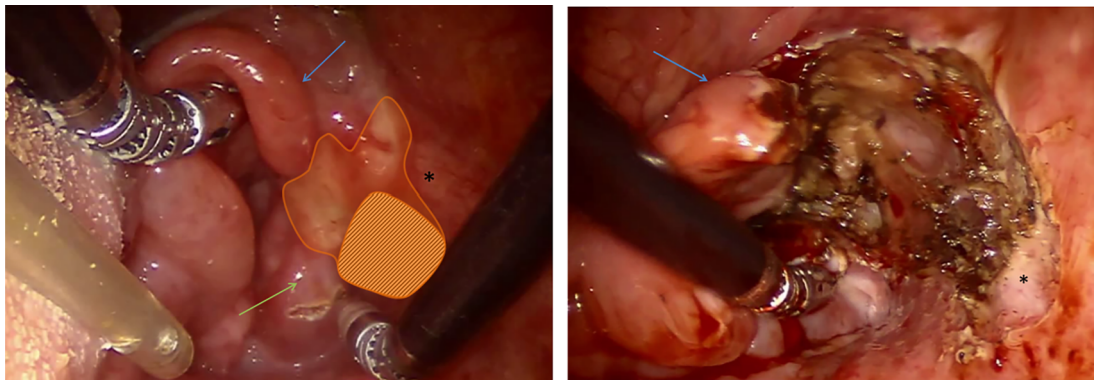


Fig. 1. Excision of a lesion centered on the anterior angle of the pyriform sinus (orange hatching), with extension to the 3-folds region, in salvage therapy for a tracheotomized patient, before (left) and after (right) excision. (Note the ablation of the right arytenoid, part of the epiglottis and the entire pharyngolaryngeal wall). Green arrow: right arytenoid; blue arrow: epiglottis; asterisk: thyroid cartilage. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

could be used in the therapeutic arsenal for pyriform sinus SCC. Some feasibility reports [11–15] and preliminary studies [16,17] show encouraging results using TORS for hypopharyngeal cancer. Park et al. recently reported on a long-term, prospective cohort that include 27 tumors located in the pyriform sinus: 100% of larynx were preserved with good oncologic results [18].

The objectives of this study were to present the functional and oncological outcomes of TORS on the pyriform sinus for SCC since 2009.

Materials and methods

Design and protocol

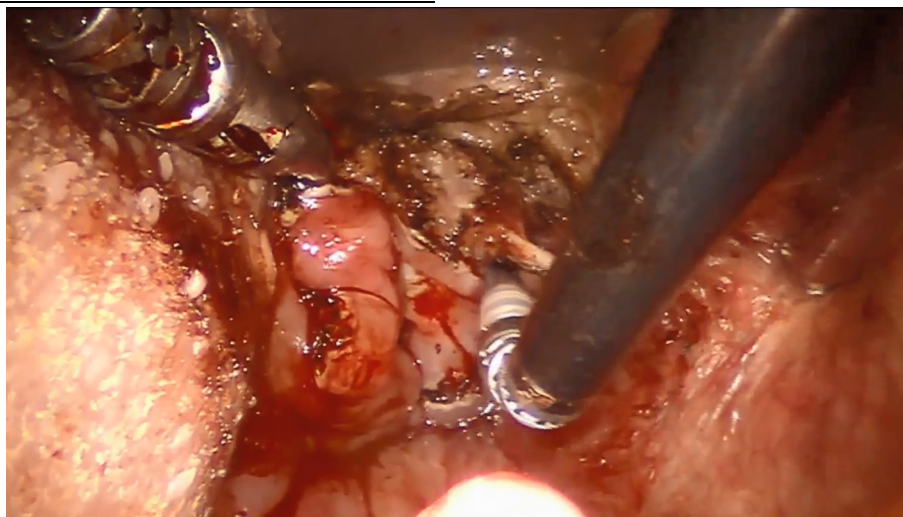
We conducted a retrospective multicentric study between November 2009 and May 2017 in the French GETTEC group (Groupe d'Etude des Tumeurs de la Tête Et du Cou [Study Group for Head and Neck Tumors]). We included all TORS procedures for SCC located in the pyriform sinus during this period. We excluded lesions involving the pyriform sinus that had developed from the larynx, oropharynx, or other anatomic sub-sites of the hypopharynx (i.e. pharyngeal posterior wall and retrocricoid region).

Surgical procedure and operative technique

All surgical indications (TORS with or without neck dissection) were

approved by a multidisciplinary board at each center after endoscopic and imaging assessment. During the initial endoscopy, it was systematically verified that the transoral exposure and accessibility to the tumor were sufficient for TORS with a specific mouth retractor for robotic surgery. Indications were small and superficial carcinomas (cT1, cT2 and selected cT3) located in the pyriform sinus. In addition, tumors involving the vertebrae, carotid artery or thyroid cartilage were anatomical and/or oncological contraindications (cT4).

The surgery was performed using the da Vinci® (Intuitive Surgical, Sunnyvale, CA, USA) robotic system and consisted of a full or partial resection of the pyriform sinus (Fig. 1; Video 1), as previously described [8,12]. The surgical field was focused on the three-folds region and anterior angle of the pyriform sinus. An 8.5-mm or 12-mm endoscope at 0° or 30° was used, with two 5-mm or 8-mm EndoWrist® (Intuitive Surgical, Sunnyvale, CA, USA) instruments: forceps (Maryland, De Bakey) and Bovie electrocautery spatula. Dissection was usually performed from top to bottom, including parts of the adjacent anatomical structures medially (epiglottis, arytenoid), if needed, to obtain macroscopic safe margins. Laterally, the inner thyroid perichondrium can be peeled off and is an easily dissected plane. Complementary resections with intraoperative margin analysis were performed in case of any doubt of insufficient margins. The need for a tracheotomy or feeding tube was considered by the surgeon during the procedure, depending on the estimated risk of bleeding or swelling. All the patients received clear, accurate, and comprehensive information regarding the procedure.



Video 1.

Download English Version:

<https://daneshyari.com/en/article/11029135>

Download Persian Version:

<https://daneshyari.com/article/11029135>

[Daneshyari.com](https://daneshyari.com)