



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

## Transoral Laser Microsurgery for T1a glottic cancer - DAHANCA 27

Lyhne, N.; Hald, K.; Kjærgaard, T.; Godballe, C.; Tvedskov, J.; Ulhøj, B.; Overgaard, J.

*Published in:*  
Radiotherapy and Oncology

*DOI (link to publication from Publisher):*  
[10.1016/S0167-8140\(19\)30187-2](https://doi.org/10.1016/S0167-8140(19)30187-2)

*Creative Commons License*  
CC BY-NC-ND 4.0

*Publication date:*  
2019

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*  
Lyhne, N., Hald, K., Kjærgaard, T., Godballe, C., Tvedskov, J., Ulhøj, B., & Overgaard, J. (2019). Transoral Laser Microsurgery for T1a glottic cancer - DAHANCA 27. *Radiotherapy and Oncology*, 132(Suppl. 1), 13. [OC-021]. [https://doi.org/10.1016/S0167-8140\(19\)30187-2](https://doi.org/10.1016/S0167-8140(19)30187-2)

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- ? Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- ? You may not further distribute the material or use it for any profit-making activity or commercial gain
- ? You may freely distribute the URL identifying the publication in the public portal ?

### Take down policy

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

### Purpose or Objective

To evaluate the results of sentinel lymph node biopsy (SLNB) in patients diagnosed with a cT1-T2 oral squamous cell carcinoma and clinically negative (cN0) neck in the Netherlands. An update of this ongoing study will be presented.

### Material and Methods

Retrospective analysis of 328 previously untreated patients, who underwent SLNB between 2007 and 2016. The SLNB procedure consisted of preoperative lymphoscintigraphy, intraoperative detection using gamma probe guidance and postoperative histopathological examination including step-serial sectioning and additional keratin immunohistochemical staining. A positive SLNB was followed by a neck dissection, while patients with a negative SLNB underwent regular follow-up with ultrasound guided fine-needle aspiration cytology on indication.

### Results

The SLN identification rate was 98% (322/328). At least one histopathologically positive SLN was found in 77 of 322 patients (24%). In 15 patients (19%) SLNs contained only isolated tumor cells as largest tumor deposit, in 28 patients (36%) micrometastases and in 34 patients (44%) macrometastases. Median follow-up was 26 months (range 1-104). During follow-up 18 patients developed isolated regional recurrence after a negative SLNB. Therefore, sensitivity of SLNB was 81% and the negative predictive value was 93%. The SLNB sensitivity of patients with a floor of mouth tumor was lower compared with tumors on other locations (67% vs. 84%,  $P=0.11$ ), although the negative predictive value was comparable (92% vs. 93%). SLN-negative patients showed a longer overall survival (78% vs. 73%,  $P<0.001$ ) and disease specific survival (99% vs. 85%,  $P<0.001$ ) compared to SLN-positive patients. Isolated regional disease-free survival did not differ significantly (90% vs 87%,  $P=0.13$ ).

### Conclusion

SLNB is a safe and reliable diagnostic staging technique for detection of occult lymph node metastasis in patients with early stage (cT1-T2N0) oral cavity cancer, but needs improvement in patients with floor of mouth tumors.

### OC-021 Transoral Laser Microsurgery for T1a glottic cancer - DAHANCA 27

N. Lyhne<sup>1</sup>, K. Hald<sup>2</sup>, T. Kjærgaard<sup>3</sup>, C. Godballe<sup>4</sup>, J. Tvedskov<sup>5</sup>, B. Ulhøj<sup>6</sup>, J. Overgaard<sup>7</sup>

<sup>1</sup>Aarhus University Hospital, Department of Experimental Clinical Oncology and Department of Head and Neck Surgery, Aarhus C, Denmark; <sup>2</sup>Aalborg University Hospital, Head and Neck Surgery, aalborg, Denmark; <sup>3</sup>Aarhus University Hospital, Head and Neck Surgery, Aarhus C, Denmark; <sup>4</sup>Odense University Hospital, Head and Neck Surgery, Odense, Denmark; <sup>5</sup>Rigshospitalet, Head and Neck Surgery, København, Denmark; <sup>6</sup>Aarhus University Hospital, Pathology, Aarhus C, Denmark; <sup>7</sup>Aarhus University Hospital, Experimental Clinical Oncology, Aarhus C, Denmark

### Purpose or Objective

The aim of this study was to evaluate whether treatment with transoral laser microsurgery (TLM) is non-inferior compared to accelerated radiotherapy (RT) in the treatment of T1aN0M0 glottic squamous cell carcinoma (SCC).

The DAHANCA (Danish Head and Neck Cancer) database prospectively register all Danish patients diagnosed with a

head and neck cancer. Hence, all patients diagnosed with a T1aN0M0 glottic SCC are registered, allowing for the analyses of potential selection biases into the DAHANCA 27 study cohorts.

### Material and Methods

Since 2003 the Danish national standard treatment for T1aN0M0 glottic SCC has been accelerated RT (66Gy, 33 fractions, 6 fractions/week). In 2012 cordectomy type I-III using TLM was introduced as an experimental treatment. The DAHANCA 27 trial is a comparative non-inferiority phase II study comparing two timely separated national patient cohorts. Patients treated with TLM from September 2012 to April 2016 were included in the TLM cohort, and patients treated with accelerated RT from January 2003 to august 2012 were included in the RT cohort. All patients are followed for five years or until death. The study will evaluate whether disease control after treatment with TLM is non-inferior compared to RT. Laryngectomy rate, survival and voice quality will also be analysed.

### Results

A total of 94 patients were included in the TLM cohort and 550 patients in the RT cohort. With an observation time of 36 month, the proportion of local recurrence was 5.3% (5 patients /94) in the TLM cohort and 4.4% (24 patients/ 550) in the RT cohort. The proportion of successful salvage was 80% (4 patients /5) in the TLM cohort and 71% (17 patients /24) in the RT cohort. The patient in the TLM cohort with non-cured recurrence initially rejected salvage treatment and was month later evaluated incurable.

### Conclusion

Data show non-inferiority in disease control after TLM compared to RT. This study contributes to the international evidence regarding best practice in the treatment of T1aN0M0 glottic cancer due to the large national cohorts. The study outcome will determine whether TLM is implemented as a standard treatment for T1aN0M0 glottic cancer in Denmark.

### OC-022 Unexpected drainage patterns and high accuracy of SLNB in OSCC after previous neck treatment

K. Boeve<sup>1</sup>, I.J. Den Toom<sup>2</sup>, S. Van Weert<sup>3</sup>, E. Bloemena<sup>4</sup>, A.H. Brouwers<sup>5</sup>, O.S. Hoekstra<sup>6</sup>, B. De Keizer<sup>7</sup>, B. Van der Veegt<sup>8</sup>, S. Willems<sup>9</sup>, C.R. Leemans<sup>3</sup>, M.J.H. Witjes<sup>1</sup>, R. De Bree<sup>2</sup>

<sup>1</sup>University Medical Center Groningen, Oral and Maxillofacial Surgery, Groningen, The Netherlands; <sup>2</sup>University Medical Center Utrecht, Head and Neck Surgical Oncology, Utrecht, The Netherlands; <sup>3</sup>Amsterdam UMC, Otolaryngology-Head and Neck Surgery, Amsterdam, The Netherlands; <sup>4</sup>Amsterdam UMC, Pathology, Amsterdam, The Netherlands; <sup>5</sup>University Medical Center Groningen, Nuclear Medicine and Molecular Imaging, Groningen, The Netherlands; <sup>6</sup>Amsterdam UMC, Radiology and Nuclear Medicine, Amsterdam, The Netherlands; <sup>7</sup>University Medical Center Utrecht, Nuclear Medicine, Utrecht, The Netherlands; <sup>8</sup>University Medical Center Groningen, Pathology and Medical Biology, Groningen, The Netherlands; <sup>9</sup>University Medical Center Utrecht, Pathology, Utrecht, The Netherlands

### Purpose or Objective

Patients with oral squamous cell carcinomas (OSCC) suffer a high risk for local recurrences (10-30%) and have an annual risk of 3-4% for developing second primary tumours. In OSCC neck levels at risk for metastasis may be changed due to disruption of lymphatic channels by