



Sentinel lymph node biopsy in clinically node-negative neck patients with squamous cell carcinoma of the oral cavity: a 33-year experience at a teaching hospital

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Abstract

On the treatment of squamous cell carcinomas of the oral cavity, there is still controversy about the most effective approach for clinically node-negative necks. Currently, the treatment of choice is elective neck dissection followed by histopathological examination for staging. However, the sentinel lymph node biopsy technique proved to be a promising alternative, generating less harm to the patient and being less expensive. Further follow-up is still required to achieve conclusive results and for the method to become a treatment of choice. In this study, we analyzed overall and disease-free survival in patients with squamous cell carcinoma in the oral cavity and with clinically node-negative neck who underwent sentinel lymph node biopsy at our hospital from 1980 to 2013; and we related the survival rates to the presence or absence of tumor relapses. For that, a data survey of the medical records was done, whose results are being submitted to statistical analysis, to be further compared to the medical literature data.

Key words:

oral cancer, lymphatic metastases, sentinel node

Introduction

Oral cavity (OC) cancer is the 6th most frequent neoplasm in Brazil, with a 5-year survival rate of 60%¹. The most common histological type is squamous cell carcinoma (SCC), identified in 90% of oral cavity tumors. It metastasizes preferentially to cervical lymph nodes, and its involvement is associated with a poor prognosis.

In patients with clinically negative neck (cN0), the surgical approach recommended in the literature is elective cervical dissection (END) at the time of excision of the primary tumor².

However, there is no evidence of metastasis in 70-80% of the cN0 necks in the post-END histopathological (HP) examination³, evidencing an elevated number of unnecessary treatments and, consequently, an increase in surgical time and surgical morbidity.

Sentinel lymph node (SLN) biopsy is proving to be an equally effective alternative, with lower morbidity compared to END for cN0 neck staging⁴.

In a study at our hospital that corroborates the medical literature, this technique demonstrated a negative predictive value of 95%, an accuracy of 96% to detect positive or negative lymph nodes in comparison to the HP exam, and sensitivity and specificity of 82% and 100% to detect occult metastases⁵.

Despite the promising results, for SLN biopsy to be consolidated as a treatment of choice, a longer follow-up time is still necessary⁶. Therefore, in order to evaluate the long-term efficacy of this method in our hospital, this study was conducted by surveying data from patients with SCC of OC submitted to SLN biopsy, and later comparing with literature data regarding tumor recurrence and overall and disease free survival.

Results and Discussion

A total of 504 records of patients attended at the Otorhinolaryngology Service - Head and Neck of the HC

of Unicamp, from 1980 to 2013, and who were submitted to surgery on tumors in the jugal mucosa, lip, tongue, floor of the mouth, amygdala, palate, retromolar trigone and supraglote, was analyzed. Of these, 80 had cN0 necks and were submitted to SLN biopsy. Patients who did not follow-up in our service for at least 5 years were excluded.

A set of patient-specific data was selected and stored on a spreadsheet in Microsoft Excel (2010) and sent to statistical analysis, in order to identify overall and disease-free survival rates with or without tumor recurrence.

Subsequently, the results will be compared with those of the medical literature. Such variables will be of great relevance to determinate the efficacy of SLN biopsy in our hospital in the long term.

Conclusions

In this 33-year period, we obtained a satisfactory number of patients who were submitted to the SLN technique at our hospital. We still have to wait for statistical analysis so that long-term efficacy can be evaluated.

¹ Noone AM, Howlader N, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ CK (eds). Cancer Statistics Review, 1975-2015 - SEER Statistics. SEER Cancer Statistics Review.

² D'Cruz AK, Vaish R, Kapre N, et al. Elective versus Therapeutic Neck Dissection in Node-Negative Oral Cancer. *N Engl J Med*. 2015;373(6):521-529.

³ Coughlin A, Resto VA. Oral cavity squamous cell carcinoma and the clinically n0 neck: The past, present, and future of sentinel lymph node biopsy. *Curr Oncol Rep*. 2010 Mar;12(2):129-135.

⁴ Schiefke F, Akdemir M, Weber A, Akdemir D, Singer S, Frerich B. Function, postoperative morbidity, and quality of life after cervical sentinel node biopsy and after selective neck dissection. *Head Neck*. 2009 Apr;31(4):503-12.

⁵ Chone CT, Magalhães RS, Etchehebere E, Camargo E, Altemani A, Crespo AN. Predictive value of sentinel node biopsy in head and neck cancer. *Acta Otolaryngol*. 2008 Aug;128(8):920-924.

⁶ Melkane AE, Mamelle G, Wycisk G, et al. Sentinel node biopsy in early oral squamous cell carcinomas: A 10-year experience. *Laryngoscope*. 2012 Aug;122(8):1782-1788.