



# **Elective Neck Dissection in T1T2 Oral Squamous Cell Carcinoma with Proven NO Neck: Essential or Not?**

A Meta-Analysis Study

**Submitted for Partial Fulfillment of Master Degree in Otorhinolaryngology**

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# Dedication

*To*

+ **My Mother** and **My Father.**

+ **My Fiancée** Rawda Alaraby  
who supported me.

+ **My Sisters** Reham, Rasha and  
Randa.

+ **My Brother** Mohammed.

+ **Our Little Kids** Rahaf, Reem  
and Raghad.

*To All of You*

*"Many Thanks"*

✍ **Islam Darahem**

# List of Contents

| Title                      | Page No.                            |
|----------------------------|-------------------------------------|
| List of Tables .....       | <b>Error! Bookmark not defined.</b> |
| List of Figures .....      | <b>Error! Bookmark not defined.</b> |
| List of Abbreviations..... | <b>Error! Bookmark not defined.</b> |
| Introduction .....         | 1                                   |
| Aim of the Work .....      | 10                                  |
| Review of Literature ..... | 12                                  |
| Material and Methods.....  | 27                                  |
| Results.....               | 35                                  |
| Discussion.....            | 49                                  |
| Conclusion .....           | 57                                  |
| Recommendations .....      | 59                                  |
| Summary.....               | 61                                  |
| References .....           | 64                                  |
| Arabic Summary             |                                     |

# List of Tables

| Table No.         | Title                                                    | Page No. |
|-------------------|----------------------------------------------------------|----------|
| <b>Table (1):</b> | Oral Cancer Staging .....                                | 17       |
| <b>Table (2):</b> | Included articles .....                                  | 30       |
| <b>Table (3):</b> | Meta-analysis: relative risk.....                        | 38       |
| <b>Table (4):</b> | Meta-analysis: risk difference.....                      | 42       |
| <b>Table (5):</b> | Meta-analysis: relative risk.....                        | 45       |
| <b>Table (6):</b> | Meta-analysis: risk difference Five-years survival ..... | 47       |

# List of Figures

| Fig. No.            | Title                                                                        | Page No. |
|---------------------|------------------------------------------------------------------------------|----------|
| <b>Figure (1):</b>  | Anatomic sites of the oral cavity .....                                      | 13       |
| <b>Figure (2):</b>  | Cervical lymph node level classification.....                                | 19       |
| <b>Figure (3):</b>  | Cervical lymph node groups removed in various types of neck dissection. .... | 22       |
| <b>Figure (4):</b>  | Forrest plot of Risk Ratio of Recurrence. ....                               | 40       |
| <b>Figure (5):</b>  | Funnel plot of Risk Ratio of Recurrence. ....                                | 41       |
| <b>Figure (6):</b>  | Forrest plot of Risk Difference of recurrence.....                           | 43       |
| <b>Figure (7):</b>  | Funnel plot of Risk Difference of recurrence. ....                           | 44       |
| <b>Figure (8):</b>  | Forrest plot Risk Ratio. ....                                                | 46       |
| <b>Figure (9):</b>  | Funnel plot Risk Ration.....                                                 | 46       |
| <b>Figure (10):</b> | Forrest plot for Risk Difference five-year survival.....                     | 48       |
| <b>Figure (11):</b> | Funnel plot Risk Difference Five-years survival.....                         | 48       |

# List of Abbreviations

| Abb.               | Full term                            |
|--------------------|--------------------------------------|
| <i>END</i> .....   | <i>Elective Neck Dissection</i>      |
| <i>NO</i> .....    | <i>Negative Neck</i>                 |
| <i>OS</i> .....    | <i>Overall Survival</i>              |
| <i>REM</i> .....   | <i>Random Effect Model</i>           |
| <i>SCC</i> .....   | <i>Squamous Cell Carcinoma</i>       |
| <i>SND</i> .....   | <i>Selective Neck Dissection</i>     |
| <i>SOHND</i> ..... | <i>Supraomohyoid Neck Dissection</i> |



# **Elective Neck Dissection in T1T2 Oral Squamous Cell Carcinoma with Proven N0 Neck: Essential or Not?**

**A Meta-analysis Study**

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## **ABSTRACT**

**Background:** Oral squamous cell carcinoma (SCC) is characterized by a high risk of metastases to lymph nodes in the neck. The incidence of occult cervical metastases is relatively high. Surgical resection is the treatment of choice. Our study included patients with early oral cancer (T1/T2) Squamous cell carcinoma with proven N0 Neck.

**Objective:** The aim of the present study was to evaluate the need for elective neck dissection (END) in T1/T2 oral squamous cell carcinoma with proven N0 Neck.

**Patients and Methods:** a meta-analysis for the evaluation of recurrence rate after neck dissection in early oral cancers was conducted. This study included published English medical articles in the last 30 years, concerning early oral SCC with proven N0 Neck. (24)

articles were included with a total number of 2192 of patients and 1619 controls.

**Results:** There was a significant heterogeneity among the included studies. Regarding the regional recurrence rate, neck dissection (ND) was associated with significantly lower risk of recurrence when being compared with observation. Regarding the 5-year survival rate, (10) studies were included with a total number of 1211 of patients and 948 controls. There was no significant heterogeneity among the included. There was a statistically significant difference between ND and Control.

**Conclusion:** Elective neck dissection is better than observation in early oral cancers T1/T2 N0 neck.

**Keywords:** N0 Neck, T1/T2 oral cancers, Squamous Cell Carcinoma, Early oral cancers, cervical neck dissection.



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# Introduction

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## Introduction

**T**he oral cavity is the most predominant location in the head and neck region for primary malignant tumors, and more than 90% cancer consists of squamous cell carcinoma (SCC).<sup>1</sup>

Cancer of the oral cavity is one of the most common malignancies. Squamous cell carcinoma (SCC) is the most common histology, and the main etiologic factors are tobacco and alcohol use.<sup>2</sup>

Carcinoma of the oral tongue has a high propensity for nodal metastasis in the neck. Therefore, some surgeons found a high incidence of subclinical cancer in the neck nodes of patients in whom elective neck dissection was carried out. There is a trend towards elective neck dissection during surgical treatment of tongue carcinoma.<sup>3, 4</sup>

The question of whether to treat electively the neck with clinically negative nodes in patients with stage I and stage II squamous cell carcinoma (SCC) of the oral tongue and floor of the mouth has long been debated among surgeons and radiotherapists. Both elective neck dissection and the “watchful-waiting” policy have their proponents.<sup>8, 9</sup>

The most important prognostic factor of tumor biologic aggressiveness and survival in oral cavity cancer is the presence of cervical metastases. If a regional metastatic disease is

present in a patient's initial evaluation or develops subsequent to a primary therapy, the 5-year survival rate can decrease to lower than 20%.<sup>11-15</sup>

In oral tongue tumors, the incidence of occult cervical metastases is relatively high. Of the patients with T1 and T2 squamous cell carcinoma (SCC) of the oral tongue clinically staged N0. 33 and 37–53%, respectively, have occult metastases at the time of diagnosis. It has been our policy to treat the neck electively when the risk for occult metastasis is estimated to exceed 20%.<sup>21</sup>

The benefit of reduction of regional recurrence by elective neck dissection is challenged by people who believe in the radiological screening of N0 neck.<sup>19</sup>

Elective selective neck dissection is thought to be a diagnostic procedure for staging purpose rather than a therapeutic operation.<sup>20</sup>

Of those people who believe that selective neck dissection is only a staging procedure, intra-operative sampling by frozen section is recommended to guide the intraoperative decision to proceed with modified radical neck dissection.<sup>10</sup>

Oral Squamous cell carcinoma (OSCC) is characterized by a poor prognosis and a low overall survival (OS) rate despite sophisticated surgical and radiotherapy treatment modalities.<sup>21-22</sup>

Surgery has long been the most well-established and accepted approach for the treatment of the majority of Oral SCC.<sup>22</sup>

Despite the successful reduction of regional recurrence by elective neck dissection, it is still controversial for its benefits in the eventual regional control and survival compared with the policy of observation.<sup>23</sup>

This decrease in disease-specific loss rate supports the need to do elective neck dissection in oral cancers with clinical N0 neck. There is still no consensus on the optimal treatment of the neck in oral cavity cancer patients with clinical N0 neck.<sup>26</sup>



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# Aim of the Work

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