waiting: a rise in local morbidity after neck dissection and regional metastases can be easily detected in compliant and well-monitored patients. Moreover, occult metastases are detected in approximately 35% of all N0 patients\(^{0,1}\), so one can conclude that neck dissection would represent an unnecessary surgical procedure in \(\frac{2}{3}\) of all N0 patients.

A meta-analysis of multiple randomized studies done by Weiss et al showed that watchful waiting is preferable to surgery when the probability of occult metastasis is under 20%, a situation which is commonly encountered in T1 or T2 anterior carcinomas of the tongue with a tumor girth of less than 4 mm\(^2\).

One of the most important pro arguments for prophylactic neck dissection is that it can be useful for better neck staging. Andersen et al have shown that 77% of all N0 patients had regional lymph node metastases after histopathological analysis of the excised specimen. 49% of these patients had extracapsular dissemination, which is an important negative prognostic factor\(^1\). This category of patients could benefit much earlier from a number of more aggressive therapeutic strategies (such as external cervical radiotherapy).

**Material and Methods**

This study comprised of 86 patients with T1N0M0 and T2N0M0 carcinomas of the anterior tongue, who were diagnosed between January 2000 and January 2005 and managed by a multidisciplinary team of experts.

The following inclusion criteria were adopted: patients with a newly-diagnosed and histopathologically confirmed carcinoma of the anterior tongue, patients with this diagnosis who had never received treatment, patients who presented with a single malignant tumor at the time of diagnosis, patients without distant metastases at the time of diagnosis, patients without local and/or general contraindications for surgery.

The following categories of patients were excluded from this study; patients who could not be monitored for the whole duration of the study, patients with distant metastases at the time of diagnosis.

The diagnostic protocol for all patients included a thorough clinical examination, panendoscopy for the exclusion of synchronous malignant tumors, cervical and thoracic CT and biopsy of the lingual tumor. Tumors were staged according to the criteria put forth in 1988 by the American Joint Committee on Cancer (AJCC) – Otorhinolaryngology - Head and Neck Surgery. Lymph nodes were staged by corroboration of the data obtained from clinical examination and cervical CT scans.

The therapeutic protocol consisted of: surgery for the primary tumor (partial glossectomies or hemiglossectomies), selective neck dissection (SND) levels I, II and III in some of the N0 patients. We preferred this type of selective neck dissection because most cervical neck metastases from anterior lingual carcinomas can be found at levels Ib and Ia of lymphatic drainage. External beam radiotherapy of the neck was performed in patients with neck metastases proved by histopathological exams of the removed specimen. The total radiation dose was between 60 and 75 Gy.

The research was conducted as a matched case-control study, control to case ratio: 10 to 12. The test-group (SND+), 48 px, was obtained by two steps randomized selection from pool of patients with T1-T2N0 stage carcinoma of the anterior tongue surgically treated with concurrent prophylactic selective neck dissection; the sample size was calculated according to the number and distributions by age and sex of three years previous undergoing SND patients group (maximum acceptable margin of error: 5%; 95% confidence interval, minimum sample size necessary: 20 px). Thus the results could be applied to any patient having similar demographic characteristic as studied sample, being admitted in a clinic with similar standard of medical practice. The subjects of control group (SND-), 38 px, were enrolled from the pool of patients with T1-T2 N0 carcinoma of the anterior tongue surgically treated without prophylactic selective neck dissection, by stratified-random- selection to match the demographic characteristics of the test group. The allocation process was done by computer, from January 2000 to January 2005; the patients were prospectively followed until the final analysis point in 2010. The follow-up time ranged from 24 to 120 months (mean of 96, 4 months for SND+, and 82, 8 months for SND-, respectively).

For both groups results were presented as means and standard deviation for continuous variables and were compared using Student’s t-test; categorical variables were described by absolute or relative frequency and compared by chi-square or Fisher’s exact test. The level of significance was established at \(p < 0.05\). Kaplan-Meier survival analysis was performed at 5 years of follow-up. Differences in time to death between groups were estimated using two-sided log rank test. Global and specific mortality rates were calculated at the end of the follow-up by dividing the number of deaths to the number of the interest subjects group.

**Results**

Eighty six patients with stage T1-T2 N0 malignant tumors of the anterior tongue participated in this study, 69 (80.23%) of whom were male and 17 (19.76%) of whom were female, aged between 35 and 73 years. The patients were enrolled in two comparable (\(p > 0.05\)) by age and sex distribution groups (Table 1).

**Table 1:** Descriptive statistics regarding age, for the two groups that underwent (SND+) or not (SND-) selective neck dissection (in years).

<table>
<thead>
<tr>
<th>Selective neck dissection</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (SND+)</td>
<td>54.23</td>
<td>7.066</td>
<td>38</td>
<td>71</td>
</tr>
<tr>
<td>No (SND-)</td>
<td>53.53</td>
<td>8.016</td>
<td>35</td>
<td>73</td>
</tr>
</tbody>
</table>

SND+: selective neck dissection group, SND-: watchful waiting group (clinical observation of the neck).