

## THE RESULTS OF CANCER TREATMENT OF THE ORAL CAVITY TUMORS IN THE REPUBLIC OF UZBEKISTAN

**Mamedov U. S.\*<sup>1</sup> and Polatova D. Sh.<sup>2</sup>**

<sup>1</sup>The Republic of Uzbekistan. city of Bukhara, Department of Oncology and Radiology Diagnostics, Bukhara Medical Institute.

<sup>2</sup>Republican Specialized Scientific and Practical Medical Center of Oncology and Radiology of the Ministry of Health of the Republic of Uzbekistan.

**\*Corresponding Author: Mamedov U. S.**

The Republic of Uzbekistan. city of Bukhara, Department of Oncology and Radiology Diagnostics, Bukhara Medical Institute.

Article Received on 27/05/2019

Article Revised on 17/06/2019

Article Accepted on 07/07/2019

### ABSTRACT

In cancer of the oral mucosa and oropharynx, lymphogenous metastases occur in 30-80% of cases.<sup>[1,2]</sup> According to the authors, neck metastases in cancer of the anterior half of the tongue are diagnosed in 35-45%, and in cancer of the posterior parts of the tongue in 70-75% of cases. With cancer of the movable part of the tongue - in 46.9%, with cancer of the tongue root - in 68.5% of cases. The frequency of regional metastasis depends not only on the localization of the primary tumor, but also on the histological differentiation, tumor size, prevalence in adjacent anatomical areas and formation.<sup>[5]</sup>

For the treatment of regional metastases, traditional methods of treatment, such as the chemotherapeutic method, radiation and surgical methods, and their combinations are reasonably applied. The problem of treating locally advanced regional metastasis of cancer around the neck remains relevant today, since the only hope for a patient is the surgical removal of tumor nodules.<sup>[3]</sup> The results of radiation treatment only of such patients remain unsatisfactory.<sup>[3]</sup> Until now, the surgical method of treatment of regional metastases, both independently and in terms of the combined method, remains one of the leading ones.<sup>[6, 7,8,9]</sup> However, the use of this method is limited in regional metastases corresponding to the symbols N2 and N3.

In 2010, the number of newly diagnosed patients with cancer of the lip in our Republic was 104 patients, of them with stages 1 and 2 of the disease amounted to 85 (81.7%), stage 3 18 (17.3%), stage 4 (1.0%). At the end of 2010, 1214 patients with lip cancer were registered with oncological institutions of the Republic. The overall incidence in the Republic of Uzbekistan in 2010 was 0.4 per 100 thousand population. Mortality from cancer of the lips amounted to 2010 - 0.1%. 5 year survival in this pathology was 57.2%. In 2010, the number of newly diagnosed patients with cancer of the oral cavity and pharynx in our Republic was 660 patients, of them with 1 and 2 stages of the disease amounted to 367 (55.6%), stage 3 244 (37.0%), stage 4 54 (8.2%). At the end of 2010, in the oncological institutions of the Republic, 3,964 patients with lip cancer were registered. The overall incidence in the Republic of Uzbekistan in 2010 was 2.3 per 100 thousand population. Mortality from

cancer of the oral cavity and pharynx amounted to 2010 - 1.3%. The 5 year survival rate for this pathology was 44.5%.<sup>[4]</sup>

**OBJECTIVE:** To conduct a comparative analysis of oral cancer treatment methods with a comparison of their long-term results.

### MATERIALS AND METHODS

Our study is based on the results of examination and treatment of 160 patients with histologically confirmed oral cavity tumors (OCT), of which 63 patients were undergoing a prospective study (main group), 97 retrospective (control group).

**Table 1: The distribution of patients in stages of the disease.**

Stage	Oral cancer n=160	
	Basic	Control
T1 N2M0	3 (1,9%)	3 (1,9%)
T1 N3M0	4 (3,1%)	8 (5,0%)
T2N1M0	3 (1,9%)	5 (3,1%)
T2 N2M0	6 (3,8%)	11 (6,9%)
T2 N3M0	12 (8,1%)	14 (8,8%)
T3N1M0	4 (2,5%)	13 (8,1%)
T3N2M0	9 (5,6%)	10 (6,3%)
T3N3M0	10 (6,9%)	12 (7,5%)
T4 N1M0	1 (0,6%)	5 (3,1%)
T4 N2M0	3 (1,9%)	7 (4,3%)
T4 N3M0	8 (5,0%)	9 (5,6%)
Total	63 (39,4%)	97 (60,6%)

Before the start of treatment, all patients underwent a complex of diagnostic measures. All patients were diagnosed with morphological methods. Because of the availability of tumors of the oral mucosa, in all cases the diagnosis was confirmed with a single or double sampling biopsy.

All patients with malignant neoplasms of the oral mucosa are represented by squamous cell carcinoma. Its characteristic feature is the tendency to lymphogenous metastasis to superficial and deep lymph nodes of the neck. The highest percentage of regional metastasis ( $\approx 40\%$ ) is noted for cancer of the tongue.

**Table 2: Histological structure of oral cavity tumors included in the study.**

Histological structure of the tumor	Number of cases	
	Basic	Contol
Highly differentiated squamous carcinoma	24 (15%)	39 (24,4%)
Moderately differentiated squamous carcinoma	23 (14,4%)	30 (18,8%)
Undifferentiated squamous carcinoma	16 (10%)	28 (17,5%)
Total n = 160	n = 63 (39,4%)	n = 97 (60,6%)

The data presented in Table 2 show that 39.4% of patients had highly differentiated squamous cell carcinoma, 33.1% moderately differentiated squamous cell carcinoma and 27.5% of cases were diagnosed with a low differentiated form of squamous carcinoma.

The choice of treatment tactics, the sequence of special treatment methods, as mentioned above, depends on the location and size of the primary tumor.

Patients were divided according to the method of treatment into the following groups:

1 group of patients underwent a course of 1 stage - chemoradiation therapy, 2 - stage - surgical treatment (52 patients, 29 - control group);

Group 2 patients - Stage 1 - surgical treatment, Stage 2 - chemoradiotherapy (57 patients, 36 patients from the control group);

**3 group 1 - stage radiation treatment, 2 - stage - surgical treatment (51 patients, 32 patients from the control group) (Table 3.).**

Treatment methods	Tongue	Mouth floor	Lower jaw	Cheek
ChRT +OP n=52	19 (36,5%)	12 (28,6%)	13 (36,1%)	8 (26,7%)
OP+ ChRT n=57	18 (34,6%)	15 (35,7%)	10 (27,8%)	14 (46,6%)
OP+ RT n=51	15 (28,8%)	15 (35,7%)	13 (36,1%)	8 (26,7%)
Total n=160	52 (32,5%)	42 (26,3%)	36 (22,5%)	30 (18,8%)

As can be seen from the data in the table, patients were evenly divided into treatment groups. In the first treatment group of 19 patients with cancer of the tongue, 11 patients were from the main group. Tumors of the floor of the mouth 4/12, swelling of the lower jaw 5/13, swelling of the cheek 3/5. In the second treatment group, patients of the main group were distributed 6/18, 8/15, 4/10 3/14, respectively. In the third treatment group 2/15, 8/15, 7/13 and 2/8.

Surgical treatment followed by radiotherapy was performed more for tumors of the floor of the mouth and for tumors of the lower jaw. During the distribution, all patients received combined or complex treatment.

Considering the purpose of our study, the development of an extended lymphadenectomy technique with resection of the neurovascular structures of the neck, we decided in more detail to dwell on the surgical methods for treating regional metastasis of tumors of this localization used in this work.

In the group of patients undergoing surgical treatment after neoadjuvant chemoradiotherapy, simultaneous removal of the primary focus with lymph node dissection was performed in all patients of the main and control groups.

In the second group of the study of 57 patients in 32 cases, simultaneous surgery was performed on the primary site and in the area of the regional lymphatic collector, in 25 cases only the cervical lymphadenectomy followed by CRT. Of the 32 patients with 11 patients with cancer of the tongue, 4 patients with cancer of the floor of the mouth and 7 patients with cancer of the lower jaw and 10 patients with cheek tumors.

In the third group of studies of 51 patients, 29 underwent simultaneous surgery, 5 of them for cancer of the tongue, 11 patients for cancer of the floor of the mouth, 9 for cancer of the lower jaw, and 4 cases of cancer of the cheek. In other cases, surgery is limited to dissection of regional lymph nodes, followed by radiation therapy.

Removal of the primary focus was performed in 113 patients, 48 of them in the main group and 65 in the control group (Table 4).

**Table 4: Surgical treatment of primary lesion of patients with oral cavity tumors**

Regional resection of the lower jaw	19 (16,8%)
Segmental resection of the lower jaw	10 (8,8%)
Hemoglossectomy	18 (15,9%)
Subtotal glossectomy	10 (8,8%)
Total glossectomy	7 (6,2%)
Tumor removal	49 (43,4%)
Total	113 (70,6%)

**Table 5: The immediate results of conservative treatment of patients with oral cavity tumors in the main and control groups.**

Treatment method	Study group	Full effect	Partial effect	No effect	Progression
ChRT+operation	Basic group n=23	16 (69,6%)	5 (21,7%)	2 (8,9%)	-
	Control group n=29	20 (68,9%)	7 (24,1%)	2 (6,9%)	
RT+operation	Basic group n=19	13 (68,4%)	4 (21,1%)	2 (10,5%)	-
	Control group n=32	21 (65,6%)	8 (25%)	3 (9,4%)	
Total n=103		70(67,9%)	24(23,3%)	9(8,7%)	-

Due to the use of the same scheme and tactics of chemoradiation treatment in the main and control group, the results of treatment were practically the same. With radiation therapy as an independent method, the results were slightly worse ( $p = 0.014$ ). T1-2 indicator in all (100%) cases was removed before conservative measures. With T3 in 29/39 patients (74.4%) and with T4, the full effect was recorded in 13/21 (61.9%) cases. In one case

with T4, treatment was ineffective. The progression of the process was not observed in any case (Table 5).

When analyzing the results of chemo - radiotherapy in 103 patients with metastases to regional lymph nodes after radiation or chemoradiation therapy, dependence on the prevalence of the metastatic process (N) and the effectiveness of treatment was not established (Table 6.).

**Table 6: The effectiveness of chemoradiation and radiation therapy, depending on the extent of regional metastasis.**

Prevalence of the Process	Full effect	Partial effect	No effect
N1n=21	14 (66, 7%)	5 (23,8%)	2 (9,5%)
N2 n=29	19 (65,5%)	7 (24,1%)	3 (10,3%)
N3 n=53	35 (66,0%)	12 (22,6%)	6 (11,3%)
Total n=103	68 (66,0%)	24 (23,3%)	11 (10,7%)

Of the 113 patients who underwent removal of the primary tumor site, intraoperative complication was not observed in 8 cases, such as bleeding 5, mediastinal emphysema 2, damage to the thoracic lymphatic duct 1 case.

Different variants of the dissection of the cervical lymph nodes were performed in all 160 patients. In 113 cases, the cervical lymph node dissection was performed simultaneously with the removal of the primary tumor lesion. Radical cervical lymph node dissection was performed in 97 patients with multiple displaced and single partially displaced, soldered to the internal jugular vein and sternocleidomastoid muscle metastases (see operation volume in Table 6).

In 63 cases of the main group with multiple displaced, and single partially displaced metastases soldered to the

internal jugular vein and the sternocleidomastoid muscle metastases performed a modified lymph node dissection.

In the postoperative period, after removal of the primary focus, poor wound healing was observed in 17 cases. Of these, 11 patients underwent simultaneous surgery in the primary site and regional zone of the lymph nodes.

Clinical observation of cured patients was carried out in accordance with generally accepted rules: first year - every 3 months; second year - every 4 months; from the third to the fifth year - every 6 months; after five years - every 12 months.

The frequency of ipsilateral and general recurrences in patients with viable tumor cells in cervical lymph node biopsies was three times higher (40%, 14/35) than in

patients with complete remission after conservative treatment (13.2%, 9/68). There was a significant difference when comparing these two groups for specific causes of death ( $p = 0.014$ ). Mortality due to further progression of the disease was 38.2% (26/68) in patients with full effect compared with patients having partial effect or without effect 68.6% (24/35).

**Table 7: The results of 5 - year survival of patients with oral cavity tumors in patients of the basic and control groups, depending on the type of lymph node dissection.**

Type of neck dissection	2 year survival rate	5 year survival rate
Radical neck dissection n=97	44 (69,8%)	30 (47,6%)
Modified cervical lymph node dissection n=63	67 (69,1%)	32 (32,9%)
Total n=160	111(69,4%)	62(38,8%)

## CONCLUSIONS

Optimal indicators as foreseen, it was noted in patients developed by us type of (ШЛД), which is associated with low invasiveness of this operation and the ability to remove lymph nodes from the deeper layers.

Patients with tumors of the tongue and floor of the mouth had a worse outcome with disease-specific survival of 57.7% (30/52) and 61.9% (26/42) compared with 72.7% (48/66) of patients with tumors All other localizations. Optimal indicators, as it was foreseen, were observed in patients with the type of (ШЛД) we developed, which is associated with the low traumatic nature of this operation and the ability to remove lymph nodes from deeper layers.

Overall survival was 57.5% (92/160) and disease-specific survival was 71.25% (46 deaths from progression / 160). In total, there was a marked difference in disease-specific survival between N1 patients (61.3%, 19/31) and patients with N2-3 (56.6%, 73/129) ( $p = 0.91$ ). At the same time, there were no differences between the groups when comparing only patients with the full effect ( $p = 0.95$ ).

## REFERENCES

1. Brzezovsky V.Zh., Lyubayev V.L. Treatment and prevention of regional metastases of cancer of the oral mucosa and oropharynx. - Current issues of diagnosis and treatment of malignant tumors of the head and neck. - M, 1991; 42-43.
2. Matiakin E.G. Clinical aspects of regional metastasis of tongue and larynx. - Diss. dr. ... honey sciences. - M, 1988; 295.
3. Tkachev S.I., Romanov I.S. Use of local hyperthermia in a combined treatment plan in patients with inoperable regional metastasis of head and neck cancer. - Mater. Oncologists of the CIS countries, December 3-6, Moscow, 1996; Part I. - P. 279.
4. Bulletin RCRC them. N.N. Blokhin RAMS, 2011; 22(3).
5. Ferlito A, Corry J, Silver CE, Shaha AR, Thomas Robbins K, Rinaldo A. Planned neck dissection for patients with complete response to chemoradiotherapy: a concept approaching obsolescence. *HeadNeck*2010; 32: 253-261.
6. Cooper JS, Fu K, Marks J, Silverman S. *Int J Radiat Oncol Biol Phys*, 1995; 31: 1141-1164.
7. McNeely ML, Parliament MB, Seikaly Het al. Randomized controlled trial. *Cancer*, 2008; 113: 214-222.
8. Nouraei SA, Upile T, Al-YaghchiCet al. Role of planned postchemoradiotherapy Laryngoscope, 2008; 118: 797-803.
9. Hammerlid E, Taft C. Survivors: A comparison with the general population rate. *Br J Cancer*, 2001; 84: 149-156.