



Contents lists available at ScienceDirect

## Journal of Cranio-Maxillo-Facial Surgery

journal homepage: [www.jcmfs.com](http://www.jcmfs.com)

## Metastatic solid tumors to the jaw and oral soft tissue: A retrospective clinical analysis of 44 patients from a single institution



Adepitan A. Owosho<sup>a</sup>, Bin Xu<sup>b</sup>, Arvin Kadempour<sup>c</sup>, SaeHee K. Yom<sup>c</sup>, Joseph Randazzo<sup>c</sup>, Ronald A. Ghossein<sup>d</sup>, Joseph M. Huryn<sup>c</sup>, Cherry L. Estilo<sup>c,\*</sup>

<sup>a</sup> Department of Surgery, Memorial Sloan Kettering Cancer Center, New York, USA

<sup>b</sup> Head and Neck/Endocrine Pathology, Department of Pathology, Memorial Sloan Kettering Cancer Center, New York, USA

<sup>c</sup> Dental Service, Department of Surgery, Memorial Sloan Kettering Cancer Center, New York, USA

<sup>d</sup> Department of Pathology, Memorial Sloan Kettering Cancer Center, New York, USA

### ARTICLE INFO

#### Article history:

Paper received 8 February 2016

Accepted 9 May 2016

Available online 15 May 2016

#### Keywords:

Metastatic tumor

Metastases

Jaw

Oral soft tissue

Mandible

Gingiva

### ABSTRACT

**Purpose:** Metastatic solid tumors to the oral cavity are rare, frequently indicative of an end-stage disease process, and associated with poor survival rates. We performed a 20-year retrospective clinical analysis of our institution's cases of solid metastases to the oral cavity, and investigated these patients' clinical outcomes.

**Material and methods:** A retrospective study of patients with metastatic solid tumors to the oral cavity over a 20-year period (October 1996 to September 2015) was conducted at Memorial Sloan Kettering Cancer Center. Patients were selected if they had a histopathologically confirmed diagnosis. Demographic, pathologic, and clinical information were reviewed to identify patient outcomes.

**Results:** A total of 44 patients with metastatic non-melanocytic non-hematopoietic tumor to the oral cavity were identified: 24 males and 20 females (39 adults and 5 children) with a mean age of 54.3 years. In all, 24 cases involved the jaw and 20 cases involved the oral soft tissue. Eight patients (18.2%) had oral cavity metastases as the first indication of an occult malignancy. In adult patients, the common primary sites were the lungs (n = 9, 20%), kidney (n = 7, 16%), breast (n = 5, 11%), and colon (n = 4, 9%); and in pediatric patients the adrenal gland (3/5) was the most common site. Of the adult patients, 33 (84.6%) died of disease. From the time of metastasis diagnosis, patients with jaw metastases had a median and mean survival of 12 months and 27.7 months, respectively. In comparison, patients with oral soft tissue metastases had a median survival time of 5 months, and mean of 8 months. One pediatric patient (20%) died of disease 8 months after metastasis diagnosis.

**Conclusion:** Metastatic solid tumors to the oral cavity can be the first sign of a malignancy. Pediatric patients with oral cavity metastases have a better prognosis compared to adult patients. In this series, adults with oral soft tissue involvement had shorter survival times compared to patients with jaw involvement.

© 2016 European Association for Cranio-Maxillo-Facial Surgery. Published by Elsevier Ltd. All rights reserved.

### 1. Introduction

Metastatic solid tumors to the oral cavity are rare. Involvement of the jaw can be considered more common than involvement of oral soft tissue (Hirshberg et al., 2008; Summerlin, 1994). Metastases to the oral cavity can arise from any part of the body,

but tumors of epithelial origin (carcinoma) occur more frequently (D'Silva et al., 2006; Hirshberg et al., 2008; Bodner et al., 2006; Antunes and Antunes, 2008). The common primary sites of metastatic oral cavity tumors are the breast in females and lung in males (Hirshberg et al., 2008; Allon et al., 2014). Metastatic dissemination to the oral cavity is highly indicative of an end-stage disease process, with reported survival time after oral metastases diagnosis at 3.7–8.25 months (van der Waal et al., 2003; Hirshberg et al., 2008; Murillo et al., 2013; Allon et al., 2014). Most patients who present with metastases to the oral

\* Corresponding author. Dental Service, Department of Surgery, Memorial Sloan Kettering Cancer Center, New York, NY 10065, USA. Tel.: +1 212 639 7644.

E-mail address: [estiloc@mskcc.org](mailto:estiloc@mskcc.org) (C.L. Estilo).

cavity have already been diagnosed with primary tumors; however, in 22%–25% of cases, oral cavity metastasis is the first manifestation of the disease (Hirshberg et al., 2008; Zachariades, 1989).

Metastatic disease involving the mandible, particularly the posterior region, is more common than the maxilla, whereas the gingiva is the most frequently involved oral soft tissue (Hirshberg et al., 2008; Hirshberg et al., 1993, 1994; Allon et al., 2014; Zachariades, 1989). The clinical presentation of metastatic tumors to the oral cavity range from jaw pain, exophytic lesion (either as a swelling or mass that may be ulcerated), paresthesia, and numbness, as well as misleading presentations such as toothache, dentoalveolar swelling, and loose tooth. The latter signs and symptoms can lead clinicians to consider an odontogenic disease process (D'Silva et al., 2006; Murillo et al., 2013; McClure et al., 2013).

Due to the rarity of metastatic tumors to the oral cavity and their often innocuous presentation, clinical and histopathologic diagnosis may be challenging (D'Silva et al., 2006; Hirshberg et al., 2014; Sauerborn et al., 2011). In this retrospective study, we describe a series of patients with metastatic tumors to the oral cavity and investigate the clinical outcomes of these patients.

## 2. Material and methods

The study was approved by the Memorial Sloan Kettering Cancer Center (MSKCC) Institutional Review Board. A retrospective patient record review during a 20-year period (October 1996 to September 2015) was conducted for the identification of patients with metastatic tumors to the oral cavity. Patients with histopathologically confirmed diagnosis were included in the study. The following keywords were searched from our pathology electronic records: metastatic; jaw; jaw bone; mandible; maxilla; gingiva; gingival mucosa; alveolar mucosa; buccal mucosa; cheek mucosa; labial mucosa; palate; palatal mucosa; tongue; floor of mouth. Patients with melanoma, myeloma, lymphoma, and leukemia involving the jaw were excluded from this study. Patients with a clinical diagnosis of a jaw metastasis without histopathologic diagnosis were also excluded. The following clinical information was reviewed: sex, age at diagnosis, site of primary tumor, site of metastatic disease, vital status, histopathologic diagnosis, time duration from oral cavity metastasis diagnosis to patient's death, clinical presentation of metastases, list of positive immunohistochemical (IHC) stains in the biopsied specimen from the oral cavity, and therapy instituted.

**Table 1**  
Demographic data of patients with metastatic solid tumors to the oral cavity.

Case no.	Sex	Age (y)	Primary site	Metastatic site	Vital status (DOD/alive)
1	F	50	Uterus	Posterior mandible	DOD
2	M	69	Lung	Posterior mandible	DOD
3	M	70	Lung	Posterior mandible	DOD
4	F	52	Lung	Anterior maxilla	DOD
5	M	58	Lung	Posterior mandible	DOD
6	M	69	Pleura (lung)	Tongue	DOD
7	F	54	Lung	Buccal mucosa	DOD
8	M	62	Lung	Maxillary gingiva and palatal mucosa	DOD
9	F	65	Lung	Mandibular and maxillary gingiva	DOD
10	M	40	Lung	Palatal mucosa	DOD
11	F	65	Lung	Maxillary gingiva	DOD
12	F	76	Breast	Mandibular ramus	DOD
13	F	68	Breast	Posterior mandible	Alive
14	F	73	Breast	Mandibular ramus	DOD
15	F	64	Breast	Mandibular gingiva	Alive
16	F	69	Breast	Tongue	DOD
17	M	79	Prostate	Posterior mandible	DOD
18	M	63	Prostate	Posterior mandible	DOD
19	M	71	Liver	Posterior mandible	DOD
20	M	85	Pancreaticobiliary	Posterior mandible	DOD
21	F	77	Colon	Posterior mandible	DOD
22	M	74	Colorectal	Mandibular ramus	DOD
23	F	43	Colon	Anterior maxilla	DOD
24	M	59	Colon	Mandibular gingiva	Alive
25	F	64	Ureter (renal pelvis)	Posterior mandible	DOD
26	F	61	Kidney	Anterior mandible	DOD
27	F	63	Kidney	Anterior-posterior mandible	DOD
28	F	18	Kidney	Mandibular gingiva	Alive
29	M	75	Kidney	Buccal mucosa	DOD
30	M	70	Kidney	Buccal mucosa	DOD
31	M	59	Kidney	Mandibular gingiva	DOD
32	M	66	Kidney	Buccal mucosa	Alive
33	M	21	Adrenal gland	Posterior mandible	Alive
34	M	5	Eye	Posterior mandible	DOD
35	F	9	Adrenal gland	Mandibular ramus	Alive
36	F	1.75	Adrenal gland	Posterior mandible	Alive
37	M	0.6	Adrenal gland	Posterior mandible	Alive
38	F	54	Thyroid	Mandibular gingiva	DOD
39	M	48	Buttock	Mandibular gingiva and tongue	DOD
40	M	35	Testis	Maxillary gingiva	DOD
41	M	60	Stomach	Maxillary gingiva	DOD
42	M	76	Submandibular gland	Palatal mucosa	DOD
43	M	44	Unknown	Buccal mucosa	DOD
44	F	3	Mediastinum	Anterior mandible	Alive

Abbreviations: DOD, dead of disease; F, female; M, male.

Download English Version:

<https://daneshyari.com/en/article/3142821>

Download Persian Version:

<https://daneshyari.com/article/3142821>

[Daneshyari.com](https://daneshyari.com)