Review Article

Metastasis to the oral soft tissues: A review of 412 cases

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Abstract

The present review article analyzes the characteristics of metastases to the oral soft tissues from 1937 to 2015. An extensive literature search was performed. All variables such as age, gender, and primary and secondary tumor sites were analyzed. Metastases to the major salivary glands were not included in this review. In general, there were 412 metastatic lesions developed in the oral soft tissues. The male-to-female ratio was approximately 1.8:1. The mean age of the patients at diagnosis was 58. The lung was the most common primary site and the gingiva was the most common metastatic site. The greater part of the histological examination yielded adenocarcinoma. The diagnosis of a metastatic lesion in the oral cavity is a challenge to the clinicians due to the lack of pathognomonic signs and symptoms. Oral metastases usually occur in the advanced stages of cancers, and the interval between appearance and death is usually short. The oral soft tissue metastasis can be easily recognized compared to the metastasis of jawbones. Early detection of oral lesions is important in the case of being the first sign of a malignancy in other parts of body.

Key words: *Metastasis, mouth, soft tissue*

INTRODUCTION

Metastasis to the oral cavity is a rare event and constitutes 1% of all oral cavity malignancies.[1] Oral cavity metastases are mostly observed in the jaws compared to the soft tissues, particularly in the posterior area of the mandible.[2-4] Only 33% of oral metastatic lesions are seated in the soft tissues.[3] A specific site for metastasis is the post-extraction site.[5] Clinically, early gingival metastases are polypoid or exophytic, highly vascularized, and resemble hyperplastic or reactive lesions such as pyogenic granuloma, giant cell granuloma, and peripheral fibroma.[6,7] In other locations, especially on the tongue, they appear as submucosal masses.[3] Metastasis to the oral cavity is one of the complications of systemic cancer and usually develops in the end stage of a cancer lesion.[8] Oral cavity metastases are an increasingly critical cause of morbidity and mortality in cancer patients. Thus, oral cavity metastasis presents a therapeutic challenge and is a physically debilitating event for the patient. Early diagnosis and treatment of oral cavity metastasis may enhance the quality of the patient's life and prolong survival. Dentists play a crucial role in the diagnosis and management of cancer patients, especially in those patients in whom oral metastasis is the first sign of undiscovered cancer in other parts of the body.[8] The purpose of the present article was to review the

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characteristics of the oral soft tissues metastases to analyze all available information. A relevant English Literature search in PubMed, Scopus, and Google Scholar was performed. The keywords "oral cavity," "soft tissue," and "metastasis" were searched in the title/abstract of publications limited to 1930 to 2015. Only the relevant publications were included. All variables such as age, gender, and primary and secondary tumor sites were analyzed. In some of reports, especially in case series, most of the variable assessments were incomplete.

RESULTS

In general, there were 412 metastatic lesions that developed in the oral soft tissues. Lung cancers mostly metastasized to the gingiva with 46 cases (11.1%), followed by the tonsil and tongue with 11 cases each (2.6%). Majority of liver cancers metastasized to the gingiva in 26 cases (72.2%) of all metastatic lesions from liver cancer. Breast cancers also mostly metastasized to the gingiva in 20 cases (60.6%) of all metastatic lesions from breast cancer. However, kidney cancers mostly metastasized to the tongue (19 cases of all metastatic lesions from kidney cancer; 36.5%). Most of the gingival metastases were detected in posterior areas. The anterior gingiva was only involved in 16 cases (3.9%). The presence of teeth was the most frequent finding in gingival metastases. Metastasis in edentulous cases was found in only 7 cases (1.7%). In 14 cases (3.4%), oral metastasis developed in a tooth extraction site. Metastatic tumors were distributed equally in the right and left sides. In 19 cases (4.6%), metastatic tumors developed in the anterior region and in 11 cases (2.6%) developed bilaterally. In 62 cases (15%), the metastatic lesion developed in the contralateral side of the primary tumor. In 69 cases (16.7%), underlying bone tissue was also involved. The greater part of the histological examination yielded adenocarcinoma (n = 93; 22.5%), followed by variants of renal carcinoma (n = 54; 13.2%), hepatocellular carcinoma (n = 41; 10%), and in lower numbers, malignant melanoma (n = 21; 5%) and squamous cell carcinoma (n = 18; 4.4%). There were 5 cases of osteosarcoma, 4 cases of chondrosarcoma, and 3 cases of Ewing's sarcoma. Most reported cases were from the United States of America with 63 cases (15.2%), followed by Korea and Spain with 45 (11%) and 32 cases (7.8%), respectively. The results of the literature search of cases of oral soft tissue metastases are summarized in Tables 1 and 2. Table 3 shows the comparison of the results of this review with those of the previous reviews.

DISCUSSION

The incidence of metastasis is rising with the increase in the survival of cancer patients. At present, cancer patients live longer due to advances in cancer diagnosis and management.[259] The majority of head and neck cancer cases are related to tobacco use and heavy alcohol consumption. Other possible risk factors include viral infections, infection with *Candida* species, and a number of bacterial species.[260] The oral cavity is an uncommon site for metastasis.[5] The criteria for the diagnosis of a metastatic tumor are as follows; first, the primary tumor must be histologically verified. Second, the metastatic tumor and primary tumor must be of the same histological type. Finally, the possibility of direct local spread from the primary tumor must be excluded.[261] Metastasis to distant organs is not a random event, and is regulated by a site-specific process.[262] For example, breast and prostate cancers usually metastasize to the jaw bones, however, lung carcinomas commonly metastasize to the oral soft tissues.[263,264] There are a few reports of oral metastases from the tumors with high mortality rate such as pancreatic cancer probably due to patient's death before the appearance of a metastatic lesion. In this review, there were only 2 cases of metastatic pancreatic cancer. In the cases of bone involvement, it is not clear whether the cancer cells directly metastasize to the gingiva, or a bone metastasis subsequently extends into the gingiva, or the patient had both gingival and bone metastases;[265] however, it is suggested that the cancers first metastasize to the gingiva, and then cancer cells invade to the underlying bone. In the current review, the involvement of both gingiva and bone was found in 69 cases. The gingiva is the most common site for metastasis; inflammatory reaction such as gingivitis or periodontitis could be critical factors to facilitate metastasis. Some degree of inflammation in the gingival tissue can be found in most people. In chronically inflamed gingiva, the capillary network constantly proliferates and develops fragmented basement membranes.[266] The role of inflammation in the attraction of metastatic cells has been suggested previously, and it might be the reason for a higher frequency of metastases in the attached gingiva. On the other hand, there are some reports of metastases to the post-extraction site, which indicate the role of local factors in the extraction or wound area that may attract circulating tumor cells. Tooth extraction may serve as a promoting factor in metastasis as it creates a microenvironment rich in growth factors. It is suggested that tooth extraction site is a microenvironment rich with local growth factors which favor the growth of metastatic cells.[267] The tongue is also a highly

Table 1: A summary of oral metastasis in men

Primary site (No. of patients)	Age range (years)	The time intervals from primary tumor detection to diagnosis of an oral metastasis	Range of time duration of development of a metastatic lesion	The time intervals between diagnosis of primary tumor to death	References
Lung (61)	14-84	Same time*-90 months	1 week-5 months	1 week-2 years	(4, 9-43)
Kidney (43)	35-78	1 month-19 years	1 week-3 years	3 weeks -31 months	(4, 22, 28, 31, 34, 44-73)
Liver (33)	52-74	1 month-100 months	2 weeks-4 months	1 month-13 months	(22, 28, 31, 74-89)
Skin (16)	21-86	8 months-12 years	3 weeks-2 months	4 months-10.2 years	(90-100)
Unknown (12)	2-72	1 month-5 months	1 month	7months-58 months	(27, 29, 41)
Prostate (12)	53-85	1 month-7 years	3 weeks-2 months	1 month-1 year	(22, 29, 54, 101-105)
Stomach (10)	42-72	Same time-1 year	2 weeks-3 months	1 month-2 years	(7, 22, 106-112)
Colon (9)	42-73	1 month-5.3 years	3 weeks-2 months	1 month-9 months	(19, 22, 30, 113-118)
Esophagus (8)	30-67	1 month-5 months	1 week -5 months	Few days-6 weeks	(19, 41, 119-124)
Rectum (6)	45-80	2 years-5 years	1 week	5 months-14 months	(41, 125-129)
Urinary bladder (5)	56-75	2 years	2-4 months	1 month	(54, 130-132)
Testes (4)	25-63	Same time-2 years	3 weeks-3 months	7 months	(133-136)
Bronchus (4)	25-66	5 months	1 week-6 months	3 weeks-2 months	(137-140)
Adrenal glands (3)	2-65	4 months	3 weeks-2 months	3 weeks-1 year	(141-143)
Thyroid (3)	65-83	28.5 months-104 months	4 months	2 months-12 months	(34, 128, 144)
Leg (3)	55-60	2 months-5.3 years	1 month-6 months	9 months	(30, 145, 146)
Forearm (2)	14,69	12 months- 18 months	2 months	6 months	(147, 148)
Parotid (2)	36,67	11 months,-21 years	5 months	1 month	(149, 150)
Pleural cavity (2)	65,75	1 years-2 years	6 weeks-2 months	3 months	(151, 152)
Urethra (2)	61	No data	No data	No data	(101)
Femur (2)	22,49	14 months-2 years	6 months	4 months	(34, 153)
Pancreas (2)	61,71	No data	No data	19 months	(28, 34)
Tibia (2)	17,18	6 months-1 year	2 weeks-2 months	1 week	(148, 154)
Breast (2)	60,86	2 years	2-4 month	4 months-1 year	(155, 156)
Mediastinum (1)	23	3 years	3 months	Alive at the time of report	(157)
Colorectal (1)	71	1 year	1 month	1 month	(158)
Brain (1)	8	18 months	No data	Alive at the time of report	(159)
Cecum (1)	44	First sign	2 months	Alive at time of report	(160)
Chest (1)	68	5 months	1 month	3 weeks	(161)
Foot (1)	43	6 years	2 weeks	Alive at the time of report	(162)
Hard palate (1)	52	17 months	2 weeks	Alive at the time of report	(98)
Nasal septum (1)	57	4.2 years	No data	4 years	(93)
Rib (1)	24	4 years	2 months	No data	(163)
Sacrum (1)	18	6 years	1 week	1 week	(164)
Thigh (1)	27	1 year	2 months	2 months	(165)
Thorax (1)	61	15 months	No data	No data	(166)
Wrist (1)	57	18 months	4 months	Alive at the time of report	(167)
Gluteal (1)	32	28 months	No data	38 months	(34)
Lower extremities (1)	61	No data	No data	No data	(28)
Nasal fossa (1)	69	First sign	No data	44 months	(34)
Shoulder (1)	68	8 months	2 weeks	Alive at the time of report	(168)

vascular organ, and hence, the high incidence of metastatic tumors can be explained. These findings are in agreement with the role of both inflammation and angiogenesis in cancer metastasis.[268,269]

According to a review by Yoshitomi *et al*. the tongue is a frequent site for Renal Cell Carcinoma metastasis and usually indicates a widespread disease.[51] In the present series, there were 58 cases of metastasis from the kidney, and in 19 cases the tongue was the metastatic site. The second most common primary site metastasized to the tongue was the lung with 11 cases. Some other studies revealed that the most common tumors metastases to the tonsil are malignant melanoma and small-cell bronchogenic carcinomas.[270-272] For example, the majority of lung cancers metastasizing to the tonsils

Table 2: A summary of oral metastasis in women

Primary site (No. of patients)	Age range (years)	The time intervals from primary tumor detection to diagnosis of an oral metastasis	Range of time duration of development of a metastatic lesion	The time intervals between diagnosis of primary tumor to death	References
Breast (31)	25-74	Same time-24 years	2 weeks-6 months	2 weeks-3 years	(4, 24, 29, 30, 33, 169-190)
Lung (14)	46-83	Same time-2 years	1 week-8 months	6 weeks-20 months	(29,34,128,191-201)
Thyroid (13)	40-73	4 months-15 years	1 month-1 year	3-9 months	(27,28, 31, 34, 101, 200-206)
Kidney (12)	46-87	6 months-10 years	3 weeks-4 months	1 month-3 years	(4,31,62,101,207-211)
Skin (12)	16-84	1 week-8 years	1 week-2 months	2 months-3 years	(101, 212-216,270)
Unknown (8)	44-87	3-4 months	1-3 months	1-6 months	(4,27,31,41,217,218)
Colon (7)	35-80	1 year-56 months	1-3 months	3 months-1 year	(22,29,220-224)
Rectum (7)	37-79	1-49 months	1 week-2 months	3 weeks-4 months	(27,225-230)
Uterus (6)	45-75	28.5 months	1-9 months	2 weeks-21 months	(14,29, 128, 231-233)
Stomach (6)	48-88	1-14 years	3 months-1 year	2 weeks-1 year,	(22,28,234-237)
Endometrium (4)	26-78	6 months-7 years	1-3 weeks	2 months-6.5 months	(238-241)
Ovary (3)	46-60	5 years	1 month	3 weeks	(14, 242, 243)
Genital organ (3)	48	No data	No data	No data	(28)
Liver (3)	23-78	1-6 years	2 weeks-1month	3 months-2 years	(244-246)
Gluteus (2)	66-68	6 months	No data	44 months	(27, 34)
Bronchus (1)	70	2 weeks	No data	2 years	(247)
Cervix (1)	44	1 year	1 month	1 year	(219)
Elbow (1)	82	10 months	No data	2 months	(34)
Eye (1)	76	6 years	No data	Alive at the time of report	(248)
Femur (1)	15	4 years	2 months	2 months	(249)
Gallbladder (1)	62	1 year	No data	2 months	(250)
Hip (1)	47	8 years	2 months	Alive at the time of report	(251)
Knee (1)	45	3 years	No data	1 month	(252)
Parotid (1)	80	28.5 months	No data	3 months	(128)
Vagina (1)	44	1 year	1 week	1 week	(148)
Rib (1)	12	10 months	No data	2 months	(253)
Shoulder (1)	31	3 years	3 months	2 months	(254)
Phalanx (1)	89	18 months	1 week	1 week	(255)
Spheno-occipital (1)	33	6 years	2 months	Alive at the time of report	(256)

are of the small cell type, thus, adenocarcinomas rarely metastasize to the tonsil.[138] However, this review indicated that most of the metastatic tumors to the tonsil were adenocarcinomas (14 cases), followed by malignant melanoma (11 cases), and there were only 2 small cell carcinomas metastasizing from the lung. Providing an exact diagnosis is very challenging for a pathologist. If the history of a previous cancer exists, the histopathological findings of the metastatic lesion should be compared with those of the primary cancer. Special staining such as immunohistochemistry can be helpful in identifying the nature of the primary tumor.

In addition to the Batson's plexus, the other possible routes of oral metastasis include arterial, venous, and lymphatic circulations. However, in cases such as lung cancer, direct extension by aspiration, access to the pulmonary vein, and drain to the left side of the heart has been suggested. Majority of all metastatic deposits occur in the lungs and liver. Cancer cell clusters drain into the portal vein and then travel to the heart and finally deposit in the lungs.[273] In cases of gastric cancer, stomach contents are also considered as the routes of dissemination. In addition, retrograde dissemination of the tumor to the tongue with involvement of regional lymph nodes is another possible route in the cases of tongue metastasis. As the palatine tonsils do not have afferent lymphatic vessels, the metastatic pathway is difficult to determine in palatal tonsil metastases. Furthermore, retrograde transportation of tumor cells has been suggested.[274-278] Metastasis to the oral cavity mostly occurs in the advanced stage of the disease

Table 3: Comparison of the results with those of previous reviews

Reference No.	Age (years)	Male/ female ratio	Most common primary sites	Most common metastatic site(s)	Most common histological tumor type	Oral metastasis as the first sign
Current review	58	1.8:1	Lung (men), breast and reproductive system (women)	Gingiva, tongue	Adenocarcinoma	23.3%
(5)	42	2:1	Lung, kidney, liver, and prostate in men, the breast, genitals, kidney, and colorectum in women.	Gingiva, tongue	Not mentioned	23%
(3)	54	1.6:1	Lung (men), breast and reproductive system (women)	Gingiva, tongue	No difference	20.4%
(257)	54	3.6:1	Lung, kidney, skin	Gingiva, tongue	Not mentioned	30%
(29)	54.7	1.28:1	Lung, breast, kidney, liver, and prostate	gingiva	Adenocarcinoma	29%
(28)	55.2	1.9:1	liver, female genital organs, and thyroid	Gingiva, tongue	Hepatocellular carcinoma	26.8%
(34)	65	2.3:1	Lung, kidney	Gingiva or alveolar mucosa , tongue	Carcinoma	26.1%
(31)	62.3	1.1:1	Kidney, lung, and breast	Gingiva, tongue	Adenocarcinoma	25.6%
(258)	53.9	2:1	Lung, kidney, skin	Gingiva, tongue	Carcinoma	27%
(22)	64.8	5:1	Liver, lung stomach	Gingiva, tonsil	Carcinoma	34%

and indicates widespread disease. The prognosis and treatment depends on the site of primary tumor and degree of metastatic spread.[273] The metastatic lesion should be treated by surgical resection, radiation, chemotherapy, or a combination of these methods. Palliative treatment reduces the patient's pain, size of tumor, and preserves oral function.[8]

CONCLUSION

The diagnosis of a metastatic lesion in the oral cavity is a challenge to the clinicians due to the lack of pathognomonic signs and symptoms. Oral metastases usually occur in the advanced stages of cancers, and the interval between appearance and death is usually short. Therefore, due to a high mortality rate, patients with oral lesions, particularly those with a history of a malignancy, deserve a careful diagnostic procedure. Even with the diagnosis of a primary lesion, it is necessary to make a definite diagnosis of oral lesions for appropriate treatment. The oral soft tissue metastasis can be easily recognized compared to jawbones metastasis. Early detection of oral lesions is important in the case of being the first sign of a malignancy in other parts of the body.

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Conflicts of interest

There are no conflicts of interest

REFERENCES

1. Zachariades N. Neoplasms metastatic to the mouth, jaws and surrounding tissues. J Craniomaxillofac Surg 1989;17:283-90.
2. Irani S Moshref M, Lotfi A. Metastasis of a gastric adenocarcinoma to the mandible: A case report. Oral Oncol Extra 2004;40:85-7.
3. Hirshberg A, Leibovich P, Buchner A. Metastases to the oral mucosa: Analysis of 157 cases. J Oral Pathol Med 1993;22:385-90.
4. van der Waal RI, Buter J, van der Waal I. Oral metastases: Report of 24 cases. Br J Oral Maxillofac Surg 2003;41:3-6.

5. Hirshberg A, Shnaiderman-Shapiro A, Kaplan I, Berger R. Metastatic tumours to the oral cavity - Pathogenesis and analysis of 673 cases. Oral Oncol 2008;44:743-52.
6. Hirshberg A, Leibovich P, Horowitz I, Buchner A. Metastatic tumors to postextraction sites. J Oral Maxillofac Surg 1993;51:1334-7.
7. Sauerborn D, Vidakovic B, Baranovic M, Mahovne I, Danic P, Danic D. Gastric adenocarcinoma metastases to the alveolar mucosa of the mandible: A case report and review of the literature. J Craniomaxillofac Surg 2011;39:645-8.
8. Kumar GS MB. Metastatic tumors to the jaws and oral cavity. J Oral Maxillofac Pathol 2013;17:71-5.
9. Gupta M, Choudhary PS, Avinash Rao S, Mehta A. An original case of lip metastasis, from non small cell lung cancer. Hell J Nucl Med 2010;13:173-4.
10. You TK, Kim SR, Park HS, Jang KY, Moon WS, Chung MJ, *et al.* Fine needle aspiration cytology of metastatic adenocarcinoma of the gingiva from the lung: A case report. Korean J Pathol 2012;46(1):101-4.
11. Kirke D, Horwood K, Wallwork B. Floor of mouth and tongue metastasis from malignant pleural mesothelioma. ANZ J Surg 2010;80:556-8.
12. Peris K, Cerroni L, Paoloni M, Margiotta V, Chimenti S. Gingival metastasis as first sign of an undifferentiated carcinoma of the lung. J Dermatol Surg Oncol 1994;20:407-9.
13. Jaguar GC, Soaresb F, Alves FA, Toleda Osóriob CA. Gingival metastasis from non-small cell undifferentiated carcinoma of the lung mimicking a pyogenic granuloma. A case eport. Oral Oncol Extra 2006;42:36-9.
14. Akheel M. Hide and Seek Neoplasms of oral cavity-series of 4 cases Guident. 2013;658-61.
15. Park JY, Kim HS, Zo JI, Lee S, Choi SW. Initial presentation of lung sarcomatoid carcinoma as a metastatic lesion in the mandibular gingiva. J Periodontol 2006;77:734-7.
16. Lopez-Jornet P, Garcia G, Camacho-Alonso F. Isolated gingival metastasis from lung carcinoma. N Y State Dent J 2011;77(1):27-8.
17. Yoshii T, Muraoka S, Sano N, Furudoi S, Komori T. Large cell carcinoma of the lung metastatic to the mandibular gingiva. J Periodont 2002;73:571-4.
18. Califano L, Sanguedolce F, Staibano S, Pannone G, Tortorella S, Serpico R, *et al.* Large oral soft tissue metastasis from anaplastic carcinoma of the lung mimicking a primitive malignancy: Case report and brief review of the literature. Minerva Stomatol 2008;57:447-51.
19. McClure SA, Movahed R, Salama A, Ord RA. Maxillofacial metastases: A retrospective review of one institution's 15-year experience. J Oral Maxillofac Surg 2013;71:178-88.
20. Selden HS, Manhoff DT, Hatges NA, Michel RC. Metastatic carcinoma to the mandible that mimicked pulpal/periodontal disease. J Endod 1998;24:267-70.
21. Kim RY, Perry SR, Levy DS. Metastatic carcinoma to the tongue: A report of two cases and a review of the literature. Cancer 1979;43:386-9.
22. Shin SJ, Roh JL, Choi SH, Nam SY, Kim SY, Kim SB, *et al.* Metastatic carcinomas to the oral cavity and oropharynx. Korean J Pathol 2012;46:266-71.
23. Moharil RB, Khandekar S, Dive A. Metastatic lung malignancy to mandibular gingiva. Indian J Dent Res 2010;21:449-51.
24. Hefer T, Danino J, Joachims HZ, Groisman GM. Metastatic malignant mesothelioma to the tonsil. Otolaryngol Head Neck Surg 1997;116:684-8.
25. Kerpel SM, Freedman PD. Metastatic mesothelioma of the oral cavity. Report of two cases. Oral Surg Oral Med Oral Pathol 1993;76:746-51.
26. Zanconati F, DelConte A, Bonifacio-Gori D, Falconieri G. Metastatic pleural mesothelioma presenting with solitary involvement of the tongue: Report of a new case and review of the literature. Int J Surg Pathol 2003;11:51-5.
27. Abdul Jalil A, Lau SH. Metastatic Tumours of the Oral Cavity in Malaysians: A Retrospective Study (1967-2007). 2009;21(3).
28. Lim SY, Kim SA, Ahn SG, Kim HK, Kim SG, Hwang HK, *et al.* Metastatic tumours to the jaws and oral soft tissues: A retrospective analysis of 41 Korean patients. Int J Oral Maxillofac Surg 2006;35:412-5.
29. Shen ML, Kang J, Wen YL, Ying WM, Yi J, Hua CG, *et al.* Metastatic tumors to the oral and maxillofacial region: A retrospective study of 19 cases in West China and review of the Chinese and English literature. J Oral Maxillofac Surg 2009;67:718-37.
30. Jham BC, Salama AR, McClure SA, Ord RA. Metastatic tumors to the oral cavity: A clinical study of 18 cases. Head Neck Pathol 2011;5:355-8.
31. Seoane J, Van der Waal I, Van der Waal RI, Cameselle-Teijeiro J, Anton I, Tardio A, *et al.* Metastatic tumours to the oral cavity: A survival study with a special focus on gingival metastases. J Clin Periodontol 2009;36:488-92.
32. Ravi Prakash SM, Verma S, Gill N, Malik V. Multiple gingival metastasis of adenocarcinoma of the lung. Indian J Dent Res 2012;23:558-9.
33. Villa A, Mariani U, Villa F. Oral metastasis of lung cancer. A challenge for the clinician. Oral Maxillofac Surg 2012;16:133-5.
34. Maschino F, Guillet J, Curien R, Dolivet G, Bravetti P. Oral metastasis: A report of 23 cases. Int J Oral Maxillofac Surg 2013;42:164-8.
35. Mastronikolis NS, Tsiropoulos GE, Chorianopoulos D, Liava AC, Stathas T, Papadas TA. Palatine tonsillar metastasis from lung adenocarcinoma. Eur Rev Med Pharmacol Sci 2007;11:279-82.
36. Hong W, Wang X, Yu XM, Chen B, Ding GJ, Zhang YP. Palatine tonsillar metastasis of lung cancer during chemotherapy. Int J Clin Exp Pathol 2012;5:468-71.
37. Kadokura M, Kataoka D, Nonaka M, Tanio N, Kunimura T, Kushima M, *et al.* Pulmonary adenocarcinoma metastatic to the gingiva. Int J Clin Oncol 1999;4:253-5.
38. Hicks MJ, Smith JD Jr, Carter AB, Flaitz CM, Barrish JP, Hawkins EP. Recurrent intrapulmonary malignant small cell tumor of the thoracopulmonary region with metastasis to the oral cavity: Review of literature and case report. Ultrastruct Pathol 1995;19:297-303.
39. Tsubochi H, Isogami K, Sato N, Imai T. Successfully treated lingual tonsillar metastasis from bronchial adenocarcinoma. Jpn J Thorac Cardiovasc Surg 2005;53:455-7.
40. Linton K, Bath AP, Lee JA. Tonsillar metastasis from malignant pulmonary carcinoid tumour. J Laryngol Otol 1998;112:581-3.
41. Murillo J, Bagan JV, Hens E, Diaz JM, Leopoldo M. Tumors metastasizing to the oral cavity: A study of 16 cases. J Oral Maxillofac Surg 2013;71:1545-51.
42. Won KB, Song JH, Lee JW, Ha WC, Park KU. Metastatic sarcomatoid carcinoma presenting as a pedunculated mass on the floor of the mouth. Korean J Intern Med 2015;30:547-9.
43. Rajini Kanth M, Ravi Prakash A, Raghavendra Reddy Y, Sonia Bai JK, Ravindra Babu M. Metastasis of lung adenocarcinoma to the gingiva: A rare case report. Iranian J Med Sci 2015;40:287-91.
44. Makos CP, Psomaderis K. A literature review in renal carcinoma metastasis to the oral mucosa and a new report of an epulis-like metastasis. J Oral Maxillofac Surg 2009;67:653-60.
45. Sikka S, Sikka P, Kaur G, Shetty DC. A review of histopathological and immunohistochemical parameters in diagnosis of metastatic renal cell carcinoma with a case of gingival metastasis. J Cancer Res Ther 2013;9:105-7.
46. Lee G, Sharma SD, Bullock KN. An unusual case of renal cell carcinoma with two rare metastases. Scand J Urol Nephrol 1998;32:239-40.
47. Schwab B, Lee WT. Bilateral renal cell carcinoma metastasis in the oral cavity. Am J Otolaryngol 2012;33:154-5.
48. Mazeron R, Fenoll L, Mathieu MC, Dumas I, Haie-Meder C. Brachytherapy for isolated tongue metastasis of renal clear cell carcinoma. Eur Ann Otorhinolaryngol Head Neck Dis 2013;130:149-51.
49. Eivazi Ziaei J, Fakhrgoo A, Estakhri R. Gingival Metastasis of Renal Cell Carcinoma. Iran J Cancer Prev 2011;1:44-7.
50. Massaccesi M, Morganti AG, Serafini G, Di Lallo A, Deodato F, Picardi V, *et al.* Late tonsil metastases from renal cell cancer: A case report. Tumori 2009;95:521-4.
51. Yoshitomi I, Kawasaki G, Mizuno A, Nishikido M, Hayashi T, Fujita S, *et al.* Lingual metastasis as an initial presentation of renal cell carcinoma. Med Oncol 2011;28:1389-94.
52. Ganini C, Lasagna A, Ferraris E, Gatti P, Paglino C, Imarisio I, *et al.* Lingual metastasis from renal cell carcinoma: A case report and literature review. Rare Tumors 2012;4:e41.
53. Bucin E, Andreasson L, Bjorlin G. Metastases in the oral cavity. Case reports. Int J Oral Surg 1982;11:321-5.
54. Irani S. Metastasis to head and neck area: A 16-year retrospective study. Am J Otolaryngol 2011;32:24-7.
55. Maestre-Rodriguez O, Gonzalez-Garcia R, Mateo-Arias J, Moreno-Garcia C, Serrano-Gil H, Villanueva-Alcojol L, *et al.* Metastasis of renal clear-cell carcinoma to the oral mucosa, an atypical location. Med Oral Patol Oral Cir Bucal 2009;14:e601-4.
56. Lewis DM. Metastasis to the oral cavity. J Okla Dent Assoc 2008;99:28-9.
57. Shinozaki IH, Nakayama R, Noguchi T, Jinbu Y, Kusama M, Nishino H, *et al.* Metastatic Clear Cell Carcinoma of the Mandible in a Patient with Renal Cancer undergoing Haemodialysis. Asian J Oral Maxillofac Surg 2009;21:43-7.
58. Nakano H, Naito K, Suzuki S, Naito K, Kubota T, Takizawa S. Metastatic renal cell carcinoma in the cheek: Report of a case. J Oral Maxillofac Surg Med Pathol 2013;25:291-3.
59. Tsianos EB, Karentzos C, Papadopoulos NE. Metastatic renal cell carcinoma in the gingiva of the maxilla and mandible: Report of a case. J Oral Maxillofac Surg 1987;45:975-7.
60. Ficarra G, Pierleoni L, Panzoni E. Metastatic renal cell carcinoma involving Wharton's duct: A case report. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1996;81:580-3.
61. Pritchyk KM, Schiff BA, Newkirk KA, Krowiak E, Deeb ZE. Metastatic renal cell carcinoma to the head and neck. Laryngoscope 2002;112:1598-602.
62. Pires FR, Azevedo RS, Ficarra G, Cardoso AS, Carlos R, Kowalski LP, *et al.* Metastatic renal cell carcinoma to the oral cavity and clear cell mucoepidermoid carcinoma: Comparative clinicopathologic and immunohistochemical study. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2010;109:e22-7.
63. Will TA, Agarwal N, Petruzzelli GJ. Oral cavity metastasis of renal cell carcinoma: A case report. J Med Case Rep 2008;2:313.
64. Zhang Y, Gu ZY, Tian Z, Yang C, Cai XY. Oral metastasis from primary transitional cell carcinoma of the renal pelvis: Report of a case. Int J Oral Maxillofac Surg 2010;39:737-9.
65. Narea-Matamala G, Fernandez-Toro Mde L, Villalabeitia-Ugarte E, Landaeta-Mendoza M, Rojas-Alcayaga G. Oral metastasis of renal cell carcinoma, presentation of a case. Med Oral Patol Oral Cir Bucal 2008;13:E742-4.
66. Lutcavage GJ, Branham GB, Winterholler BW, Wood DA. Renal cell carcinoma metastasis to the hard palate. J Oral Maxillofac Surg 1984;42:469-74.
67. Ahmadnia H, Amirmajdi NM, Mansourian E. Renal cell carcinoma presenting as mandibular metastasis. Saudi J Kidney Dis Transpl 2013;24:789-92.
68. Ray A, Bhattacharya J, Ganguly S. Renal cell carcinoma presenting with oral tongue metastasis: A rare case presentation. J Cancer Res Ther 2013;9:117-8.
69. Cochrane TJ, Cheng L, Crean S. Renal cell carcinoma: A rare metastasis to the tongue-A case report. Dent Update 2006;33:186-7.
70. Tunio MA,Al-Asiri M,Ahmad Sh, Fareed M. Tongue metastasis as an initial manifestation of metastasis in renal cell carcinoma: A case report. J Solid Tumors 2012;2:39.
71. Azam F, Abubakerr M, Gollins S. Tongue metastasis as an initial presentation of renal cell carcinoma: A case report and literature review. J Med Case Rep 2008;2:249.
72. Ord RA, Malins T, Ward-Booth PR. Vascular metastatic renal carcinoma of the maxilla. Report of two cases. Int J Oral Maxillofac Surg 1990;19:106-9.
73. Okabe Y, Ohoka H, Miwa T, Nagayama I, Furukawa M. View from beneath: Pathology in focus. Renal cell carcinoma metastasis to the tongue. J Laryngol Otol 1992;106:282-4.
74. Kawakami T, Kimura A, Hasegawa H, Eda S. A Case Report of Metastatic Carcinoma of the Gingiva: A case report. Oral Med Pathol 1998;3:35-9.
75. Wang AR, Paletta F, Banki M. A unique presentation of oral metastases from hepatocellular carcinoma. J Oral Maxillofac Surg 2013;71:1298-302.
76. Bair MJ, Lei WY, Chen CL. Electronic images of the month. An unusual presentation of hematemesis: A presentation of maxillary metastasis from hepatocellular carcinoma. Clin Gastroenterol Hepatol 2010;8:e61-2.
77. Wang HY, Su CY, Lin JW, Chien CY. Base of the tongue metastatic cancer from hepatocellular carcinoma: A case report. Eur Arch Otorhinolaryngol 2004;261:531-3.
78. Kuo IJ, Chen PR, Hsu YH. Gingival Metastasis of Primary Hepatocellular Carcinoma — Case Report. Tzu Chi Med J 2006;18:145-7.
79. Terada T. Hepatocellular carcinoma metastatic to the gingiva as a first manifestation of

hepatocellular carcinoma. J Maxillofac Oral Surg 2011;10:271-4.
80. Maiorano E, Piattelli A, Favia G. Hepatocellular carcinoma metastatic to the oral mucosa: Report of a case with multiple gingival localizations. J Periodontol 2000;71:641-5.
81. Llanes F, Sanz-Ortega J, Suarez B, Sanz-Esponera J. Hepatocellular carcinomas diagnosed following metastasis to the oral cavity. Report of 2 cases. J Periodontol 1996;67:717-9.
82. Ramon Ramirez J, Seoane J, Montero J, Esparza Gomez GC, Cerero R. Isolated gingival metastasis from hepatocellular carcinoma mimicking a pyogenic granuloma. J Clin Periodontol 2003;30:926-9.
83. Marker P, Clausen PP. Metastases to the mouth and jaws from hepatocellular carcinomas. A case report. Int J Oral Maxillofac Surg 1991;20:371-4.
84. Okada H, Kamino Y, Shimo M, Kitamura E, Katoh T, Nishimura H, *et al.* Metastatic hepatocellular carcinoma of the maxillary sinus: A rare autopsy case without lung metastasis and a review. Int J Oral Maxillofac Surg 2003;32:97-100.
85. Friedrich RE, Zustin J. Multiple distant metastases of hepatocellular carcinoma to the oral cavity. *In Vivo* 2010;24:211-4.
86. Goldaracena N, Barreto M, Casas G, Anders M, Mastai R, McCormack L. Oral Cavity Metastasis of Hepatocellular Carcinoma following Liver Transplantation. Case Rep Transplant 2012;2012:181242.
87. Pires FR, Sagarra R, Correa ME, Pereira CM, Vargas PA, Lopes MA. Oral metastasis of a hepatocellular carcinoma. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2004;97:359-68.
88. Li R, Walvekar RR, Nalesnik MA, Gamblin TC. Unresectable hepatocellular carcinoma with a solitary metastasis to the mandible. Am Surg 2008;74:346-9.
89. Afroze N, Soomro IN, Pervez S, Kayani N, Hasan SH. Well differentiated hepatocellular carcinoma metastasizing to jaw and oral cavity within six months of primary diagnosis. J Pak Med Assoc 1998;48:219-20.
90. Cecchi R, Pavesi M, Calamandrei P, Rapicano V, De Gaudio C. Tonsil metastasis from cutaneous melanoma: First clinical sign of recurrence after complete lymph node dissection. J Cutan Med Surg 2010;14:43-5.
91. Tanabe K, Masuzawa M, Aki R, Masuzawa M, Arai S, Hayakawa K, *et al.* Angiosarcoma of the scalp with metastasis to the gingiva. Acta Derm Venereol 2008;88:512-3.
92. Al-Ibraheem A, Souvatzoglou M, Buck A, Schwaiger M. Melanoma metastases to palatine tonsils obscured by physiological FDG uptake on PET/CT. Clin Nucl Med 2010;35:101-2.
93. Patton LL, Brahim JS, Baker AR. Metastatic malignant melanoma of the oral cavity. A retrospective study. Oral Surg Oral Med Oral Pathol 1994;78:51-6.
94. Pakos EE, Tsekeris PG, Gogou PV, Koutis EV, Capizzello A, Exarchakos G. Cutaneous melanoma with tonsillar metastasis. Tumori 2006;92:437-9.
95. Srinivasan SV, Pal KM, Dayal PK, Bastian TS, Patil S. Metastatic malignant melanoma of maxillary gingiva. A case report. Indian J Dent Res 1997;8:119-22.
96. Compilato D, Amato S, Campisi G. Metastatic melanoma of the tongue: A rare case. Actas Dermosifiliogr 2012;103:833-6.
97. Wakasugi S, Kageshita T, Ono T. Metastatic melanoma to the palatine tonsil with a favourable prognosis. Br J Dermatol 2001;145:327-9.
98. Aydogan LB, Myers JN, Myers EN, Kirkwood J. Malignant melanoma metastatic to the tonsil. Laryngoscope 1996;106:313-6.
99. Ramamurthy L, Nassar WY, Hasleton PS. Metastatic melanoma of the tonsil and the nasopharynx. J Laryngol Otol 1995;109:236-7.
100. Alves MG, Chagas LR, Carvalho YR, Cabral LA, Coletta RD, Almeida JD. Metastatic melanoma of the tongue: A case report with immunohistochemical profile. Gerodontology 2014;31:314-9.
101. Friedrich RE, Abadi M. Distant metastases and malignant cellular neoplasms encountered in the oral and maxillofacial region: Analysis of 92 patients treated at a single institution. Anticancer Res 2010;30:1843-8.
102. Piattelli A, Fioroni M, Rubini C. Gingival metastasis from a prostate adenocarcinoma: Report of a case. J Periodontol 1999;70:441-4.
103. Damodaran D, Kathiresan N, Satheesan B. Oral cavity metastasis: An unusual presentation of carcinoma prostate. Indian J Urol 2008;24:112-3.
104. Millar EK, Vaughan Jones R, Lang S. Prostatic adenocarcinoma metastatic to the palatine tonsil: A case report. J Laryngol Otol 1994;108:178-80.
105. Reyes Court D, Encina S, Levy I. Prostatic adenocarcinoma with mandibular metastatic lesion: Case report. Med Oral Patol Oral Cir Bucal 2007;12:E424-7.
106. Gallo A, Pescarmona E, Crupi J, Corsetti GL, De Vincentiis M. Bilateral tonsillar metastasis of gastric adenocarcinoma. Head Neck 1992;14:55-7.
107. Nisi G, Grimaldi L, Brandi C, Silvestri A, Brafa A, Calabro M, *et al.* Cutaneous metastasis of the superior lip from adenocarcinoma of the gastro-oesophageal junction. A case report. Chir Ital 2007;59:883-6.
108. Shimoyama S, Seto Y, Aoki F, Ogawa T, Toma T, Endo H, *et al.* Gastric cancer with metastasis to the gingiva. J Gastroenterol Hepatol 2004;19:831-5.
109. Kwon MS, Ko SO, Cho NP, Kim OH, Shin HK, Baek JA, *et al.* Gastric signet-ring cell adenocarcinoma metastatic to the gingiva: A case report. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2006;102:62-6.
110. Masamatti SS, Pandav AB, Kulkarni MP, Sulhyan KR. Gastroesophageal junction adenocarcinoma metastasizing to gingiva. Int J Appl Basic Med Res 2013;3:69-71.
111. Benito I, Alvarez-Gago T, Morais D. Tonsillar metastasis from adenocarcinoma of the stomach. J Laryngol Otol 1996;110:291-3.
112. Hurlstone DP, Sanders DS, Smith A, Jones RB, Slater DN, Bardhan KD. Tonsillar metastasis: A rare presentation of gastric carcinoma. Eur J Surg Oncol 2001;27:328-30.
113. Sheng LM, Zhang LZ, Xu HM, Zhu Y. Ascending colon adenocarcinoma with tonsillar metastasis: A case report and review of the literature. World J Gastroenterol2008;14:7138-40.
114. Álvarez CA, Rodríguez BL, Irazu SP, Sánchez-Gracián CD. Colon adenocarcinoma with metastasis to the gingiva. Oral Patol Oral Cir Bucal 2006;11:E85-7.
115. Rosbottom KJ, Michie B, Boyce S. Metastasis of recurrent colonic adenocarcinoma to the mouth. BMJ Case Rep 2009;2009 pii: bcr03.2009.
116. Delfino JJ, Wilson TK, Rainero DM. Metastatic adenocarcinoma from the colon to the mandible. J Oral Maxillofac Surg 1982;40:188-90.
117. Soares AB, Thomaz LA, Duarte MT, de Camargo de Moraes P, de Araujo VC. Metastatic adenocarcinoma of the colon: Early manifestation in gingival tissue. Head Neck Pathol 2011;5:140-3.
118. Low WK, Sng I, Balakrishnan A. Palatine tonsillar metastasis from carcinoma of the colon. J Laryngol Otol 1994;108:449-51.
119. Jones DC. Adenocarcinoma of the esophagus presenting as a mandibular metastasis. J Oral Maxillofac Surg 1989;47:504-7.
120. Ide F, Shimoyama T, Haga H, Horie N. Basaloid squamous cell carcinoma of the esophagus metastatic to the gingiva: A case report. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1997;83:584-7.
121. Sokolosky M, Jr., Bouquot JE, Graves RW. Esophageal carcinoma metastatic to the oral cavity. J Oral Maxillofac Surg 1986;44:825-7.
122. Mehta DN, Bailoor DN, Tarsariya VM, Parikh BP. From esophagus to gingiva: A rare case of metastatic adenocarcinoma. J Oral Maxillofac Pathol 2012;16:428-31.
123. Sanchez-Jimenez J, Acebal-Blanco F, Arevalo-Arevalo RE, Molina-Martinez M. Metastatic tumours in upper maxillary bone of esophageal adenocarcinoma. A case report. Med Oral Patol Oral Cir Bucal 2005;10:252-7.
124. Struijs B, de Bree R, van Groeningen CJ, Mooi WJ, Leemans CR. Tonsillar metastasis of oesophageal adenocarcinoma. Eur Arch Otorhinolaryngol 2008;265:127-9.
125. Goldenberg D, Golz A, Arie YB, Joachims HZ. Adenocarcinoma of the rectum with metastasis to the palatine tonsil. Otolaryngol Head Neck Surg 1999;121:653-4.
126. Tsianos E, Banis C, Stefanaki-Nikou S, Drosos A. Mandibular gingival metastasis from a rectal adenocarcinoma. J Oral Maxillofac Surg 1985;43:133-5.
127. Spinelli GP, Caprio G, Tomao F, Barberi S, Miele E, Boghi F, *et al.* Metastatic infiltration of adenocarcinoma of the rectum in hard palate: Report of a case and a review of the literature. Oral Oncol Extra 2006;42:206-9.
128. Bodner L, Sion-Vardy N, Geffen DB, Nash M. Metastatic tumors to the jaws: A report of eight new cases. Med Oral Patol Oral Cir Bucal 2006;11:E132-5.
129. Vauleon E, De Lajarte-Thirouard AS, Boucher E, Le Prise E, Guihaire P, Raoul JL. Tonsillar metastasis revealing signet-ring cell carcinoma of the rectum. Gastroenterol Clin Biol 2005;29:70-2.
130. de Courten A, Irle C, Samson J, Lombardi T. Metastatic transitional cell carcinoma of the urinary bladder presenting as a mandibular gingival swelling. J Periodontol 2001;72:688-90.
131. Lee KS, Song IC, Yun HJ, Jo DY, Kim S, Lee HJ. Transitional cell carcinoma of the urinary bladder metastatic to the oral mucosa. Oncol Lett 2012;3:343-5.
132. Chee M, See A, Teo M. Metastatic urinary bladder transitional cell carcinoma to the oral cavity and oropharynx. Eur Surg. 2015;online:1-3.
133. Angiero F, Stefani M. Metastatic embryonal carcinoma in the maxillary gingiva. Anticancer Res 2008;28:1181-6.
134. Scolozzi P, Marret N, Bouzourene H, Luthi F, Bauer J, Jaques B, *et al.* Mixed testicular germ cell tumor presenting as metastatic pure choriocarcinoma involving the maxillary gingiva. J Oral Pathol Med 2006;35:579-81.
135. Lee L, Oppenheimer R, Jayaram L. Germ cell tumor metastatic to the oral cavity. Germ cell tumor metastatic to the oral cavity. Ear, nose, & throat journal 2012;91:172-3.
136. Bastian HL, Jensen EK, Jylling AM. Urachal carcinoma with metastasis to the maxilla: The first reported case. J Oral Pathol Med 2001;30:378-80.
137. Curien R, Moizan H, Gerard E. Gingival metastasis of a bronchogenic adenocarcinoma: Report of a case. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2007;104:e25-8.
138. Monforte R, Ferrer A, Montserrat JM, Picado C, Palacin A. Bronchial adenocarcinoma presenting as a lingual tonsillar metastasis. Chest 1987;92:1122-3.
139. Staalsen NH, Nielsen JS. Bronchogenic metastasis to the gingiva. Oral Surg Oral Med Oral Pathol 1992;74:561-2.
140. Fitzwilliams DC. Specimen of Carcinoma of Tongue Secondary to a Primary Growth in a Bronchus. Proc R Soc Med 1938;31:551-2.
141. Sadat RS, Ahmed M. Metastatic Jaw Swelling as the First Manifestation of Adrenal Malignancy: A Case Report. J Bangladesh Coll Phys Surg 2007;25:153-6.
142. Ogunsalu C, Smith NJ. Metastatic neuroblastoma of the mandible mimicking osteogenic sarcoma radiologically. Case report. Aust Dent J 1999;44:207-10.
143. Otmani N, Khattab M. Metastatic neuroblastoma to the mandible in a 3-year-old boy: A case report. Med Oral Patol Oral Cir Bucal 2007;12:E201-4.
144. Chaturvedy G, Kumar R, Sikka K, Karthikeyan CV, Mathur SR. An unusual site of distant metastasis in carcinoma of the thyroid. Indian J Cancer 2010;47:479-80.
145. Mariano FV, Correa MB, da Costa MV, de Almeida OP, Lopes MA. Labial mucosa metastasis of fibule giant cell-rich osteosarcoma: An unusual presentation. Quintessence Int 2013;44:783-91.
146. Li M, Saghafi N, Freymiller E, Basile JR, Lin YL. Metastatic Merkel cell carcinoma of the oral cavity in a human immunodeficiency virus-positive patient and the detection of Merkel cell polyomavirus. Oral Surg Oral Med Oral Pathol Oral Radiol 2013;115:e66-71.
147. Tesei F, Farneti G, Cavicchi O, Antonelli P, Zanetti G, Leone O. A case of Merkel-cell carcinoma metastatic to the tonsil. J Laryngol Otol 1992;106:1100-2.
148. Carl W. Tumor metastases to the oral cavity. Quintessence Int Dent Dig 1980;11:11-6.
149. Bernabe DG, Veronese LA, Miyahara GI, Conrado-Neto S, Biasoli ER. Gingival metastasis from salivary duct carcinoma of the parotid gland. J Periodontol 2008;79:748-52.
150. Reiland MD, Koutlas IG, Gopalakrishnan R, Pearson AG, Basi DL. Metastasizing pleomorphic adenoma presents intraorally: A case report and review of the literature. J Oral Maxillofac Surg 2012;70:e531-40.
151. Sinon SH, Rich AM, Hussaini HM, Yoon HS, Firth NA, Seymour GJ. Metastases to the oral region from pleural mesothelioma: Clinicopathologic review. Head Neck 2013;35:599-604.
152. Moser S, Beer M, Damerau G, Lubbers HT, Gratz KW, Kruse AL. A case report of metastasis of malignant mesothelioma to the oral gingiva. Head Neck Oncol 2011;3:21.
153. Suzuki K, Yoshida H, Onizawa K, Onobori M. Metastatic osteosarcoma to the mandibular gingiva: A case report. J Oral Maxillofac Surg 1999;57:864-8.

154. Carnelio S, Pai K, Rao N, Solomon M, Ahasan A. Metastatic osteosarcoma to the maxilla: A case report and a review of the literature. Quintessence Int 2002;33:397-9.
155. Kesting MR, Loeffelbein DJ, Holzle F, Wolff KD, Ebsen M. Male breast cancer metastasis presenting as submandibular swelling. Auris Nasus Larynx 2006;33:483-5.
156. Sahoo NK, Mohan Rangan N, Kakkar S, Jeyaraj P, Bhat S. Masticator space metastasis from a male breast carcinoma: A case report. J Oral Maxillofac Surg Med Pathol 2013;25(2):160-3.
157. Bayar GR, Gulses A, Sencimen M, Aydintug YS, Arpaci F, Gunhan O. Oral metastasis of the mediastinal germ cell tumor (yolk sac). J Craniofac Surg 2010;21:1828-30.
158. Moonda A, Fatteh S. Metastatic colorectal carcinoma: An unusual presentation. J Cutan Pathol 2009;36:64-6.
159. Ahmad S, Roberts GJ, Lucas VS, Barrett AW, Harkness W. Metastatic infiltration of the dental pulp by medulloblastoma. J Oral Pathol Med 2002;31:244-5.
160. Guvenc MG, Ada M, Acioglu E, Pamukcu M. Tonsillar metastasis of primary signet-ring cell carcinoma of the cecum. Auris Nasus Larynx 2006;33:85-8.
161. Pereira CM, de Abreu Alves F, Correa ME, Lima CS, de Almeida OP. Mouth metastasis of peripheral primitive neuroectodermal tumor. Oral Dis 2005;11:44-5.
162. Englert TP, Kahn MR, Bushkoff SH, Mendelow H. Mandibular metastasis of an extraskeletal myxoid chondrosarcoma arising on the plantar surface of the foot: Report of case. J Oral Surg 1978;36:401-5.
163. Dumpala RK, Guttikonda VR, Yeluri S, Madala J. Oral metastasis of chondroblastic osteosarcoma. Contemp Clin Dent 2012;3:367-9.
164. Chen YK, Chen CH, Lin LM. Soft-tissue metastasis of osteosarcoma to the submental vestibule. Int J Oral Maxillofac Surg 2006;35:1068-71.
165. Rocha LA, Rizo VH, Romanach MJ, de Almeida OP, Vargas PA. Oral metastasis of alveolar soft-part sarcoma: A case report and review of literature. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2010;109:587-93.
166. Geist J, Azzopardi M, Domanowski A, Plezia R, Venkat H. Thoracic malignant fibrous histiocytoma metastatic to the tongue and skin of the face. Oral Surg Oral Med Oral Pathol 1990;69:199-204.
167. Kao SY, Tu HF, Chang KW, Chang CS, Yang AH, Li WY. Epithelioid sarcoma metastasis to the gingivae: A case report. Int J Oral Maxillofac Surg 2004;33:205-8.
168. McElderry J, McKenney JK, Stack BC. High-grade liposarcoma metastatic to the gingival mucosa: Case report and literature review. Am J Otolaryngol 2008;29:130-4.
169. Yoshimura Y, Inoue Y, Mihara Y, Miura H. Metastatic malignant cystosarcoma phyllodes. Report of a case presenting with an oral tumour and review of the literature. J Craniomaxillofac Surg 1991;19:227-31.
170. Suarez Roa Mde L, Ruiz Godoy Rivera LM, Vela Chavez T, Perez Sanchez M, Meneses Garcia A. Breast malignant phyllodes tumour metastasising to soft tissues of oral cavity. Clin Transl Oncol 2007;9:258-61.
171. Bar R, Netzer A, Ostrovsky D, Daitzchman M, Golz A. Abrupt tonsillar hemorrhage from a metastatic hemangiosarcoma of the breast: Xase report and literature review. Ear Nose Throat J 2011;90:116-20.
172. El Dibany MM, Azab AS, Kutty MK. Breast carcinoma metastatic to the maxillary gingiva. J Oral Maxillofac Surg 1984;42:459-61.
173. Shah MY, Mehta AR. Metastasis from breast cancer presenting as an epulis in the upper gingiva. J Oral Maxillofac Pathol 2009;13:38-40.
174. Ericksona HP H-SA. Breast cancer metastasis to a mandibular extraction socket: A case report and discussion on clinical detection of metastasis to the oral cavity. A case report. J Oral Maxillofac Surg Med Pathol 2014;26:262-7.
175. Kechagias N, Ntomouchtsis A, Patrikidou A, Christoforidou B, Andreadis C, Vahtsevanos K. Metastasis of a ductal breast carcinoma to the buccal mucosa of the mandible with tooth involvement. Oral Maxillofac Surg 2012;16:377-81.
176. Zachariades N, Papanicolaou S. Breast cancer metastatic to the mandible. J Oral Maxillofac Surg 1982;40:813-8.
177. Adelson RT, DeFatta RJ, Miles BA, Hoblitt SL, Ducic Y. Metastatic breast cancer of the oral cavity. Am J Otolaryngol 2005;26:279-81.
178. Perlmutter S, Buchner A, Smukler H. Metastasis to the gingiva. Report of a case of metastasis from the breast and review of the literature. Oral Surg Oral Med Oral Pathol 1974;38:749-54.
179. Jain S, Kadian M, Khandelwal R, Agarwal U, Bhowmik KT. Buccal metastasis in a case of carcinoma breast: A rare case report with review of literature. Int J Surg Case Rep 2013;4:406-8.
180. Sweet JB, McDaniel RK, Butler DP. Gingival metastasis from breast carcinoma. J Oral Maxillofac Surg 1985;43:546-9.
181. Poulias E, Melakopoulos I, Tosios K. Metastatic breast carcinoma in the mandible presenting as a periodontal abscess: A case report. J Med Case Rep 2011;5:265.
182. Chiarelli A, Boccone P, Goia F, Gatti M, De Rosa G, Manca A, *et al.* Gingival metastasis of a radiotherapy-induced breast angiosarcoma: Diagnosis and multidisciplinary treatment achieving a prolonged complete remission. Anticancer Drugs 2012;23:1112-7.
183. Tueche SG, Nguyen H, Larsimont D, Andry G. Late onset of tonsillar metastasis from breast cancer. Eur J Surg Oncol 1999;25:439-40.
184. McCarty MJ, Vukelja SJ. Atypical medullary carcinoma of the breast metastatic to the oral cavity. Am J Otolaryngol 1994;15:289-91.
185. Poulopoulos AK, Antoniades K, Kiziridou A. Bilateral metastatic breast angiosarcoma to the mandibular gingiva: Case report. Oral Oncol 2001;37:199-201.
186. Billan S, Abdah-Bortnyak R, Stein ME, Kuten A. Base of the tongue metastasis: Aggressive behavior of triple-negative breast carcinoma. Israel Med Assoc J 2009;11:250.
187. Salama AR, Jham BC, Papadimitriou JC, Scheper MA. Metastatic neuroendocrine carcinomas to the head and neck: Report of 4 cases and review of the literature. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2009;108:242-7.
188. Tenzer JA, Rypins RD, Jakowatz JG. Malignant cystosarcoma phyllodes metastatic to the maxilla. J Oral Maxillofac Surg 1988;46:80-2.
189. Rajesh KS, Varma BR, Bhat KM. Metastasis to maxillary gingiva from carcinoma of breast. A case report. Indian J Dent Res 1998;9:23-7.
190. Murakawa T, Nakajima J, Fukami T, Tanaka M, Takeuchi E, Takamoto S. Tonsillar metastasis from large cell carcinoma of the lung. Jpn J Thorac Cardiovasc Surg 2001;49:377-80.
191. Bogart SF, Sacks HG, DeMarco LC. Metastatic leiomyosarcoma of the palate. J Oral Maxillofac Surg 1990;48:1338-40.
192. Ettl T, Kleinheinz J, Mehrotra R, Schwarz S, Reichert TE, Driemel O. The buccal minor salivary glands as starting point for a metastasizing adenocarcinoma-Report of a case. Head Face Med 2008;4:16.
193. Pozzi EC, Altermatt HJ, Rees TD, Bornstein MM. Exophytic mass of the gingiva as the first manifestation of metastatic pulmonary adenocarcinoma. J Periodontol 2008;79:187-91.
194. Mavili E, Ozturk M, Yucel T, Yuce I, Cagli S. Tongue metastasis mimicking an abscess. Diagn Interv Radiol 2010;16:27-9.
195. Seddon DJ. Tonsillar metastasis at presentation of small cell carcinoma of the lung. J R Soc Med 1989;82:688.
196. Murray LJ, Higham J, Suvarna SK, Craig GT, Bridgewater CH, Fisher PM, *et al.* Oral presentation of malignant mesothelioma. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2011;111:e21-6.
197. Watanabe E, Touge H, Tokuyasu H, Kawasaki Y. Gingival metastasis of adenocarcinoma from the lung. Resp Med CME 2008;1:103-6.
198. Orlandi A, Basso M, Di Salvatore M, Federico F, Cassano A, Barone C. Lung adenocarcinoma presenting as a solitary gingival metastasis: A case report. J Med Case Rep 2011;5:202.
199. Kim SM, Myoung H, Choung PH, Kim MJ, Lee SK, Lee JH. Metastatic leiomyosarcoma in the oral cavity: Case report with protein expression profiles. J Craniomaxillofac Surg 2009;37:454-60.
200. Hadar T, Mor C, Har-El G, Sidi J. Anaplastic thyroid carcinoma metastatic to the tonsil. J Laryngol Otol 1987;101:953-6.
201. Davies RJ, Pring M, Aw J, Hughes CW, Thomas SJ. Isolated submandibular metastasis from a contralateral thyroid papillary microcarcinoma: An unusual case. Dentomaxillofac Radiol 2009;38:546-9.
202. Piattelli A, Fioroni M, Rubini C. Gingival metastasis from a medullary thyroid carcinoma: Case report. J Periodontol 2000;71:112-6.
203. Thomas G, Sreelatha KT, Pradeep VM, Pandey M. Follicular carcinoma of the thyroid gland with initial presentation as an oral soft tissue mass: Report of a case. J Oral Maxillofac Surg 2001;59:819-22.
204. Ismail SB, Abraham MT, Zaini ZB, Yaacob HB, Zain RB. Metastatic follicular thyroid carcinoma to the mandible: A case report. Cases J 2009;2:6533.
205. Narin S, Batra H. Metastatic carcinoma of maxilla secondary to primary follicular carcinoma ofthyroid gland - A case report. Indian J Dent 2011;2:30-2.
206. Yokoe KA, Ogoshi K, Ogawara K, Endo-Sakamoto Y, Ono K, Shiiba M, *et al.* Mandibular metastasis from thyroid follicular carcinoma: A case report. Asian J Oral Maxillofac Surg 2010;22:208-11.
207. Basely M, Bonnel S, Maszelin P, Verdalle P, Bussy E, de Jaureguiberry JP. A rare presentation of metastatic renal clear cell carcinoma to the tongue seen on FDG PET. Clin Nucl Med 2009;34:566-9.
208. Torres-Carranza E, Garcia-Perla A, Infante-Cossio P, Belmonte-Caro R, Loizaga-Iriondo JM, Gutierrez-Perez JL. Airway obstruction due to metastatic renal cell carcinoma to the tongue. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2006;101:e76-8.
209. Morvan JB, Veyrieres JB, Mimouni O, Cathelinaud O, Allali L, Verdalle P. Clear-cell renal carcinoma metastasis to the base of the tongue and sphenoid sinus: Two very rare atypical ENT locations. Eur Ann Otorhinolaryngol Head Neck Dis 2011;128:91-4.
210. Novak P, Sukosd F, Hamar S, Nemeth I, Tiszlavicz L, Szalay I, *et al.* Metachronous clear cell carcinoma of the tongue and kidney: A diagnostically challenging coincidence. Oral Surg Oral Med Oral Pathol Oral Radiol 2012;114:e25-30.
211. Marioni G, Gaio E, Poletti A, Derosas F, Staffieri A. Uncommon metastatic site of renal adenocarcinoma: The oral tongue. Acta Otolaryngol 2004;124:197-201.
212. Emor H, Olkaya Kaptan ZK, Tuzunar A, Akgedok S. A Rare Case Of Metastatic Tonsillar Malignant Melanoma. The Internet Journal of Otorhinolaryngology 2007;7.
213. Blinder D, Taicher S. Metastatic basal cell carcinoma presenting in the oral cavity and auditory meatus. A case report and review of literature. Int J Oral Maxillofac Surg 1992;21:31-4.
214. Tanaka N, Hidaka S, Yamamura M, Ohyama H, Urade M. Metastatic cutaneous carcinosarcoma to the tongue. Int J Oral Maxillofac Surg 2010;39:1033-6.
215. Sood S, Nair SB, Fenwick JD, Horgan K. Metastatic melanoma of the tonsil. J Laryngol Otol 1999;113:1036-8.
216. Bonan PR, Laranjeira AL, Martelli-Junior H, Guimaraes AL, Vargas PA, Coletta RD. Synchronous metastatic melanoma presenting as gingival and facial swelling: A case report and review of the literature. J Periodontol 2008;79:2371-7.
217. Kuttan NA, Flemming DK, Dane JN, Ang DB. Metastatic lesion of the anterior mandible with an occult primary: A case report. Spec Care Dentist 2006;26:76-80.
218. Elkhoury J, Cacchillo DA, Tatakis DN, Kalmar JR, Allen CM, Sedghizadeh PP. Undifferentiated malignant neoplasm involving the interdental gingiva: A case report. J Periodontol 2004;75:1295-9.
219. Davidson NG, Moyo C. Oral cavity metastasis from carcinoma of the cervix. Int J Gynaecol Obstet 1991;35:79-82.
220. Tomikawa M, Higuchi Y, Saku M, Takeshita M, Yoshida K, Sugimachi K. Carcinoma of the colon metastatic to the lower gingiva. Dig Surg 2001;18:333-5.
221. Favia G, Maiorano E, Lo Muzio L. Image of the month. Gingival metastasis from colonic adenocarcinoma. Clin Gastroenterol Hepatol 2010;8:A28.
222. Meyer I, Shklar G. Involvement of the mandible and oral mucosa in a case of rectal adenocarcinoma with generalized metastases; report of a case. Oral Surg Oral Med Oral Pathol 1958;11:69-78.
223. Naylor GD, Auclair PL, Rathbun WA, Hall EH. Metastatic adenocarcinoma of the colon presenting as periradicular periodontal disease: A case report. Oral Surg Oral Med Oral Pathol 1989;67:162-6.

224. Park KK, Park YW. Tonsillar metastasis of signet-ring cell adenocarcinoma of the colon. Ear Nose Throat J 2010;89:376-7.
225. Hsu HC, Huang EY, Eng HL. Cheek mass as a presentation of metastatic rectal cancer. Chang Gung Med J 2002;25:345-8.
226. Singh T, Amirtham U, Satheesh CT, Lakshmaiah KC, Suresh TM, Babu KG, *et al.* Floor-of-mouth metastasis in colorectal cancer. Ann Saudi Med 2011;31:87-9.
227. Ng S, Lee J. Education and imaging. Gastrointestinal: Gingival metastasis from rectal carcinoma. J Gastroenterol Hepatol 2011;26:1079.
228. Cantero R, Diez L, Pérez JCG, Gómez F, Sierra E, Sastre J, *et al.* Gingival metastasis as first sign of a rectal cancer coloproctology. 1998;20:229-32.
229. Kawamura M, Nakabayashi Y, Otsuka M, Sakata H, Yanaga K. Gingival metastasis from rectal cancer. J Gastrointest Surg 2008;12:1121-2.
230. Wang H, Chen P. Palatine tonsillar metastasis of rectal adenocarcinoma: A case report and literature review. World J Surg Oncol 2013;11:114.
231. Hassan MA, Bhuiyan RA, Rahman MM, Mahmud ME. Metastatic Jaw Swelling as the Manifestation of Leiomyosarcoma of Uterus - A Case Report. J Bangladesh Coll Phys Surg 2011;29:96-8.
232. Fernandez-Barriales M, Garcia-Montesinos B, Garcia Reija F, Mayorga Fernandez M, Saiz Bustillo R. Metastatic leiomyosarcoma of the oral region from a uterine primary: A case report and review of the literature. J Oral Maxillofac Surg 2013;71:1626-33.
233. Vasconcelos Carvalho Md, Hopp RN, Brum Correa M, Totti V, Jorge J, Vargas PA. Oral metastasis of uterine carcinoma: Case report and 83-year review of this uncommon occurrence. Arch Oncol 2012;20:75-80.
234. Friedrich RE, Zustin J. Late metastasis of gastrointestinal stromal tumour to the oral cavity. Anticancer Res 2010;30:4283-8.
235. Nishide MF, Donjo T, Imahori T, Kanamura N. Metastatic Adenocarcinoma of the Gingiva after Metachronous Primary Tumours. Asian J Oral Maxillofac Surg 2004;16:265-8.
236. Colombo P, Tondulli L, Masci G, Muzza A, Rimassa L, Petrella D, *et al.* Oral ulcer as an exclusive sign of gastric cancer: Report of a rare case. BMC Cancer 2005;5:117.
237. Yamaguchi E, Uchida M, Makino Y, Tachibana M, Sato T, Yamamoto Y, *et al.* Tonsillar metastasis of gastric cancer. Clin J Gastroenterol 2010;3:289-95.
238. Zepiridis L, Zafrakas M, Theodoridis TD, Kaplanis K, Dinas KK, Bontis JN. A unique case of palatinate tonsil metastasis from endometrial cancer. Eur J Gynaecol Oncol 2009;30:229-30.
239. Altintas A, Vardar MA, Aridogan N, Doran F, Tuncer I. Choriocarcinoma metastatic to the maxillary gingiva. Eur J Surg Oncol 1995;21:579-80.
240. Baden E, Duvillard P, Micheau C. Metastatic papillary endometrial carcinoma of the tongue. Case report and review of the literature. Arch Pathol Lab Med 1992;116:965-8.
241. Marioni G, Savastano M, Mattiello L, Koussis H, Carpene S, Marino F, *et al.* Tongue base metastasis from neuroendocrine endometrial small cell carcinoma. Am J Otolaryngol 2007;28:284-7.
242. Sasaki H, Ohara N, Minamikawa T, Umeda M, Komori T, Kojima N, *et al.* Gingival metastasis from ovarian mucinous cystadenocarcinoma as an initial manifestation (a rare case report). Kobe J Med Sci 2008;54:E174-82.
243. Munakata R, Sawair FA, Cheng J, Saku T. Gingival metastasis of ovarian carcinoma: Report of a case and review of the literature. Int J Oral Maxillofac Surg 2009;38:1123-6.
244. Kanazawa H, Sato K. Gingival metastasis from primary hepatocellular carcinoma: Report of a case and review of literature. J Oral Maxillofac Surg 1989;47:987-90.
245. Huang SF, Wu RC, Chang JT, Chan SC, Liao CT, Chen IH, *et al.* Intractable bleeding from solitary mandibular metastasis of hepatocellular carcinoma. World J Gastroenterol 2007;13:4526-8.
246. Pliskin ME, Mastrangelo MJ, Brown AM, Custer RP. Metastatic melanoma of the maxilla presenting as a gingival swelling. Oral Surg Oral Med Oral Pathol 1976;41:101-4.
247. Shehab Z, Desousa S, Pahor AL. Metastasis in tongue from carcinoma of bronchus: A case report. J Laryngol Otol 1994;108:1099-101.
248. Angiero F, Torti S, Crippa R, Stefani M. Oral metastasis of ciliary body melanoma. A case report. Minerva Stomatol 2006;55:401-7.
249. Alves FA, Lopes MA, Ikeda MK, Kowalski LP, Almeida OP. Oral metastasis of telangiectatic osteosarcoma. Oral Dis 2003;9:104-6.
250. Chang TS, Liaw CC, Lee KF, Wu CS. Gingival metastasis from gallbladder cancer. Chang Gung Med J 2002;25:553-6.
251. Sherr DL, Fountain KS, Piro JD. Chondrosarcoma metastatic to the oral cavity. Oral Surg Oral Med Oral Pathol 1985;59:622-6.
252. Taicher S, Mazar A, Hirshberg A, Dayan D. Metastatic chondrosarcoma of the gingiva mimicking a reactive exophytic lesion: A case report. J Periodontol 1991;62:223-6.
253. Wang CL, Yacobi R, Pharoah M, Thorner P. Ewing's sarcoma: Metastatic tumor to the jaw. Oral Surg Oral Med Oral Pathol 1991;71:597-602.
254. Roser SM, Nicholas TR, Hirose FM. Metastatic chondrosarcoma to the maxilla: Review of the literature and report of case. J Oral Surg 1976;34:1012-5.
255. Semenzati Gde O, Moz LE, Weber SA, Martins MG, Martins RH. Tonsilar metastases of melanoma in an older person. Age Ageing 2013;42:545-6.
256. Loehn B, Walvekar RR, Harton A, Nuss D. Mandibular metastasis from a skull base chordoma: Report of a case with review of literature. Skull Base 2009;19:363-8.
257. Hirshberg A, Buchner A. Metastatic tumours to the oral region. An overview. Eur J Cancer B Oral Oncol 1995;31:355-60.
258. Allon I, Pessing A, Kaplan I, Allon DM, Hirshberg A. Metastatic tumors to the gingiva and the presence of teeth as a contributing factor: A literature analysis. J Periodontol 2014;85:132-9.
259. Noble S. The challenges of managing cancer related venous thromboembolism in the palliative care setting. Postgrad Med J 2007;83:671-4.
260. Irani S Monsef Esfahani A, Bidari Zerehpoush F. Detection of *Helicobacter pylori* in Oral Lesions. J Dent Res Dent Clin Dent Prospects 2013;7:230-7.
261. Kwon MS, Ko SO, Cho NP, Kim OH, Shin HK, Baek JA, *et al.* Gastric signet-ring cell adenocarcinoma metastatic to the gingiva: A case report. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2006;102:62-6.
262. Dai CY, Haqq CM, Puzas JE. Molecular correlates of site-specific metastasis. Semin Radiat Oncol 2006;16:102-10.
263. Hirshberg A, Leibovich P, Buchner A. Metastatic tumors to the jawbones: Analysis of 390 cases. J Oral Pathol Med 1994;23:337-41.
264. Lim SY, Kim SA, Ahn SG, Kim HK, Kim SG, Hwang HK, *et al.* Metastatic tumours to the jaws and oral soft tissues: A retrospective analysis of 41 Korean patients. Int J Oral Maxillofac Surg 2006;35:412-5.
265. Tiwari A, Kumar N, Bajpai R, Lal P. Bone metastasis from ovarian cancer. J Cancer Res Ther 2007;3:34-6.
266. Chambers AF, Groom AC, MacDonald IC. Dissemination and growth of cancer cells in metastatic sites. Nat Rev Cancer 2002;2:563-72.
267. Hirshberg A, Leibovich P, Buchner A. Metastases to the oral mucosa: Analysis of 157 cases. J Oral Pathol Med 1993;22:385-90.
268. Gimbrone MA, Jr., Leapman SB, Cotran RS, Folkman J. Tumor dormancy *in vivo* by prevention of neovascularization. J Exp Med 1972;136:261-76.
269. Mantovani A, Allavena P, Sica A, Balkwill F. Cancer-related inflammation. Nature 2008;454:436-44.
270. Aydogan LB, Myers JN, Myers EN, Kirkwood J. Malignant melanoma metastatic to the tonsil. Laryngoscope 1996;106:313-6.
271. Ramamurthy L, Nassar WY, Hasleton PS. Metastatic melanoma of the tonsil and the nasopharynx. J Laryngol Otol 1995;109:236-7.
272. Seddon DJ. Tonsillar metastasis at presentation of small cell carcinoma of the lung. J R Soc Med 1989;82:688.
273. Sanchez Aniceto G, Garcia Penin A, de la Mata Pages R, Montalvo Moreno JJ. Tumors metastatic to the mandible: Analysis of nine cases and review of the literature. J Oral Maxillofac Surg 1990;48:246-51.
274. Zegarelli DJ, Tsukada Y, Pickren JW, Greene GW Jr. Metastatic tumor to the tongue. Report of twelve cases. Oral Surg Oral Med Oral Pathol 1973;35:202-11.
275. Benito I, Alvarez-Gago T, Morais D. Tonsillar metastasis from adenocarcinoma of the stomach. J Laryngol Otol 1996;110:291-3.
276. Brownson RJ, Jaques WE, LaMonte SE, Zollinger WK. Hypernephroma metastatic to the palatine tonsils. Ann Otol Rhinol Laryngol 1979;88:235-40.
277. Califano L, Sanguedolce F, Staibano S, Pannone G, Tortorella S, Serpico R, *et al.* Large oral soft tissue metastasis from anaplastic carcinoma of the lung mimicking a primitive malignancy: Case report and brief review of the literature. Minerva Stomatol 2008;57:447-51.
278. Hasim FW, Poon CC, Smith AC. Prolonged survival with confirmed metastatic pulmonary ameloblastoma. Int J Oral Maxillofac Surg 2007;36:953-5.