Turkish Journal of Geriatrics
DOI: 10.31086/tjgeri.2019150580
2019;22 (1):112-116

■ Meriç BİLGİÇ KÜÇÜKGÜVEN[1]
■ Alper AKTAŞ[1]
■ Deniz ATEŞ ÖZDEMİR[2]

CASE REPORT

A RARE CASE OF MAXILLARY HEPATOCELLULAR CARCINOMA METASTASIS MIMICKING PYOGENIC GRANULOMA IN A GERIATRIC PATIENT

Abstract

Metastasis to the oral region is an uncommon characteristic of hepatocellular carcinoma. As such, diagnosis of these malignancies can be challenging due to clinical similarities with benign lesions. This report describes a 70-year-old woman with a rare case of oral metastasis of hepatocellular carcinoma that manifested in the anterior maxilla. The diagnosis of hepatitis B- and C-related hepatocellular carcinoma was made one year before presentation to the authors' clinic. At the time of admission, the patient was undergoing medication with Sorafenib. An erythematous, haemorrhagic, painless lesion exhibited rapid growth in the maxilla over a two-month period. Based on clinical characteristics, the lesion was considered a pyogenic granuloma before pathological examination. After surgical intervention, the healing process in the eight-month follow-up period was uneventful, with no evidence of recurrence. This report highlights the importance of meticulous clinical and pathological evaluations in patients with suspected oral metastatic lesions that may mimic benign conditions.

Keywords: Carcinoma, Hepatocellular; Neoplasm Metastasis; Oral Manifestations; Pathology, oral

OLGU SUNUMU

GERİATRİ YAŞ GRUBUNDAKİ BİR HASTADA HEPATOSELLÜLER KARSİNOMUN NADİR RASTLANAN VE PYOJENİK GRANÜLOMAYI TAKLİT EDEN MAKSİLLER METASTAZI: OLGU SUNUMU

Öz

Oral bölgeye metastaz hepatosellüler karsinomun nadir bir özelliğidir. Benign lezyonlara klinik benzerlikleri nedeniyle bu malign lezyonların teşhisi zor olabilir. Bu vaka raporunda, hepatosellüler karsinomun nadir görülen anterior maksilla metastazı saptanan 70 yaşında kadın hasta anlatılmıştır. Hepatit B ve C'ye bağlı hepatosellüler karsinom teşhisi, hasta kliniğimize gelmeden bir yıl önce konulmuştur. Başvuru esnasında, hasta Sorafenib tedavisi altındadır. Maksillada görülen eritamatöz, hemorajik, ağrısız lezyon iki aylık süreç içerisinde hızlı büyüme göstermiştir. Lezyon patolojik inceleme öncesinde klinik özelliklere dayanılarak piyojenik granüloma ön tanısıyla değerlendirilmiştir. Cerrahi müdahale sonrasında, iyileşme periyodu sekiz aylık takip boyunca sorunsuz olmuştur ve rekürrensi gösterecek herhangi bir durum saptanmamıştır. Bu raporda, benign durumları taklit eden oral metastatik lezyonlardan şüphelenilen hastalarda titiz klinik ve patolojik değerlendirmelerin önemi vurgulanmaktadır.

Anahtar sözcükler: Hepatosellüler karsinom; Metastaz; Oral belirtiler; Oral patoloji

CORRESPONDANCE
Meriç BİLGİÇ KÜÇÜKGÜVEN
Hacettepe University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara, Turkey

Phone: 03123052220
e-mail: mericblg@gmail.com

Received: 06/12/2018
Accepted: 02/01/2019

[1] Hacettepe University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara, Turkey
[2] Hacettepe University, Faculty of Medicine, Department of Pathology, Ankara, Turkey

INTRODUCTION

Metastatic tumours of the oral region are uncommon and account for only 1-4% of all oral malignancies (1). Oral metastases can occur in the jaw bones and, more rarely, in the oral soft tissues. These malignancies are likely to exhibit non-specific symptoms and may clinically mimic benign lesions, thus posing a diagnostic challenge to practitioners (2). The lungs, kidney, breast, and bone comprise the majority of primary sites that metastasize to the oral cavity (3). Hepatocellular carcinoma (HCC) is the most common liver malignancy and rarely exhibits metastatic lesions in the oral tissues. In 1957, the first case of HCC metastasis to the oral region was reported by Dick et al. (4); since then, approximately 50 cases have been documented in the literature (5). In the present report, we describe a case of HCC metastasis to the gingiva, clinically mimicking a pyogenic granuloma.

CASE

A 70-year-old woman previously diagnosed with HCC was referred to the authors' hospital in April 2018 with a two-month history of bleeding gingival mass adjacent to the left upper canine. Detailed medical history revealed that the HCC diagnosis was made one year before presentation to the clinic, and the patient was currently under medication with Sorafenib for the management of hepatitis B- and C-related HCC. At the time of admission, the patient had been using partial dentures and exhibited a nodular mass with no symptoms except for bleeding. Additionally, it was noted that the lesion exhibited rapid growth over a two-month period. On clinical examination, an erythematous, haemorrhagic and painless mass, measuring 2.0×1.5 cm, was detected in the maxillary anterior gingiva adjoining the upper left canine (Figure 1)

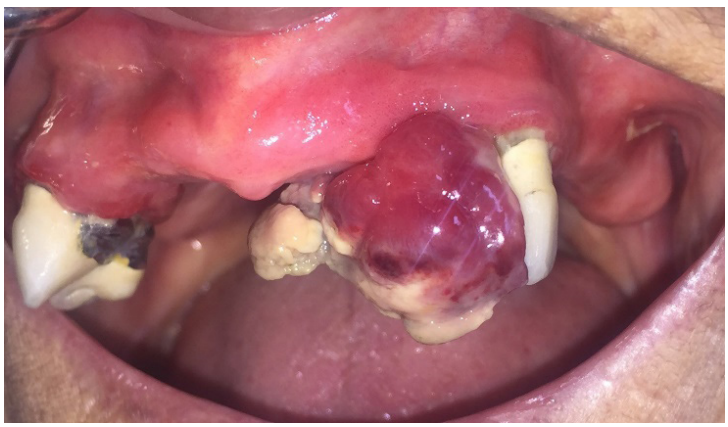

Figure 1. Clinical appearance of the erythematous and haemorrhagic mass in the maxillary anterior gingiva adjoining the upper left canine.

On palpation, the lesion was firm in consistency, with mild tenderness. Panoramic radiography revealed widening of the periodontal ligament space around the left maxillary canine, with no remarkable alterations in the structure of the bone (Fig. 2).

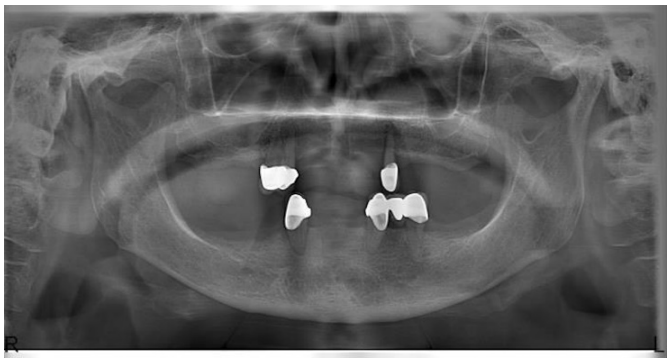

Figure 2. Panoramic radiograph revealing widening of the periodontal ligament space around the left maxillary canine and no remarkable alterations in the structure of the bone.

Based on preoperative clinical features of the lesion, it was considered to be a pyogenic granuloma. Excisional biopsy and mobile tooth extraction were performed. No alveolar bone destruction was observed intraoperatively; nevertheless, aggressive curettage was performed to prevent the possibility of recurrence. The surgery was completed with primary closure of the mucosal flap without any complications, and the specimen was sent for pathological examination.

Microscopically, excisional biopsy (Protocol Number: B-11941-18) revealed a highly vascular and cellular neoplasm, with characteristic trabecular and pseudoglandular architecture localized beneath the ulcerated mucosal epithelium (Fig. 3A). Neoplastic cells, with 22 mitoses per 10 high-power fields, exhibited abundant eosinophilic cytoplasm with prominent nucleoli. Immunohistochemically, the neoplastic cells were positive for CAM 5.2 and Hep Par-1, which supports the diagnosis of metastatic HCC (Fig. 3B).

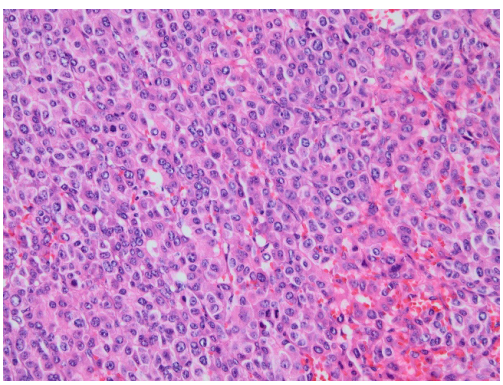

Figure 3A.

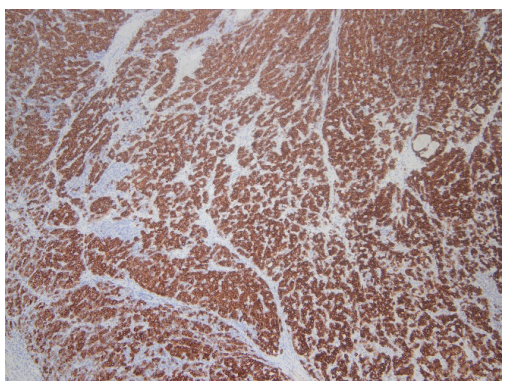

Figure 3B.

Figure 3. A. Excisional biopsy: Epithelioid cells with high nuclear/cytoplasmic ratio, and with trabecular and pseudoglandular architecture (hematoxylin and eosin stain, original magnification ×200). **B:** Immunohistochemically, the neoplastic cells are positive for Hep Par-1, supporting the diagnosis of metastatic hepatocellular carcinoma (Hep par-1 stain, original magnification ×40).
Metastatic melanoma was excluded by negative immunostaining for HMB-45, S100, and Melan A.

The healing process during the eight-month follow-up period was uneventful and the patient demonstrated no evidence of recurrence (Fig. 4).

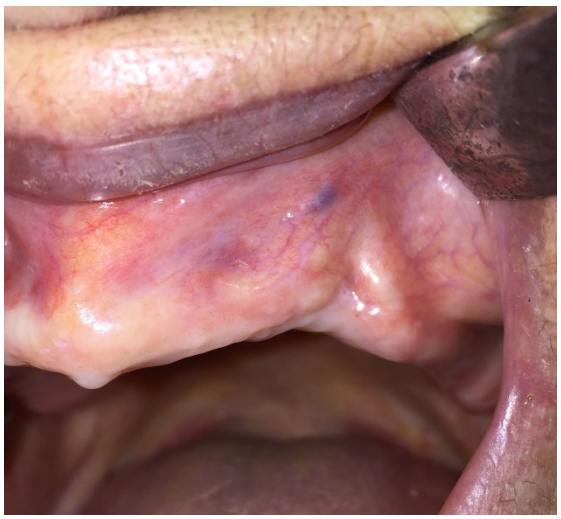

Figure 4. Postoperative appearance after a 3-month follow up period.
The oncologist was informed and, furthermore, lung metastasis was detected. It was decided, however, that the patient will continue with the current medical treatment protocol.

DISCUSSION

Distant metastasis to the oral region is a rare phenomenon, comprising only 1% of all oral malignancies (2). These metastatic neoplasms can extend to the jaw bones or, more rarely, occur in the oral soft tissues. The clinical diagnosis of oral metastasis is a challenge for oral surgeons; therefore, these lesions are usually misdiagnosed as pyogenic granuloma, hyperplastic gingival inflammation, peripheral giant cell granuloma, or other benign tumours (6). Another significant consideration is that approximately 25% of oral metastases account for the first sign of an undiscovered malignancy at a distant site (7). Therefore, routine histopathological evaluation is crucial for proper management in oral lesions.

HCC, which occurs mainly in male patients, is the most common liver cancer, and is usually associated with alcoholism, and hepatitis B and C infections (1). Metastasis from an HCC to the oral region is uncommon and the mechanisms of dissemination are not fully understood. However, the current understanding is that metastatic spread to the jaws from an HCC is considered to be mainly via the hematogenous route with accompanying lung metastasis (8) and, the mandible is the most frequently affected site in the maxillofacial region (1). Regarding sex and region of invasion, the present case is an extremely uncommon presentation of HCC metastasis.

In most cases, clinical findings of metastatic oral neoplasms imitate reactive or hyperplastic lesions; moreover, radiographic features of these lesions are usually not pathognomonic (5). Similarly, the lesion in this case had erythematous and haemorrhagic characteristics and, furthermore, exhibited rapid growth in a short period of time. It had a lobular surface, with no evidence of a malignant condition in the panoramic radiograph. Moreover, the presence of some etiologic factors,

such as poor oral hygiene and incompatible dentures, increased the tendency to diagnose this as a pyogenic granuloma clinically.

Palliative care is required to improve the quality of life and provide pain relief in the presence of extrahepatic metastatic HCC, which is associated with poor long-term prognosis (9). Sorafenib, an inhibitor of tyrosine protein kinase, was approved for treatment of advanced HCC. Nevertheless, its therapeutic effect in HCC patients with extrahepatic metastasis remains unclear. A previous study reported that Sorafenib could be a long-term treatment option for patients with advanced HCC, regardless of extrahepatic metastasis (10). From a different perspective, due to the occurrence of maxillary metastasis under Sorafenib treatment in the present case, alternative drug options-rather than this medicament for advanced HCC–may be a target of future investigations.

In conclusion, maxillary metastases of HCC are rare and may mimic benign lesions; hence, awareness and meticulous clinical and histopathological examinations play an important role in ensuring proper treatment.

Conflicts of interest:

None .

REFERENCES

1. Misra SR, Shankar YU, Rastogi V, Maragathavalli G. Metastatic hepatocellular carcinoma in the maxilla and mandible, an extremely rare presentation. Contemp Clin Dent 2015;6 (Suppl 1):S117-21. (PMID:25821363).
2. Hirshberg A, Berger R, Allon I, Kaplan I. Metastatic tumors to the jaws and mouth. Head Neck Pathol 2014;8(4):463-74. (PMID:25409855).
3. Meyer I, Shklar G. Malignant tumors metastatic to mouth and jaws. Oral Surg Oral Med Oral Pathol 1965;20:350-62. (PMID:14342927).
4. Dick A, Mead SG, Mensh M, Schatten WE. Primary hepatoma with metastasis to the mandible. Am J Surg 1957;94(6):846-50. (PMID:13478800).
5. Greenstein A, Witherspoon R, Iqbal F, Coleman H. Hepatocellular carcinoma metastasis to the maxilla: a rare case. Aust Dent J 2013;58(3):373-5. (PMID:23981222).
6. 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(8):743-52. (PMID:18061527).
7. Kumar G, Manjunatha B. Metastatic tumors to the jaws and oral cavity. J Oral Maxillofac Pathol 2013;17(1):71-5. (PMID:23798834).
8. Hirshberg A, Leibovich P, Buchner A. Metastases to the oral mucosa: analysis of 157 cases. J Oral Pathol Med 1993;22(9):385-90. (PMID:8301602).
9. Natsuizaka M, Omura T, Akaike T, et al. Clinical features of hepatocellular carcinoma with extrahepatic metastases. J Gastroenterol Hepatol 2005;20(11):1781-7. (PMID:16246200).
10. Nakano M, Tanaka M, Kuromatsu R, et al. Sorafenib for the treatment of advanced hepatocellular carcinoma with extrahepatic metastasis: a prospective multicenter cohort study. Cancer Med 2015;4(12):1836-43. (PMID:26471348).