

Metastatic colorectal adenocarcinoma of mandible

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ABSTRACT

Oral metastasis from the colon is quite rare with limited reporting and scientific evidence. The most common metastasis from colorectal cancer is to the liver followed by lungs, bones, and other organs. However rare occurrences like metastasis to the oral cavity might worsen the prognosis and treatment outcome. Oral metastatic tumors account only 1% of all the malignant neoplasms of the jaw. In most of the cases metastasis has been reported in the jaw bones compared to soft tissues. Persistent pain and delayed, prolonged healing should raise the question of an underlying lesion. An unusual case of secondary oral metastasis presenting as an ulcero-proliferative growth in left mandibular alveolus from the primary colon adeno carcinoma has been reported.

KEYWORDS: colorectal adenocarcinoma; oral metastasis; mandibular alveolus; orthopantomography

INTRODUCTION

Being the third most common cancer occurring in women and fourth most common cancer occurring in men, colorectal cancer has a varied prevalence rate among varied population, with risk factors being smoking, obesity, unhealthy diet and is more common in developed countries [1]. It is also the fourth common cause of cancer related death [2]. With more awareness, time to time screening and modification of lifestyle along with advanced diagnostic aids and prompt treatment the mortality rate of colorectal cancers has marginally reduced. However, metastasis is a huge area of concern, as hematogenous spread is the predominant route [3]. Oral metastasis from the colon is quite rare (1%) with limited reporting and scientific evidence. Metastasis from the lungs and breasts are more common [3]. We herein report an unusual case of oral metastasis presenting as an ulcero-proliferative growth in left mandibular alveolus from the primary colon adeno carcinoma.

CASE PRESENTATION

A female patient aged 30 years came with the chief complaint of a growth in the left lower back tooth region for the past 20 days. The growth appeared one day after the patient underwent extraction of her decayed tooth. Initially it started as a small growth and rapidly grew to reach the current size within 20 days. She had mild discomfort while swallowing and pain on mastication.

On further investigation, the patient reported a medical history of colorectal carcinoma diagnosed five years ago, for which she underwent segmental resection of the sigmoid colon and rectum, followed by three cycles of chemotherapy. Post this, PETCT had revealed an active liver metastasis for which she continued cycles of chemotherapy.

On extraoral examination, a mild diffuse swelling was present on the left side of the lower third of the face involving the left mandibular region. The swelling was soft in consistency and non-tender. Three submandibular lymph nodes were palpable on the left side each measuring about 1x1 cm in size. All three were not fixed to the underlying structures and were non-tender.

On intraoral examination, a solitary ulcero-proliferative growth was present on the alveolar ridge in relation to edentulous 36 region. It was approximately 2x1.5 cm in size and oval. It was erythematous and had well demarcated margins. It was firm in consistency and had an irregular, rough surface with well-defined margins. It readily bled when palpated and mild tenderness was present. The base of the growth was indurated. There was obliteration of the left lower buccal vestibule (Figure 1).

Based on these findings, a provisional diagnosis of benign/malignant ulcero-proliferative growth in relation to edentulous 36 region was given.

The differential diagnosis that were considered were socket granuloma, primary alveolar carcinoma and metastatic tumor.

Orthopantomography (OPT) revealed a radiolucent extraction socket in 36 region. The alveolar margin was irregular and hazy in appearance which may be suggestive of a mild lytic activity (Figure 2). An incisional biopsy of the lesion was taken.

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Fig. 1. Growth intraorally from the extracted socket of left lower molar.



Fig. 2. Orthopantomography showing radiolucency with irregular margins in the left lower molar region.

Histopathological analysis showed parakeratinised stratified squamous epithelium with underlying connective tissue stroma infiltrated by numerous irregular tubular structures lined by columnar cells showing cyto-nuclear pleomorphism. The invading tubular structures were associated with moderate inflammation and surrounding connective tissue was moderately collagenous. Increased vascularity was noted (Figure 3). The infiltrating structures in the connective tissue were compatible with colonic adenocarcinoma.

All these findings helped to conclude the case to be of a metastatic colorectal adenocarcinoma of mandible. Patient was then referred to a higher center for further treatment.

■ DISCUSSION

The most common metastasis from colorectal cancer is to the liver followed by lungs, bones, and other organs. Liver metastasis is known to have a comparatively favorable prognosis. However rare occurrences like metastasis to the oral cavity might worsen the prognosis and treatment outcome [3]. Oral metastatic tumors account only 1% of all the malignant neoplasms of the jaw [4]. In most of the cases metastasis has been reported in the jaw bones when compared to soft tissues. Out of the soft tissue metastatic lesions, most have occurred in the gingiva [5-10]. In one case

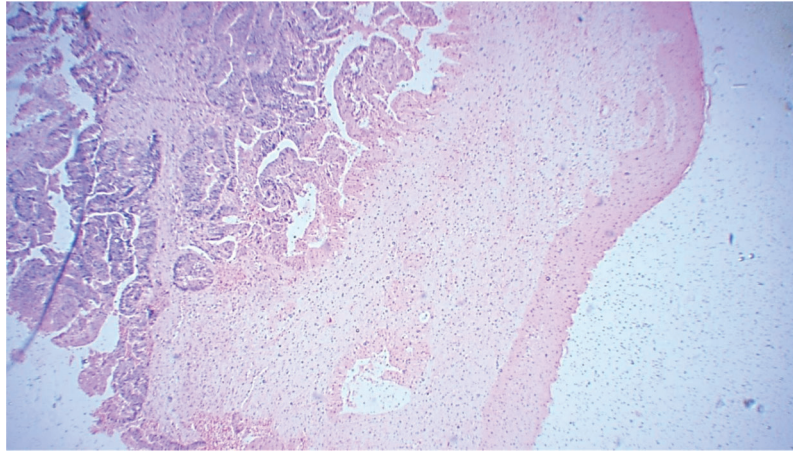


Fig. 3. Microscopical view of the metastatic colonic adenocarcinoma with tubular architecture infiltrating the chorion of the gingival mucosa (HE, x40).

report it was a metastatic growth from the tooth socket [11]. In another case a metastatic growth was seen in the floor of the mouth [4].

Coming to signs and symptoms, even the smallest and most common symptom like gum bleeding or dental pain may be a warning red light for a metastatic tumor. Although we cannot consider all scenarios of dental pain as a suspicion, as it is recorded that only 1.2% of dental pain cases is associated with mandibular metastasis [12], care should be taken that unnecessary extractions should be avoided to merely eliminate pain. According to some authors chronic inflammation and trauma caused by dental extractions triggers the deposition and growth of metastatic cells [12]. In the case discussed above, such was the scenario where the patient had a rapid growth from the socket after an extraction. In later stages symptoms like trismus, intraoral or extraoral swelling, numb chin syndrome etc. may develop. Poor prognosis is determined by severe pain or pathological fractures [12].

No definitive radiographic findings determine metastatic tumors. In some cases, there might not be any lesions or findings may range from osteoblastic radiopaque lesions in case of metastasis from prostate cancer, to osteolytic radiolucent lesions in case of metastatic lesions from kidney, lungs, or breast. Mixed lesions may also be seen [12]. Once a metastatic lesion is suspected advanced imaging, scintigraphy and other regional investigations may be done to identify the source of metastasis, possible route of spread and other possible sites.

CONCLUSION

The signs observed in the oral cavity not only reflects mouth and teeth related problems, but also mirrors our systemic health. Hence rightly said "Oral Cavity is the index of our body". This insists on meticulous and thorough examination of the oral cavity not only large swellings but even the most minor signs and symptoms experienced by the patient. Oral metastases usually are evidence of a wide-spread disease and indicate a severe prognosis.

Conflict of Interest

Nothing to declare.

Source of Funding

Nothing to declare.

Informed consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

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