

CASE REPORT

Squamous cell carcinoma cervix stage IIIB metastatic to oral cavity: A case report and literature review

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SUMMARY

Metastatic cervical cancers to the oral cavity are uncommon. These metastases most commonly present as lesions of the jaw bones and the mandible. A 57-year-old female patient complained of mass lesion in her oral cavity after definitive treatment for squamous cell carcinoma of the cervix stage IIIB. On examination a swelling of 3cm in size was found on the left side of buccal vestibule adjacent to the lower canine tooth. Wide local excision was performed, and histopathology results showed a squamous cell carcinoma of moderate differentiation. She was continued with segmental mandibulectomy, supraomohyoid neck dissection and plate-screw reconstruction. Radiotherapy was given as an adjuvant therapy.

KEY WORDS:

cervical cancer, diagnosis, management, metastatic disease, oral cavity mass

INTRODUCTION

Globally, cervical cancer (CC) account for an estimated 570,000 cases and 311,000 deaths in 2018 and this disease ranks as the fourth most frequently diagnosed cancer and the fourth leading cause of death due to cancer in women.¹ The distribution of histologic types of CC was: squamous cell carcinoma (69%), adenocarcinoma, including adenosquamous (25%), and other histology (6%).²

CC can spread by direct extension or by lymphatic or hematogenous dissemination. Metastatic cervical cancer to the oral cavity is uncommon² and these metastases most commonly present as lesions of the jaw bones and the mandible being the most common site. This finding usually constitutes a poor prognosis. We report here a rare case of cervical cancer stage IIIB metastatic to the oral cavity.

CASE REPORT

The patient was a 57-year-old women referred to Universitas Indonesia, Dr. Cipto Mangunkusumo National Referral Hospital due to cervical cancer stage IIIB. Histopathology confirmed a squamous cell carcinoma, with moderate differentiation. She underwent external beam radiotherapy 25 times (50 Gy) and intra cavitary brachytherapy three times (21Gy). All the radiation

therapy was completed on November 19th, 2018. Post radiation evaluation revealed complete response. Two months later, she complained of a mass in the oral cavity, which was progressively increasing in size. On examination a swelling of 3x2 cm in size was found on the left side of buccal vestibule adjacent to lower canine tooth and first premolar. Surface epithelium of the swelling mass was intact with no ulceration, discoloration of fixity to bone. There was no palpable regional lymphadenopathy.

Her vital signs were normal. Patient was conscious and no abnormality detected during heart and lung auscultation. Her abdominal examination revealed no palpable mass. Per speculum and recto-vaginal examination found normal vaginal wall, fibrotic cervix, parametrium on both sides were normal, uterus size was normal and rectal mucosa with no pelvic mass detected.

The patient referred to the Department of Oral and Maxillofacial Surgery. Local excision was performed, and specimen sent to the Pathology Department. The results showed a squamous cell carcinoma, moderate differentiation, with spindle cell component. Human papillomavirus (HPV) genotyping result was positive for HPV DNA. After local excision, the mass grew rapidly (Figure 1). Oropharyngeal MRI with contrast after local excision showing solid mass on left mandible bone, extended to anterior reached subcutis layer and to posterior side infiltrate inferior sublingual area. This mass also extended to medial side reached left genioglossus muscle but not beyond median line of the tongue.

The result of immunohistochemistry revealed that it was positive for Vimentin, referred to metastatic process from cervical squamous carcinoma. We referred the case to Oncology Surgery, to possibility resect gingiva mass. The patient underwent segmental mandibulectomy, supraomohyoid neck dissection and plate-screw reconstruction (Figure 2). Pathology anatomy results showed mucoepidermoid carcinoma high grade, with positive tumour margin on anterior tumour. This patient was given adjuvant radiation therapy with a dose 70Gy on gross tumour and 56Gy on regional lymph nodes, and weekly Cisplatin 40mg/body surface area. The patient provided written informed consent for participation in and for publication of this case report.



Fig. 1: Left gingiva-mandible tumour.

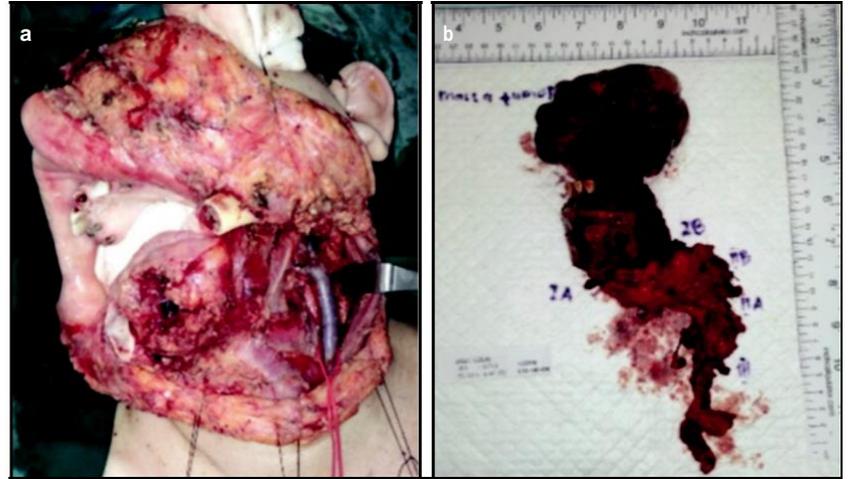


Fig. 2: a) Segmental mandibulectomy, supraomohyoid neck dissection; b) Tumour mass

DISCUSSION

Oral metastatic tumours account for approximately 1% of oral malignancies. The most common primary malignant tumours that metastasize to oral region in women are, in order of frequency, breast, female genital organs (FGO), kidney, and colorectum. The most common FGO site is the uterus, followed by the ovary, fallopian tube and vagina. The present study reported a rare case of oral metastasis from the cervix uteri.²

The process of metastasis is biologically complex, involving detachment from the surrounding cells, regulation of cell motility and invasion, survival, proliferation and evasion of the immune system.³ Metastatic tumours to the oral region are uncommon and may occur in the oral soft tissues or in the jawbones. The early manifestation of oral soft tissue metastases in gingiva, may resemble a hyperplastic or a reactive lesion. In other locations in the oral soft tissues, the clinical presentation is a submucosal mass.⁴ In our patient a submucosal mass measuring 3cm in maximum diameter and the lesion was associated with pain.

The histologic appearance of metastatic disease is often poorly differentiated, making it difficult to determine the location of the primary lesion.⁵ In our case, the cytological diagnosis was confirmed by excisional biopsy and immunohistochemical findings, which were compatible with squamous cell carcinoma. In patients with a known malignant disease, the clinical presentation may favour the pre-operative diagnosis of metastasis. The current suspicion was based on the clinical features of the patient, clinical medical history, laboratory examinations, computerised tomography (CT) and fine needle aspiration cytology (FNAC). It was confirmed by histopathological and immunohistochemical analyses, which were similar for oral and cervix lesions. The metastases to the oral region from a primary tumour in FGO was through the valveless vertebral venous plexus (Batson's plexus), and this has been proposed as a mechanism for bypassing filtration through the lungs; an increase in intrathoracic pressure directs blood flow into this system from the caval and azygous venous system, and thus accounting for the increased distribution of axial skeleton and head and neck metastases.^{4,6}

The prognosis of oral metastases is generally poor, and most patients did not survive more than two years after the initial diagnosis of intraoral metastatic lesion. Patients should be treated in order to improve their quality of life and local resection, radiotherapy or chemotherapy even in a widespread disease should be performed. The choice of therapy is based on the location and number of metastatic lesions, tumour size and clinical condition.⁵ In our patient the health status allowed for resection and chemoradiation. After 3 months of adjuvant therapy, there was no sign of new mass and she showed minimal side effects.

CONCLUSION

Early detection of metastases is very important, especially in oral metastases where prognosis is usually poor. Though a rare finding, the possibility of presence of oral metastatic disease during the diagnosis of primary tumours involving a distant site should always be considered. Clinicians should be aware that masses in soft tissues resembling benign lesions may represent an initial sign of oral metastatic lesion.

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