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Ca Prostate with Oral Metastases: A Case Report and Literature Review

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Abstract

The oral cavity is a very rare site for metastases, it was described in a number of cancers e.g. lung, breast, colon and prostate cancers. Prostate cancer with oral metastasis is uncommon and accounts for less than 2% of oral malignancies. We report a case of buccal mucosa metastases from ca prostate primary, confirmed by histopathology and immunohistochemistry tests.

Keywords: Prostatic cancer; Oral metastasis

Introduction

Prostate cancer is the leading cancer worldwide and among Sudanese men [1]. Generally cancer of the prostate tends to metastasize to the bone, with less than 1% metastasizing to the maxillofacial region. Metastatic tumors to the oral region are uncommon and account for approximately 1% to 1.5% of all malignant oral tumors. However, autopsies of patients with carcinomas revealed a higher frequency of metastatic deposits in the jaw bones which were not manifested clinically, the jawbones, particularly the mandible, were more frequently affected than oral soft tissues [2,3]. Metastatic tumors to the oral cavity from distant tumors are rare, accounting for only 1% of all oral malignancies. They mainly involve the bony structures (particularly the mandible), whereas primary metastases to soft tissues are rare, only 0.1% of oral malignancies. The most common sites of soft tissue involvement are the gingival, tongue, lips, the buccal and palatal mucosa, the primary tumors are mainly lung, breast, kidney, prostate and colon [2-4]. The clinical presentation of oral metastatic lesions is usually swelling, ulceration, pain and or paresthesia e.g. numb chin syndrome, early manifestation of the gingival metastases resembles reactive lesion, such as pyogenic granuloma, peripheral giant cell granuloma, [5]. Because of its rarity, the diagnosis of a metastatic lesion in the oral region is challenging, both to the clinician and to the pathologist, in confirming that a lesion is metastatic and in determining the primary origin [6]. A Canadian study, reported 38 cases of oral metastases, mostly to the mandible followed by the gingival, mucosa and the alveolar ridge. The most common primary sites were the prostate, the lung and the breast [7]. Metastatic prostate cancer carries a poor prognosis. Management strategies include Castration, surgical or medical, and antiandrogens Response to hormonal manipulation is usually good but partial and for a short period, palliative radiotherapy improve quality of life, due to rarity of these cases there is no clear guidelines for their management [8,9].

Case Report

A 60 years old male was diagnosed as a case of Ca Prostate adenocarcinoma, Gleeson score=3+4=7. With PSA level of 100 ng/dl, stage T3 N1 M0, (TNM Staging 2015). The patient was referred to the radiation and isotopes centre Khartoum (RICK), but unfortunately he was unable to come to the centre due to social and financial problems. Two months after diagnosis the patient presented to RICK, with an ulcerated right cheek mucosa massa,10 × 9 cm in diameter (Figure 1). no enlarged cervical nodes and poor dental hygiene. The patient performance status was, WHO=3 h is of low socioeconomic status, with a past history of controlled hypertension, and no history of tobacco or alcohol consumption. CT scan of the head and neck showed a large right oral soft tissue mass (11 × 10) cm causing destruction of the right mandible and involving the right masseter muscle and pterygoid muscle and compressing the tongue and the oropharynx. CT abdomen, pelvis and chest showed an enlarged prostate (5.5 × 7 cm), in addition to multiple enlarged pelvic lymph nodes, the largest one was 2.9 × 2.9 cm, multiple liver deposits, the largest one was 2.6 cm and multiple lungs deposits; the largest was 3.4 × 3.2 cm. The bone scan revealed high uptake in lumbar spine 1, which was indicative of bone metastasis a biopsy from the buccal mass was positive for a denocarcinoma and immunohistochemistry for PSA and prostatic specific alkaline phosphatase was positive, basal cell markers antibodies cytokeratin CK 7.20 were negative, other markers such as AMACR and P63 are not available for us. His complete blood count, urea and electrolytes, creatinine clearance and liver function test, were all normal. So it was confirmed that the oral mass was a result of metastasis from the prostate primary carcinoma. The patient was counselled, and was given hormonal treatment antiandrogen bicalutamide 50 mg (Casodex) daily for 2 weeks), followed by subcutaneous injection of Goserline Acetate 3.6 mg (Zoladex). And a palliative course of radiotherapy to the lumbar spine 10 Gy, single fraction, and to the oral cavity, 40 Gy in 20 fractions were given by cobalt 60, using 2 lateral wedged fields, then he was maintained on daily bicalutamide 50 mg orally and 4 weekly Goserline

Figure 1: Patient photo.

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Figure 2: Computed tomography.

Figure 3: 3D Computed tomography.

injections. He was seen one month and 6 months after treatment, the mass regressed partially and his pain was controlled and his PSA dropped to 44 ng /dl (Figures 2 and 3).

Discussion

Metastatic tumors to the oral cavity from distant tumors are rare, accounting for only 1% of all oral malignancies. They mainly involve the bony structures (particularly the mandible), whereas primary metastases to soft tissues are extraordinarily rare only 0.1% of oral malignancies. The most common sites of soft tissue involvement are the gingiva, tongue, lips the buccal and palatal mucosa. The primary tumors are mainly lung, breast, kidney, prostate and colon. Early manifestation of the oral soft tissues metastases resemble reactive lesions, such as pyogenic granuloma and peripheral giant cell granuloma. Because of its rarity, the diagnosis of a metastatic lesion in the oral region is challenging, both to the clinician and to the pathologist, in recognizing that a lesion is metastatic and in determining the primary site [10]. Torn Daley in 2011, reported 38 cases of oral metastases, mostly to the mandible followed by the gingiva, mucosa and the alveolar ridge, the most common primary sites were the prostate 8 cases, the lung 7 cases, the breast 5 cases, squamous cell carcinomas 4 cases, renal cancer 3 cases, ca colon 2 cases, hepatocellular cancer 2 cases, thyroid cancer one case and unknown primary 6 cases [11].

Piatelli reviewed 390 cases of oral cancers and found 22 cases (5.6%) of oral metastases from primary ca prostate [12]. Nasim reported a similar case and reviewed the English literature and found ten cases of oral metastases from ca prostate primary [13]. Metastatic prostate cancer carries a poor prognosis. Management strategies include Castration, surgical or medical, response to hormonal manipulation is usually good but may be partial and for a short period, palliative radiotherapy relieves symptoms and improve quality of life [14].

Conclusion

We reported a rare case of Carcinoma of the prostate with metastases to the buccal mucosa. This clinical situation illustrates the importance of taking good medical history, clinical examination and pathological tests, to differentiate metastases from oral primary cancers and benign lesions. The diagnosis of a metastatic lesion in the oral region is challenging, both to the clinician and to the pathologist and has a very poor prognosis.

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